City of Aurora
Building Codes Division
15151 E Alameda Pkwy
Aurora, CO 80012
(303) 739-7420

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Building Permit Application

Permit Center ~15151 E Alameda Pkwy ~ Aurora, CO 80012~ (303) 739-7420

Project Address: 1414 S. Potomac St. Unit # 160 Zip code: 80012
Project Name: Women's Health Tenant Finish
Contractor Company Name: Howell Construction Phone: 3/495-9036 Fax:
Contact Person: Marcus Pickworth Email: mpickworth@howellconst.com
Phone: 3/495-9036 Fax:

Online Services now offers email updates of correction items found during plan review as well as email updates for all inspections during the construction phase of your project. If you are interested in receiving these emails please provide your email address. NOTE: Set your email filter to accept emails from "AmandaSystem".

Plan Corrections - Email address: Mark@mep-eng.com
Inspection Corrections – Email address: mpickworth@howellconst.com
Architect and/or Engineer Contact information for correction items:

Architect or Engineer name: MEP Engineering Email: mark@mep-eng.com
Phone # 303-962-7285 Fax:
Owner:(Required for CO) only: The Medical Center of Aurora
Owner address: 1501 S. Potomac St. Valuation / FDA:$ 23,000
Email:
Materials Cost: $

FDA = Fee Determination Assessment. (Also known as the value of project) has no relationship to the construction costs for the building which can vary greatly. Rather, The assessment is used only to determine the appropriate level of fees to fund our code compliance activities.

Architect or Engineer Name: Mark Brown Email: mark@mep-eng.com

DESCRIBE THE WORK YOU WILL BE DOING:

Mechanical + Electrical revisions
Add Fire/Smoke dampers

I declare under penalty that this application has been examined by me and that the statements made herein are made in good faith pursuant to City of Aurora tax and licensing regulations; and to the best of my knowledge and belief are true, correct and complete.

Print Name: Marcus Pickworth Signature: [signature] Date: 10/2/12

BOARD OF APPEALS - Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code. Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted there under have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

Sprinkler & Alarm permits must be brought in as separate submittals. "FDA" is NOT included in main permit.

◆◆◆◆ THIS SPACE FOR OFFICE USE ONLY ◆◆◆◆

Fee Determination Assessment: $_____

Change of occupancy/use: Y ☐ N ☐

REVIEWS		INSPECTIONS	
☐	Structural	☐	Structural
☒	Mechanical	☒	Mechanical
☐	Plumbing	☐	Plumbing
☒	Electrical	☒	Electrical
☐	Fire Life Safety	☐	Life Safety
☐	Bldg Life Safety	☐	Gate/Haz.

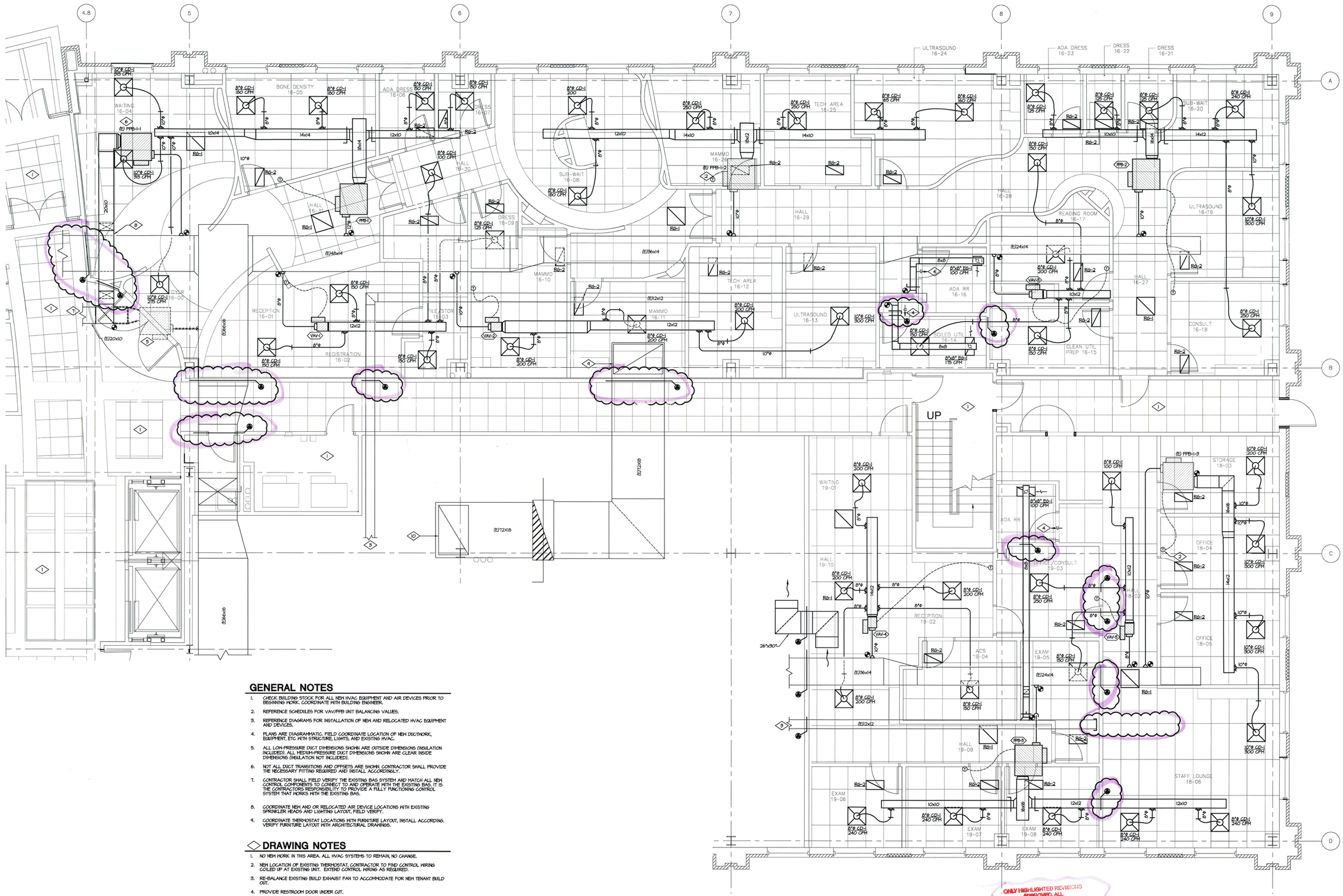
Intake Date: 10-2-12 PE Initial _____

Balance Due: _____

Pre approval Initial
Zoning ☐ _____
Water ☐ _____
Exterior changes? ☐ Yes ☐ No
Homeowner verified ☐ Yes
Permit Type: Limited
Mid roof / Ave Bldg Height:
Parent Permit RSN:
Plans Examiner: JIM
Subtype: Mechanical
RSN: 683793

Plans Picked up by:
Company name:
Phone number:

12-626266-



GENERAL NOTES

1. CHECK BUILDING STOCK FOR ALL NEW HVAC EQUIPMENT AND AIR DEVICES PRIOR TO BEGINNING WORK. COORDINATE WITH BUILDING ENGINEER.
2. REFERENCE SCHEDULES FOR VAV/FPB UNIT BALANCING VALUES.
3. REFERENCE DIAGRAMS FOR INSTALLATION OF NEW AND RELOCATED HVAC EQUIPMENT AND DEVICES.
4. PLANS ARE DIAGRAMMATIC. FIELD COORDINATE LOCATION OF NEW DUCTWORK, EQUIPMENT, ETC WITH STRUCTURE, LIGHTS, AND EXISTING HVAC.
5. ALL LOW-PRESSURE DUCT DIMENSIONS SHOWN ARE OUTSIDE DIMENSIONS (INSULATION INCLUDED). ALL MEDIUM-PRESSURE DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS (INSULATION NOT INCLUDED).
6. NOT ALL DUCT TRANSITIONS AND OFFSETS ARE SHOWN. CONTRACTOR SHALL PROVIDE THE NECESSARY FITTING REQUIRED AND INSTALL ACCORDINGLY.
7. CONTRACTOR SHALL FIELD VERIFY THE EXISTING BAS SYSTEM AND MATCH ALL NEW CONTROL COMPONENTS TO CONNECT TO AND OPERATE WITH THE EXISTING BAS. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE A FULLY FUNCTIONING CONTROL SYSTEM THAT WORKS WITH THE EXISTING BAS.
8. COORDINATE NEW AND OR RELOCATED AIR DEVICE LOCATIONS WITH EXISTING SPRINKLER HEADS AND LIGHTING LAYOUT, FIELD VERIFY.
9. COORDINATE THERMOSTAT LOCATIONS WITH FURNITURE LAYOUT, INSTALL ACCORDING. VERIFY FURNITURE LAYOUT WITH ARCHITECTURAL DRAWINGS.

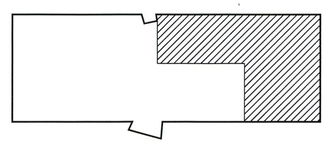
◇ DRAWING NOTES

1. NO NEW WORK IN THIS AREA. ALL HVAC SYSTEMS TO REMAIN, NO CHANGE.
2. NEW LOCATION OF EXISTING THERMOSTAT, CONTRACTOR TO FIND CONTROL WIRING COILED UP AT EXISTING UNIT. EXTEND CONTROL WIRING AS REQUIRED.
3. RE-BALANCE EXISTING BUILD EXHAUST FAN TO ACCOMMODATE FOR NEW TENANT BUILD OUT.
4. PROVIDE RESTROOM DOOR UNDER CUT.
5. REMOVE AND RELOCATED EXISTING FAN POWERED BOX I-1.
6. NEW LOCATION EXISTING FAN POWERED BOX I-1 TO THIS LOCATION. SUPPORT FROM STRUCTURE AND EXTEND BRANCH DUCTWORK AS SHOWN. RE-BALANCE BOX TO 1075 CFM
7. EXISTING DUCTWORK AND ASSOCIATED AIR DEVICES TO REMAIN. SERVING CORRIDOR FROM RELOCATED FAN POWERED BOX TO REMAIN.
8. ROUTE DUCTWORK UP IN JOIST SPACE, ABOVE EXISTING MEDIUM PRESSURE DUCT.
9. (E) 66x40 RETURN AIR OPENING ON TOP OF (E) DUCT WORK.
10. (E) T2x18 RETURN AIR OPENING ON THE TOP OF (E) DUCT WORK.

N **FIRST FLOOR MECHANICAL PLAN**
SCALE: 1/4" = 1'-0"

ONLY HIGHLIGHTED REVISIONS APPROVED. ALL PREVIOUS COMMENTS APPLY.

12-626266-
RSN 683793
John L
CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED JL
DATE 10/9/12



N **KEY PLAN**
SCALE: NONE

The Medical Center of Aurora
HealthONE

WOMEN'S HEALTH

MEDICAL CENTER OF AURORA

1444 S. POTOMAC ST
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

M.E.P. ENGINEERING
3565 S. Yosemite St. (W) 303.936.1633
Denver, CO 80237 (F) 303.934.3299
info@mep-eng.com www.mep-eng.com

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COLORADO REGISTERED TODD T. THOMPSON PROFESSIONAL ENGINEER 42671

MEP PROJECT NO.: 12137

DRAWN BY:	TDP
CHECKED BY:	MTM
SCALE:	AS SHOWN
DATE:	06/28/12
ISSUED FOR:	CONSTRUCTION
REVISIONS:	

FIRST FLOOR MECHANICAL PLAN

M3.0

ELECTRICAL GENERAL NOTES

1. PRIOR TO SUBMITTING BIDS, THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING ELECTRICAL EQUIPMENT CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. FIELD VERIFY QUANTITIES OF EXISTING LIGHT FIXTURES, ELECTRICAL DEVICES, COMMUNICATION DEVICES, FIRE ALARM DEVICES, AND ELECTRICAL EQUIPMENT. NOTIFY THE ARCHITECT AND ENGINEER OF ANY EXISTING CONDITIONS, WHICH MODIFY THE SCOPE OF WORK AS SHOWN ON THE CONSTRUCTION DOCUMENTS. SUBMISSION OF A BID PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR MOBILIZATION, LABOR, EQUIPMENT, AND/OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.

2. ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE WITH OWNER REPRESENTATIVES. ALL ELECTRICAL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM WITH LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, UNIFORM BUILDING CODE OR INTERNATIONAL BUILDING CODE, LOCAL BUILDING AND FIRE DEPARTMENT REQUIREMENTS. PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF OWNER REPRESENTATIVES.

3. ELECTRICAL CONTRACTOR SHALL MAINTAIN ON THE JOB AN UP TO DATE SET OF WORKING DRAWINGS, MARKED UP TO SHOW ELECTRICAL SYSTEMS AS INSTALLED. PROVIDE TENANT REPRESENTATIVES WITH ONE SET OF REPRODUCIBLES WITH "AS BUILT" PROJECT RECORD INFORMATION CLEARLY INDICATED. ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LOCAL FEES, PERMITS, AND SERVICES OF INSPECTION AUTHORITIES REQUIRED BY ELECTRICAL WORK FOR THIS ELECTRICAL CONSTRUCTION.

4. REFER TO ARCHITECTURAL AND MECHANICAL EQUIPMENT DRAWINGS FOR EXACT LOCATIONS OF ELECTRICAL DEVICES AND LIGHT FIXTURES. DO NOT SCALE FROM THE ELECTRICAL PLANS. ADDITIONAL ELECTRICAL REQUIREMENTS ON ARCHITECTURAL PLANS, KITCHEN EQUIPMENT PLANS, AND MECHANICAL PLANS SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTORS BID.

5. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL WORK. LOCATIONS ARE APPROXIMATE AND SHALL BE SUBJECT TO MINOR MODIFICATIONS AS DIRECTED BY THE GENERAL CONTRACTOR AND OWNER REPRESENTATIVES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT FITTING OF ALL MATERIALS, EQUIPMENT, ETC., IN THE BUILDING AND TENANT SPACE. ALL DIMENSIONS SHALL BE VERIFIED ON THE JOB. ELECTRICAL CONTRACTOR SHALL CUT, CHANNEL, CHASE, AND/OR DRILL FLOORS, WALLS, PARTITIONS, CEILINGS, OR OTHER SURFACES AS REQUIRED FOR INSTALLATION, SUPPORT, ANCHORAGE, ETC., OF WORK. PROVIDE X-RAY OF FLOOR PRIOR TO CORE DRILLS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUBSEQUENT PATCHING WORK.

6. ELECTRICAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY CHANGES REQUIRED BY THE BUILDING MANAGEMENT AND TENANT REPRESENTATIVES. DEMOLITION OR ABANDONING ANY ELECTRICAL AND COMMUNICATIONS CONDUIT, WIRING, CABLING, OR DEVICE MEANS TO REMOVE IN ITS ENTIRETY. REMOVE UNUSED CONDUITS FROM CEILING SPACES IN AREAS OF WORK. ABANDONED OUTLET JUNCTION BOXES ARE TO BE REMOVED AND COVERED WITH NEW GYPSUM BOARD. ABANDONED POKE THRU OUTLETS SHALL HAVE COVER PLATES AND BE FILLED WITH FIRE RATED FOAM SEALANT TO MAINTAIN FIRE RATING OF FLOOR. RETURN UNUSED ELECTRICAL EQUIPMENT AND LIGHT FIXTURES TO BUILDING MANAGEMENT FOR STORAGE AND/OR REMOVAL FROM SITE AS DIRECTED BY OWNERS.

7. ELECTRICAL CONTRACTOR SHALL RE-USE EXISTING BRANCH CIRCUIT CONDUIT AND WIRING WHERE POSSIBLE. RE-USE EXISTING PREFABRICATED LIGHTING SYSTEM CONDUIT AND WIRING WHERE POSSIBLE. RE-ROUTE AND EXTEND AS NECESSARY FOR THIS TENANT FINISH CONSTRUCTION. PROVIDE ADDITIONAL NEW CONDUIT, WIRING, COMPONENTS, AND CONNECTIONS AS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEMS, TYPICAL.

8. PROVIDE UPDATED, COMPLETE AND ACCURATE TYPED PANELBOARD CIRCUIT DIRECTORIES AT THE COMPLETION OF WORK. CLEAN EXPOSED PANELBOARD SURFACES AND CHECK TIGHTNESS OF ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AS REQUIRED AND PROVIDE FILLER PLATES FOR VACANT SPACES.

9. PROVIDE UPDATED LABELING OF ALL NEW AND RELOCATED ELECTRICAL EQUIPMENT IN SCOPE OF WORK INCLUDING, BUT NOT LIMITED TO, ENGINE GENERATOR SYSTEMS, TRANSFER SWITCHES, TRANSFORMERS, SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS, AND DISCONNECTS TO INDICATE THE AMPERE RATING, VOLTAGE RATING, PHASE, CONDUCTOR COLOR CODING WITHIN THE EQUIPMENT AND APPLICABLE AIC RATING.

10. WIRING DEVICES SHALL BE SPECIFICATION GRADE, 20 AMP FOR GENERAL APPLICATION, 20 AMP OR GREATER FOR DEDICATED CIRCUITS AND AS REQUIRED BY CIRCUIT LOAD. LEVITON #5362 RECEPTACLES, 5362-I6 (ORANGE) ISOLATED GROUND RECEPTACLES, and #1221 SWITCHES (OR EQUAL). COLOR TO MATCH EXISTING BUILDING STANDARD OR PROVIDE (WHITE) UNLESS OTHERWISE NOTED. PROVIDE MATCHING COLOR NYLON COVER PLATES FOR ALL OUTLETS. ELECTRICAL CONTRACTOR SHALL VERIFY ALL OUTLETS WITH ARCHITECTURAL PLANS AND TENANT BEFORE ORDERING AND PURCHASING OF MATERIALS, TYPICAL.

11. ALL 15 AMPERE AND 20 AMPERE, 125 VOLT AND 250 VOLT NON-LOCKING RECEPTACLES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE LISTED AS WEATHER-RESISTANT PER 2011 NEC, ARTICLE 406.9 (A) AND (B). ALL RECEPTACLES MOUNTED IN WET LOCATIONS AS REFERENCED ABOVE SHALL HAVE AN "IN-USE" WEATHERPROOF COVER.

12. ALL 125 VOLT, SINGLE PHASE, 15 AND 20 AMPERE RECEPTACLES INSTALLED IN OTHER THAN DWELLING UNITS SHALL HAVE GFCI PROTECTION FOR PERSONNEL IN THE FOLLOWING AREAS: BATHROOMS, KITCHENS (AREAS WITH A SINK AND PERMANENT FACILITIES FOR FOOD PREPARATION AND COOKING), ROOFTOPS, OUTDOORS AND WITHIN 6 FEET FROM THE OUTSIDE EDGE OF SINKS, PER 2011 NEC 210.8 (B).

13. ALL WALL MOUNTED OUTLETS SHALL BE OFFSET SO THEY ARE NOT BACK TO BACK FOR SOUND TRANSMISSION PURPOSES. A HORIZONTAL DISTANCE OF AT LEAST 24 INCHES SHALL SEPARATE OUTLET BOXES ON OPPOSITE SIDES OF WALLS AND PARTITIONS. GANG MOUNT ELECTRICAL AND COMMUNICATIONS OUTLETS ON WALLS AS CLOSE TOGETHER AS POSSIBLE, TYPICAL.

14. FIRE RESISTIVE WALLS AND OPENINGS MAY HAVE OPENINGS FOR STEEL ELECTRICAL OUTLET BOXES NOT EXCEEDING 16 SQUARE INCHES IN AREA, PROVIDED THE AGGREGATE AREA OF SUCH OPENINGS IS NOT MORE THAN 100 SQUARE INCHES FOR ANY 100 SQUARE FEET OF WALL, TYPICAL.

15. ALL CONDUCTORS SHALL BE THWN/THHN INSULATED COPPER UNLESS OTHERWISE NOTED ON THE DRAWINGS. #12 AWG FOR 120 VOLT, 20 AMPERE CIRCUITS, 75 FEET OR LESS; #12 AWG FOR 277 VOLT, 20 AMPERE CIRCUITS, 150 FEET OR LESS TO FIRST DEVICE. TYPE THWN OR THHN INSULATION. PROVIDE WIRE COLOR CODING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. ALL WIRING SHALL BE RUN CONCEALED AND IN EMT CONDUIT. ALL HOMERUNS SHALL BE IN EMT CONDUIT. ELECTRICAL CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM DESIGN ENGINEER AND PROPERTY MANAGEMENT FOR USE OF "AC" AND "ACT" TYPE CABLING. "AC" AND "ACT" TYPE CABLE SHALL BE PERMITTED FOR BRANCH CIRCUIT WIRING IN APPROVED LOCATIONS ONLY AND INSTALLED PER NATIONAL ELECTRICAL CODE AND LOCAL BUILDING DEPARTMENT REQUIREMENTS. USE APPROVED TYPE COUPLINGS AND CONNECTORS. PROVIDE CONDUIT SUPPORTS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AS A MINIMUM. ALL EMPTY CONDUITS INDICATED ON THE DRAWINGS SHALL BE SUPPLIED WITH NYLON PULL LINES.

16. ELECTRICAL CONTRACTOR SHALL USE #10 AWG CU WIRE WHEN LENGTH OF CONDUCTOR EXCEEDS 75 FEET FOR 120 VOLT, 20 AMP CIRCUITS AND 150 FEET FOR 277 VOLT, 20 AMP CIRCUITS. SIZE CONDUCTORS FOR MINIMUM VOLTAGE DROP ALLOWED PER THE NATIONAL ELECTRICAL CODE.

17. ELECTRICAL CONTRACTOR SHALL USE #8 AWG CU WIRE WHEN LENGTH OF CONDUCTOR EXCEEDS 150 FEET FOR 120 VOLT, 20 AMP CIRCUITS AND 300 FEET FOR 277 VOLT, 20 AMP CIRCUITS. SIZE CONDUCTORS FOR MINIMUM VOLTAGE DROP ALLOWED PER THE NATIONAL ELECTRICAL CODE.

18. ALL JUNCTION BOX COVERS SHALL BE INDELIBLY LABELED WITH PANEL DESIGNATION AND BRANCH CIRCUIT NUMBER OF EACH WIRE WITHIN THE JUNCTION BOX. ALL HOME RUNS SHALL BE IN EMT CONDUIT, TYPICAL.

19. NEUTRALS, RACEWAYS, AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN FULL ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. PROVIDE HARD WIRED GROUND CONNECTIONS TO ALL DEVICES AND SEPARATE INSULATED GROUND WIRE CONTINUOUS IN EACH CIRCUIT (#12 AWG CU MINIMUM "GREEN" TRACER GROUND).

20. ELECTRICAL CONTRACTOR SHALL INCREASE SIZE OF SHARED NEUTRAL CONDUCTOR WITHIN FURNITURE SYSTEMS TO A #10 AWG CU CONDUCTOR. ELECTRICAL CONTRACTOR TO CONSIDER THE NEUTRAL CONDUCTOR AS A CURRENT CARRYING CONDUCTOR WHEN FEEDING ELECTRONIC LOADS.

21. CIRCUITS FOR COMPUTERS, COPIERS, AND PRINTERS, WHICH ARE SEMI-DEDICATED, DEDICATED, OR ISOLATED, SHALL HAVE A SEPARATE NEUTRAL AND GROUND CONDUCTORS RUN FROM THE BRANCH CIRCUIT PANEL BOARD.

22. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY FROM STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF LIGHT FIXTURES AND ELECTRICAL DEVICES.

23. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF LIGHTING FIXTURES IN MECHANICAL ROOMS/SPACES WITH MECHANICAL DUCT WORK INSTALLER PRIOR TO ROUGH IN. LOCATE BELOW DUCT WORK (8'-0" A.F.F. MIN) CENTERED IN ROOM AS MUCH AS POSSIBLE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS AND REQUIREMENTS WITH MECHANICAL PLANS, MECHANICAL CONTRACTOR, AND ACTUAL MECHANICAL EQUIPMENT SUPPLIED. INCLUDE ALL REQUIRED OUTLETS, HEAVY DUTY DISCONNECT SWITCHES, FUSES, CONTROLS, CONTROL WIRING AND ALL CONNECTIONS IN THE ELECTRICAL BID.

24. VERIFY ALL SPECIFIC KITCHEN EQUIPMENT REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH IN. COORDINATION SHALL INCLUDE MOUNTING HEIGHTS, CONNECTION TYPE AND POWER REQUIREMENTS. ALL CONNECTIONS FOR KITCHEN EQUIPMENT SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S AND SUPPLIER'S RECOMMENDATIONS.

25. VERIFY ALL SPECIFIC COMPUTER AND COMMUNICATIONS EQUIPMENT REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH IN. COORDINATION SHALL INCLUDE MOUNTING HEIGHTS, CONNECTION TYPE AND POWER REQUIREMENTS. ALL CONNECTIONS FOR COMPUTER AND COMMUNICATIONS EQUIPMENT SHALL BE IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S AND SUPPLIER'S RECOMMENDATIONS.

26. ALL NEW LIGHT SWITCHES, RECEPTACLE OUTLETS, TELEPHONE OUTLETS, FIRE ALARM DEVICES, AND COMMUNICATIONS/DATA OUTLETS SHALL MEET THE REQUIREMENTS FOR AMERICANS WITH DISABILITIES (A.D.A.) AND ANSI A117.1 REQUIREMENTS FOR MOUNTING HEIGHTS AND ORIENTATIONS, TYPICAL UNLESS OTHERWISE NOTED. RECEPTACLES SHALL BE A MINIMUM OF 15" A.F.F. AND SWITCHES A MAXIMUM OF 48" A.F.F. TO CENTERLINE, TYPICAL UNLESS OTHERWISE NOTED.

27. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL ELECTRICAL DEVICES LOCATED WITHIN, ABOVE, OR NEAR MILLWORK WITH ARCHITECTURAL DRAWINGS, APPROVED "SHOP DRAWINGS", AND MILLWORK CONTRACTOR. MAINTAIN CONSISTENT MOUNTING PRACTICES FOR A UNIFORM APPEARANCE. VERIFY ALL OUTLET REQUIREMENTS PRIOR TO ROUGH IN.

28. PROVIDE 4" SQUARE (DOUBLE GANG) JUNCTION BOX WITH SINGLE GANG PLASTER RING FOR ALL NEW COMBINATION TELEPHONE/DATA OUTLETS. STUB 3/4" EMPTY CONDUIT UP TO 6" ABOVE ACCESSIBLE CEILING WITH PULL WIRE IN CONDUIT AND PLASTIC BUSHINGS ON CONDUIT ENDS. ALL COMMUNICATION DEVICES AND WIRING FOR THE TENANT'S COMMUNICATION SYSTEM SHALL BE INSTALLED BY THE TENANT'S VENDOR UNDER SEPARATE CONTRACT. COORDINATE EXACT REQUIREMENTS AND OUTLET LOCATIONS WITH ARCHITECTURAL PLANS PRIOR TO ROUGH IN, TYPICAL.

29. ELECTRICAL CONTRACTOR SHALL FULLY FIELD COORDINATE COMMUNICATIONS SYSTEM INSTALLATION (DEVICES AND CABLING) WITH TENANT REPRESENTATIVES PRIOR TO ROUGH-IN AND PURCHASING OF MATERIALS, TYPICAL.

30. FIRE ALARM DEVICE LOCATIONS ON BY OTHERS.

32. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FULLY ENGINEERED FIRE ALARM SHOP DRAWINGS FOR REVIEW BY THE LOCAL BUILDING AND FIRE DEPARTMENT. THE FIRE ALARM SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE PROJECT'S STATE.

33. ELECTRICAL CONTRACTOR SHALL PROVIDE PRODUCT LITERATURE INFORMATION ON SITE FOR FIELD INSPECTOR REGARDING FIRE RATING OF FLOOR BOXES AND POKE THRU DEVICES.

34. ALL FLOOR AND WALL PENETRATIONS WHERE ELECTRICAL DEVICES AND RACEWAY HAVE BEEN REMOVED MUST BE REPAIRED AND SEALED TO MAINTAIN THE REQUIRED FIRE RATING. ALL LUMINAIRES PENETRATING A ONE HOUR FIRE RESISTIVE ENCLOSURE SHALL BE PROPERLY TENTED TO MAINTAIN FIRE RATING OF THE ENCLOSURE. ALL CONDUITS PENETRATING A ONE HOUR FIRE RATED WALL OR CEILING SHALL BE FIRE STOPPED WITH A U.L. LISTED FIRE STOPPING COMPOUND SEALANT.

35. MINIMUM WORKING CLEARANCES PER THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE SHALL BE PROVIDED AROUND AND IN FRONT OF ALL ELECTRICAL EQUIPMENT.

36. ALL CIRCUIT BREAKER LUGS SHALL BE RATED FOR A MINIMUM OF 75 DEGREE CELSIUS.

37. MAINTAIN LIGHTING CIRCUIT AND SWITCHING CONTROL CONTINUITY IN ADJACENT VACANT AND NON-VACANT SUITES TO PROJECT.

38. MAINTAIN RECEPTACLE CIRCUIT CONTINUITY THROUGH WALLS WHICH ARE TO BE DEMOLISHED AND THROUGH RECEPTACLES WHICH ARE TO BE REMOVED.

39. COORDINATE CONTROL OF LUMINAIRES IN BUILDING COMMON CORRIDOR AREAS WITH BUILDING MANAGEMENT.

40. ALL NEW AND RELOCATED FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OR EXTERNAL TO EACH LUMINAIRE PER 2011 NEC, ARTICLE 410.130(G)(1).

41. ALL NEW AND MODIFIED ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS, THAT ARE IN OTHER THAN DWELLING OCCUPANCIES, AND ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT PER NEC 2011, ARTICLE 110.16.

42. ALL BRANCH CIRCUITS SERVING PATIENT CARE AREAS SHALL BE PROVIDED WITH AN EFFECTIVE GROUND-FAULT CURRENT PATH BY INSTALLATION IN A METAL RACEWAY SYSTEM, OR A CABLE HAVING A METALLIC ARMOR OR SHEATH ASSEMBLY. THE METAL RACEWAY SYSTEM, OR METALLIC CABLE ARMOR, OR SHEATH ASSEMBLY SHALL ITSELF QUALIFY AS AN EQUIPMENT GROUNDING CONDUCTOR.

43. PATIENT CARE AREAS: THE GROUNDING TERMINALS OF ALL RECEPTACLES AND ALL NON-CURRENT-CARRYING CONDUCTIVE SURFACES OF FIXED ELECTRICAL EQUIPMENT LIKELY TO BECOME ENERGIZED THAT ARE SUBJECT TO PERSONAL CONTACT, OPERATING AT OVER 100 VOLTS, SHALL BE CONNECTED TO AN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH AND INSTALLED IN METAL RACEWAYS OR AS A PART OF LISTED CABLES HAVING A METALLIC ARMOR OR SHEATH ASSEMBLY WITH THE BRANCH-CIRCUIT CONDUCTORS SUPPLYING THESE RECEPTACLES OR FIXED EQUIPMENT.

ELECTRICAL SYMBOLS LEGEND

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
HOMERUN, SOLID 120/208 V, OPEN 277/480 V		RECESSED FLUORESCENT FIXTURE	
CONDUIT RISER, TURNED UP, TURNED DOWN		SURFACE/PENDANT FLUORESCENT FIXTURE	
JUNCTION BOX, CEILING OR WALL	J	UNDERCABINET FIXTURE	
JUNCTION BOX, WITH COVER PLATE	C	DOWNLIGHT/PENDANT FIXTURE	
SIMPLEX RECEPTACLE		WALL MOUNTED FIXTURE	
DUPLEX RECEPTACLE		WALLWASH FIXTURE	
DOUBLE DUPLEX RECEPTACLE		EXIT SIGN WITH "FROG EYE"	
DUPLEX RECEPTACLE ON DEDICATED CIRCUIT		TRACK LIGHTING	
SPECIAL RECEPTACLE - AS NOTED ON PLANS		EXIT SIGN	
TELEPHONE OUTLET, SINGLE GANG BOX, 3/4" CONDUIT STUB TO ACCESSIBLE CEILING.		EMERGENCY BATTERY PACK, "FROG EYE"	
DATA OUTLET, SINGLE GANG BOX, 3/4" CONDUIT STUB TO ACCESSIBLE CEILING.		POLE MOUNTED OUTDOOR FIXTURE	
COMBINATION TELE/DATA OUTLET, SINGLE GANG BOX, 3/4" CONDUIT, STUB TO ACCESSIBLE CEILING.		SWITCH, SINGLE POLE	S
COMBINATION POWER/COMMUNICATIONS FLOOR BOX		TWO POLE SWITCH	S_2
POKE THRU DEVICE		THREE WAY SWITCH	S_3
COMBINATION TELEPHONE/DATA FLOOR BOX		FOUR WAY SWITCH	S_4
TELEPHONE FLOOR BOX		KEYED SWITCH	S_K
WATER HEATER		DIMMER SWITCH	S_D
PANELBOARD		THERMAL OVERLOAD SWITCH	S_{TO}
SWITCHBOARD		SWITCH WITH PILOT LIGHT	S_P
DISCONNECT SWITCH, NON-FUSED		FIRE HORN WITH STROBE LIGHT	
DISCONNECT SWITCH, FUSED		MANUAL PULL STATION/PLOW AND TAMPER	
TRANSFORMER		SMOKE DETECTOR	
MOTOR STARTER		HEAT DETECTOR	
CARD READER		CEILING MOUNTED FIRE ALARM SPEAKER	
MOTOR		CEILING MOUNTED FIRE ALARM SPEAKER/STROBE	
PULLBOX		CEILING/WALL MOUNTED FIRE ALARM STROBE	
TIME CLOCK		REMOTE LAMP	
METER		DUCT DETECTOR	
DISCONNECT SWITCH & FUSE (DIAGRAMMATIC)		FIRE/SMOKE DAMPER	
CURRENT TRANSFORMER, CT'S (DIAGRAMMATIC)		WALL MOUNTED OCCUPANCY SENSOR	
CIRCUIT BREAKER (DIAGRAMMATIC)		CEILING MOUNTED OCCUPANCY SENSOR	
PHOTOCELL		PAGING OR MUSIC SPEAKER	
TELEVISION CABLE OUTLET			

ABBREVIATIONS:

AC	ABOVE COUNTER	GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER	T/D	TELE/DATA JUNCTION BOX
AFF	ABOVE FINISHED FLOOR	NL	NIGHT LIGHT	TR	TAMPER RESISTANT
EWH	ELECTRIC WATER HEATER	RL	RELOCATED DEVICE OR EQUIPMENT	WP	WEATHER PROOF
GND	GROUND	SM	SURFACE MOUNT		

Isc CALCULATION - 3 PHASE

Point #1 - At The Utility Transformer

Isc = 36,500

Point #2 - At the Main Board "MDP"

f = [1.732 X length X Isc(prev)] / [# runs X wire factor X voltage]
f = 1.732 X 100 X 36,500 / 6 X 22,185 X 480
f = 0.049

M = 1/(1+f)
M = 0.910

Isc = Isc(prev) x M
Isc = 33,214

Point #3 - At the 75 kVA Transformer

f = [1.732 X length X Isc(prev)] / [# runs X wire factor X voltage]
f = 1.732 X 10 X 33,214 / 1 X 7,242 X 480
f = 0.164

M = 1/(1+f)
M = 0.859

Isc = Isc(prev) x M
Isc = 28,525

Point #4 - Through the 75 kVATransformer, 3-phase

f = Isc(pri) X V(pri) X 1.73 X (%Z) / 100,000 X kVA trans
f = 28,525 X 480 X 1.73 X 4.5 / 100,000 X 75
f = 14.213

M = 1/(1+f)
M = 0.066

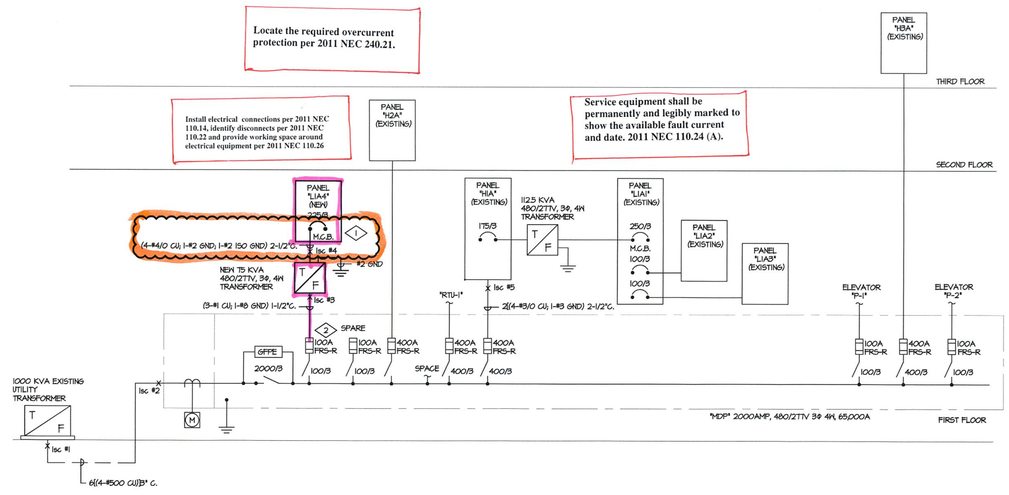
Isc = V(pri) / V(sec) X M X Isc(pri)
Isc = 4,921

Point #5 - At the "H1A" Panel

f = [1.732 X length X Isc(prev)] / [# runs X wire factor X voltage]
f = 1.732 X 10 X 33,214 / 2 X 12,848 X 480
f = 0.047

M = 1/(1+f)
M = 0.955

Isc = Isc(prev) x M
Isc = 31,733



ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE
NOTES:
NEW AND RELOCATED ITEMS SHOWN AS BOLD ———
EXISTING ITEMS SHOWN AS LIGHT ———
REMOVED ITEMS SHOWN AS DASHED AND LIGHT — — —

DRAWING NOTES

1. NEW ELECTRICAL PANELBOARD. PROVIDE ISOLATED GROUND BAR. SEE ELECTRICAL SCHEDULES FOR MORE INFORMATION.
2. ELECTRICAL CONTRACTOR TO VERIFY EXISTING FUSE SIZES. PROVIDE NEW AS REQUIRED.

2,000A SERVICE LOAD CALCULATION

EXISTING PEAK DEMAND FROM XCEL: (12/0811)	374.0 AMPS
	X 1.25
PEAK DEMAND x 125%:	467.8 AMPS
NEW LOAD ADDED THIS CONTRACT:	165.0 AMPS
TOTAL LOAD ON 2,000A SERVICE:	632.8 AMPS

Only work covered in Permit

AURORA BUILDING INSPECTION
ELECTRICAL SECTION
APPROVED
SUBJECT TO COMMENTS AS NOTED AND FIELD INSPECTIONS

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED
DATE 10/10/12
NEC 2011

The Medical Center of Aurora
Health ONE

WOMEN'S HEALTH

MEDICAL CENTER OF AURORA
1444 S. POTOMAC ST
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

M.E.P. ENGINEERING
3565 S. Yosemite St.
Denver, CO 80237
info@mep-eng.com
(W) 303.936.1633
(F) 303.934.3299
www.mep-eng.com

COLORADO REGISTERED 16134 PROFESSIONAL ENGINEER

MEP PROJECT NO.: 12137

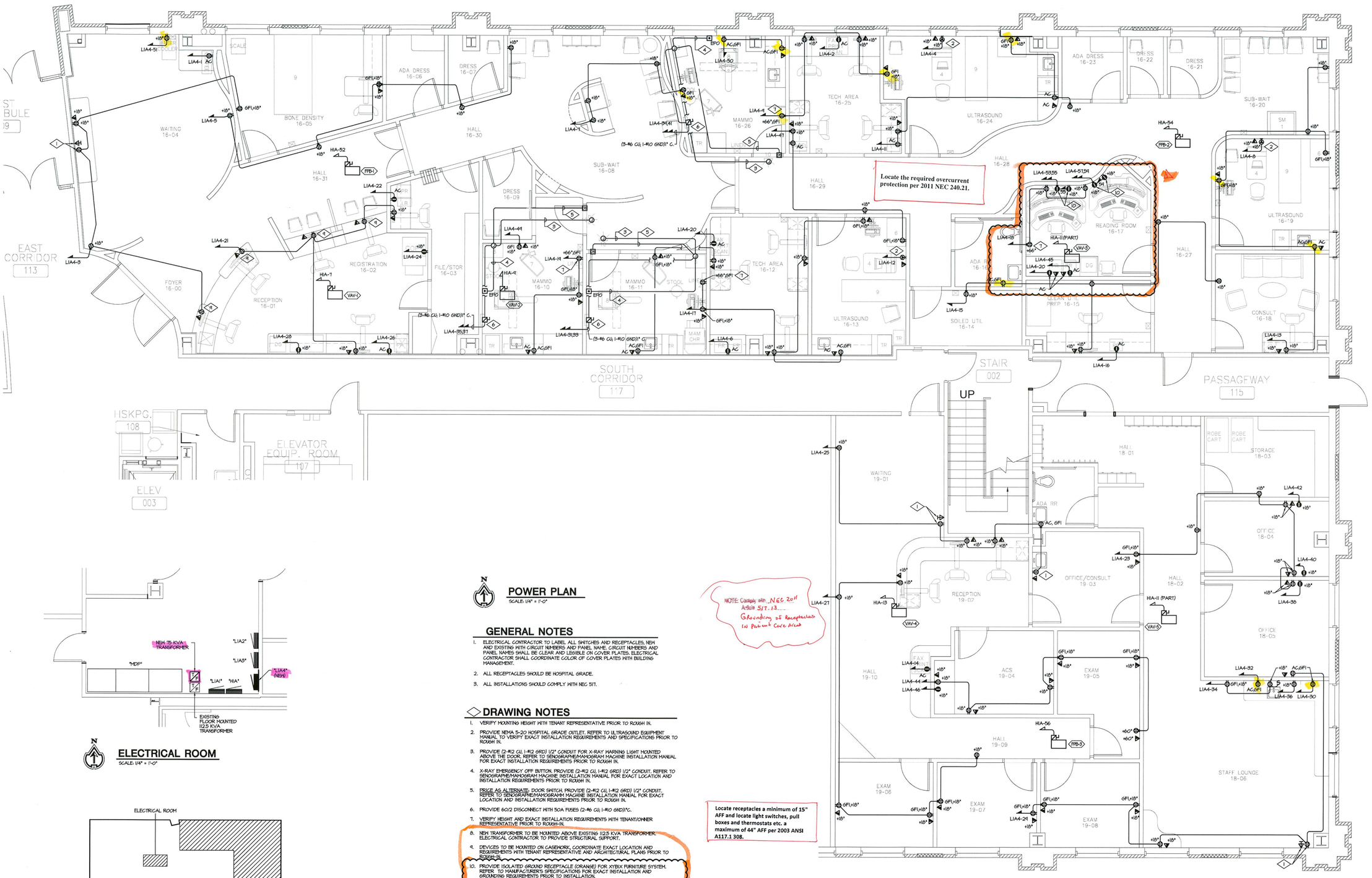
DRAWN BY: GVP
CHECKED BY: DGM
SCALE: AS SHOWN
DATE: 06/28/12
ISSUED FOR: CONSTRUCTION

REVISIONS:
1 10/10/12

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GENERAL NOTES AND LEGEND

E1.0



ELECTRICAL ROOM
SCALE: 1/4" = 1'-0"

KEY PLAN
SCALE: NONE

POWER PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. ELECTRICAL CONTRACTOR TO LABEL ALL SWITCHES AND RECEPTACLES, NEW AND EXISTING WITH CIRCUIT NUMBERS AND PANEL NAME. CIRCUIT NUMBERS AND PANEL NAMES SHALL BE CLEAR AND LEGIBLE ON COVER PLATES. ELECTRICAL CONTRACTOR SHALL COORDINATE COLOR OF COVER PLATES WITH BUILDING MANAGEMENT.
2. ALL RECEPTACLES SHOULD BE HOSPITAL GRADE.
3. ALL INSTALLATIONS SHOULD COMPLY WITH NEC 517.

DRAWING NOTES

1. VERIFY MOUNTING HEIGHT WITH TENANT REPRESENTATIVE PRIOR TO ROUGH IN.
2. PROVIDE NEMA 5-20 HOSPITAL GRADE OUTLET. REFER TO ULTRASOUND EQUIPMENT MANUAL TO VERIFY EXACT INSTALLATION REQUIREMENTS AND SPECIFICATIONS PRIOR TO ROUGH IN.
3. PROVIDE (2-#12 CU, 1-#12 GRD) 1/2" CONDUIT FOR X-RAY WARNING LIGHT MOUNTED ABOVE THE DOOR. REFER TO SENOGRAPHE/MAMOGRAM MACHINE INSTALLATION MANUAL FOR EXACT INSTALLATION REQUIREMENTS PRIOR TO ROUGH IN.
4. X-RAY EMERGENCY OFF BUTTON. PROVIDE (2-#12 CU, 1-#12 GRD) 1/2" CONDUIT. REFER TO SENOGRAPHE/MAMOGRAM MACHINE INSTALLATION MANUAL FOR EXACT LOCATION AND INSTALLATION REQUIREMENTS PRIOR TO ROUGH IN.
5. PRICE AS ALTERNATE: DOOR SWITCH. PROVIDE (2-#12 CU, 1-#12 GRD) 1/2" CONDUIT. REFER TO SENOGRAPHE/MAMOGRAMM MACHINE INSTALLATION MANUAL FOR EXACT LOCATION AND INSTALLATION REQUIREMENTS PRIOR TO ROUGH IN.
6. PROVIDE 60/2 DISCONNECT WITH 50A FUSES (2-#6 CU, 1-#10 GND)I"C.
7. VERIFY HEIGHT AND EXACT INSTALLATION REQUIREMENTS WITH TENANT/OWNER REPRESENTATIVE PRIOR TO ROUGH-IN.
8. NEW TRANSFORMER TO BE MOUNTED ABOVE EXISTING 112.5 KVA TRANSFORMER. ELECTRICAL CONTRACTOR TO PROVIDE STRUCTURAL SUPPORT.
9. DEVICES TO BE MOUNTED ON CASEWORK. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH TENANT REPRESENTATIVE AND ARCHITECTURAL PLANS PRIOR TO ROUGH IN.
10. PROVIDE ISOLATED GROUND RECEPTACLE (ORANGE) FOR XTBIX FURNITURE SYSTEM. REFER TO MANUFACTURER'S SPECIFICATIONS FOR EXACT INSTALLATION AND GROUNDING REQUIREMENTS PRIOR TO INSTALLATION.

NOTE: Comply with NEC 2011 Article 517.13.... Grounding of Receptacles in Patient Care Area

Locate receptacles a minimum of 15" AFF and locate light switches, pull boxes and thermostats etc. a maximum of 44" AFF per 2003 ANSI A117.1 308.

Install electrical connections per 2011 NEC 110.14, identify disconnects per 2011 NEC 110.22 and provide working space around electrical equipment per 2011 NEC 110.26

Only Work covered under this Permit

AURORA BUILDING INSPECTION
ELECTRICAL SECTION
APPROVED
SUBJECT TO COMMENTS AS NOTED AND FIELD INSPECTIONS

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED M
DATE 10/10/12
NEC 2011

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TomThompsonArchitect@gmail.com

M.E.P. ENGINEERING

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COLORADO REGISTERED PROFESSIONAL ENGINEER 16134

MEP PROJECT NO.: 12137

DRAWN BY:	GVP
CHECKED BY:	DGM
SCALE:	AS SHOWN
DATE:	06/28/12
ISSUED FOR:	CONSTRUCTION

REVISIONS:
1 10/10/12

POWER PLAN

E2.0

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	MOUNTING	LAMPS
A	PORTFOLIO	LD40ED010 ERM4400 4LMO LI	RECESSED 4" APERTURE LENS DOWNLIGHT LUMINAIRE UTILIZING AN LED ARRAY	RECESSED MOUNTED	INCLUDED 14W, 4000K 80 CRI
AE		LD40ED010 EM ERM4840 4LMO LI	EMERGENCY FIXTURE		
B	SHAPER LIGHTING	340-4-DL LED840/II4-2TTV SGSF-ERM GYF-GTY**	4" CYLINDRICAL LED GLASS RECESSED LUMINAIRE	RECESSED MOUNTED	INCLUDED 14W, 4000K 85 CRI
C	GORELITE	Z3-NN-I-L40-IC-UNV-24-TI-H6	LINEAR 2'X4' LED FIXTURE WITH LOW PROFILE HOUSING AND NANO PRISM LENS	RECESSED MOUNTED	INCLUDED 79W, 4000K 85 CRI
CE		Z3-NN-I-L40-IB-UNV-24-TI-H6	WITH BATTERY PACK		
D	GORELITE	Z3-NN-I-L40-IC-UNV-22-TI-H6	LINEAR 2'X2' LED FIXTURE WITH LOW PROFILE HOUSING AND NANO PRISM LENS	RECESSED MOUNTED	INCLUDED 34W, 4000K 85 CRI
DD		Z3-NN-I-L40-ID-UNV-22-TI-H6	WITH 0-10V DIMMING BALLAST		
DE		Z3-NN-I-L40-IE-UNV-22-TI-H6	EMERGENCY FIXTURE		
F	GORELITE	EB-ML-2TB-IC-UNV-22-TI	2'X2' LINEAR FLUORESCENT FIXTURE WITH LOW PROFILE HOUSING AND FROSTED PRISMATIC LENS ELECTRONIC BALLAST	RECESSED MOUNTED	(2) 17WTB 3000K 85 CRI
G	NEO-RAY	S22DR-I-L40-ET6-4-2TTV-ED-542HT	SLENDER 3"X4' LED FIXTURE	RECESSED MOUNTED	INCLUDED 33W, 4000K 85 CRI
GD		S22DR-I-L40-ET6-4-2TTV-DD-542HT	WITH 0-10V DIMMING BALLAST		
GE		S22DR-I-L40-ET6-4-2TTV-ED-542HT	WITH EM P/ACKS		
J	TECHLIGHTING	700 TD LI26P G 5 GF2TI*	LIZA GRANDE PENDANT ELECTRONIC BALLAST VERIFY MOUNTING REQUIREMENTS PRIOR TO ORDER	PENDANT	(1) 26W TRT 3000K 85 CRI
H	TECHLIGHTING	700BCLLIN24 5 GF2TI**	LUNA BATH LINEAR FLOURESCENT WALL MOUNTED FIXTURE	WALL MOUNT	(2) 14W T5 3000K 85 CRI
K ***	SHAPER LIGHTING	613RD-8-HDW-LED/M2-120V-SC-CR8	8" LED RECESSED INTERIOR WALL LUMINAIRE	WALL MOUNT	INCLUDED 12W, 3000K 85 CRI
L	TECHLIGHTING	700TDSRN5-H-5-GF	CURVED GLASS SHADECOMPACT FLUORESCENT LUMINAIRE	WALL MOUNT	INCLUDED (1) 13W GX24 3000K
N	OPTOLUM	TL3-60-40-U-C**	9" LED COMPACT RECESSED DOWNLIGHT PROVIDE 96W DIMMABLE REMOTE POWER SUPPLY PS96-277; VERIFY NUMBER OF LEADS IN THE FIELD)	RECESSED MOUNTED	INCLUDED 6W, 4000K 85 CRI
NI	OPTOLUM	TL3-60-40-U-C**	9" LED COMPACT RECESSED DOWNLIGHT PROVIDE 60W REMOTE POWER SUPPLY PS60-240; VERIFY NUMBER OF LEADS IN THE FIELD CONTRACTOR SHALL PROVIDE THE APPROPRIATE CABLE LENGHTS BETWEEN FIXTURES		
M	TECHLIGHTING	700UCF-13-8-3-IH-LED	LED UNDERCABINET SYSTEM WITH INTERGRATED DRIVER AND DIMMING PROVIDE JUMPER CONNECTORS	UNDER COUNTER	INCLUDED 8.5W, 2700K 85 CRI
X	SURE-LITES	EU-R-706	EDGE-LIT EXIT SIGN, GREEN LETTERS	SURFACE MOUNTED	INCLUDED

* VERIFY EXACT COLOR, FINISH OPTIONS AND INSTALLATION REQUIREMENTS WITH BUILDING MANAGEMENT AND TENANT REPRESENTATIVE.
** VERIFY EXACT COLOR AND FINISH OPTION WITH BUILDING MANAGEMENT AND TENANT REPRESENTATIVE.
*** VERIFY EXACT SHAPE AND LAMP OPTION WITH BUILDING MANAGEMENT AND TENANT REPRESENTATIVE.
NOTE: ALL FIXTYNE TYPES ARE SUBJECT TO THE FINAL APROVAL OF BUILDING MANAGEMENT/TENANT REPRESENTATIVE.

PANEL "HIA" (EXISTING) — VOLTAGE 277 / 480 V — 3 ϕ — 4 W
FLUSH — MAIN — MLO X
SURFACE X — BUS 400A — FEED THRU — A.I.C. 35,000

TYPE	DESCRIPTION	BKR	CIR	LOAD (VA/ϕ) A ϕ	B ϕ	C ϕ	CIR	BKR	DESCRIPTION	TYPE
	SPACE			0 0					SPACE	
LR	SUITE 100 LIGHTING	20	1		1800 1000		2	20	CORR SHELL	L
L	EXISTING LOAD	20	3			1500 1000	4	20	EXIT SIGNCES	L
L	SUITE 100 LIGHTING	20	5	1500 1500			6	20	PARKING LTG	L
* M	VAV-1	30	7		6500 1500		8	20	PARKING LTG	L
* M	VAV-2	15	9			6500 1500	10	20	PARKING LTG	L
** M	VAV-3, VAV-5	20	11	5500 1500			12	20	LANDSCAPE LTG	L
** M	VAV-4	20	13		4000 500		14	20	CONTACTOR	G
* L	LTG HOMES HEALTH	20	15			2882 1000	16	20	CORR LIGHTING	L
* L	LTG HOMES HEALTH	20	17	3554 1000			18	20	LIGHTING #110	L
L	EXISTING LOAD	30	19		1500 1000		20	20	LIGHTING #110	L
G	SUITE 100 FTU	30	21			1000 1000	22	20	LIGHTING #110	L
G	SUITE 100 FTU	20	23	1000 1000			24	20	EXISTING LOAD	G
G	SUITE 100 FTU	20	25		1000 1000		26	20	EXISTING LOAD	G
M	BOOSTER PUMPS	20 / 3	27			1500 1000	28	20	EXISTING LOAD	G
M	-	/ 3	29	1500 1000			30	20	EXISTING LOAD	G
M	-	/ 3	31		1500 1000		32	20	EXISTING LOAD	G
M	FTU #3	60	33			1000 1000	34	60	FTU #6	M
M	-		35	1000 1000			36		-	M
M	-	/ 3	37		1000 1000		38	/ 3	-	M
M	FTU #1	60	39			1000 1000	40	60	FTU #4	M
M	-	/ 3	41	1000 1000			42	/ 3	-	M
M	-	/ 3	43		1000 1000		44	/ 3	-	M
M	FTU #2	60	45			1000 1000	46	60	FTU #1	M
M	-	/ 3	47	1000 1000			48	/ 3	-	M
M	-	/ 3	49		1000 1000		50	/ 3	-	M
M	FTU #5	60	51			1000 1080	52	50	FPB-1	M **
M	-	/ 3	53	1000 1380			54	40	FPB-2	M **
M	-	/ 3	55		1000 1360		56	40	FPB-3	M **
	NOT USEABLE					0 17640	175	/ 3	MAIN BREAKER	LRM65
	NOT USEABLE			0 20620				/ 3	PANEL "LIA"	LR65
	NOT USEABLE				0 20480			/ 3		LR965
				48054	49140	45402				

LOAD TYPE	CONNECTED KVA A ϕ	B ϕ	C ϕ	TOTAL ALL #'S	FACTOR	DEMAND KVA A ϕ	B ϕ	C ϕ	TOTAL ALL #'S
LIGHTING/CONTINUOUS	10.4	7.5	4.2	21.0	125%	12.9	9.4	11.5	33.8
RECEPTACLE (10KVA OR LESS)	3.3	3.3	3.3	10.0	100%	3.3	3.3	3.3	10.0
RECEPTACLE (OVER 10KVA)	2.8	3.4	2.6	8.8	50%	1.4	1.7	1.3	4.4
HVAC/MOTOR	56.0	61.5	57.5	174.9	100%	56.0	61.5	57.5	174.9
MOTOR(LARGEST)	7.4	7.4	10.4	25.2	125%	9.3	9.3	13.0	31.5
KITCHEN EQUIPMENT	3.9	2.5	1.8	8.2	100%	3.9	2.5	1.8	8.2
MISCELLANEOUS	12.3	13.5	11.1	36.9	100%	12.3	13.5	11.1	36.9
TOTAL KVA	96.1	99.1	85.4	291.1	TOTAL KVA	99.1	101.1	99.5	299.7
					TOTAL AMPERES	357.8	365.1	354.2	365.1

LEGEND: L = LIGHTING; R = RECEPTACLE; M = HVAC / MOTOR; K = KITCHEN; G = MISCELLANEOUS

* CIRCUIT REVISED THIS CONTRACT.
** PROVIDE NEW CIRCUIT BREAKER TO MATCH EXISTING MANUFACTURER AND AIC RATING. Based on available fault.

PROVIDE ISOLATED GROUND BAR.

PANEL "LIA4" (NEW) — VOLTAGE 120 / 208 V — 3 ϕ — 4 W
FLUSH — MAIN 225/3 — MLO
SURFACE X — BUS 225A — FEED THRU — A.I.C. 10,000

TYPE	DESCRIPTION	BKR	CIR	LOAD (VA/ϕ) A ϕ	B ϕ	C ϕ	CIR	BKR	DESCRIPTION	TYPE
K	COFFEE	20	1	1000 900			2	20	PRINTER	G
R	GENERAL RCPT	20	3		900 1900		4	20	ULTRASOUND	G
R	GENERAL RCPT	20	5			1080 900	6	20	PRINTER	G
R	GENERAL RCPT	20	7	720 1900			8	20	ULTRASOUND	G
R	GENERAL RCPT	20	9		720 1080		10	20	OFFICE RCPT	R
R	GENERAL RCPT	20	11			900 1900	12	20	ULTRASOUND	G
R	GENERAL RCPT	20	13	1080 900			14	20	PRINTER	G
R	GENERAL RCPT	20	15		1080 900		16	20	COFFEE	K
R	GENERAL RCPT	20	17			1260 540	18	20	GENERAL RCPT	R
R	GENERAL RCPT	20	19	1080 900			20	20	PRINTER	G
R	GENERAL RCPT	20	21		900 900		22	20	PRINTER	G
R	GENERAL RCPT	20	23			1080 900	24	20	PRINTER	G
R	GENERAL RCPT	20	25	1080 900			26	20	PRINTER	G
R	GENERAL RCPT	20	27		1080 900		28	20	PRINTER	G
R	GENERAL RCPT	20	29			1080 1000	30	20	MICROWAVE	K
G	MANOGRAM	50 / 2	31	4500 1200			32	20	COFFEE	K
G	-	/ 2	33		4500 1200		34	20	DISPENSER	K
G	MANOGRAM	50 / 2	35			4500 1000	36	20	DISHWASHER	K
G	-	/ 2	37	4500 900			38	20	PRINTER	G
G	MANOGRAM	50 / 2	39		4500 900		40	20	PRINTER	G
G	-	/ 2	41			4500 900	42	20	PRINTER	G
L	LTG	20	43	1269 1080			44	20	OFFICE RCPT	R
G	COPIER	20	45		500 900		46	20	PRINTER	G
R	GENERAL RCPT	20	47			720 0	48	20	SPARE	
R	GENERAL RCPT	20	49	180 360			50	20	GENERAL RCPT	R
G	KITCHEN ONDER	20	51		900		52	20	SPARE	
R6	XYBIX FURN SYSTEM	20	53			180 0	54	20	SPARE	
G	XYBIX FURN SYSTEM	20	55	720 0			56	20	SPARE	
R6	XYBIX FURN SYSTEM	20	57		180 0		58	20	SPARE	
G	XYBIX FURN SYSTEM	20	59			720 0	60	20	SPARE	
	SPACE		61				62	20	SPARE	
	SPACE		63		0 0		64	20	SPARE	
	SPACE		65			0 0	66		SPACE	
	SPACE		67	0 0			68		SPACE	
	SPACE		69		0 0		70		SPACE	
	SPACE		71			0 0	72		SPACE	
	SPACE		73	0 0			74		SPACE	
	SPACE		75		0 0		76		SPACE	
	SPACE		77			0 0	78		SPACE	
	SPACE		79	0 0			80		SPACE	
	SPACE		81		0 0		82		SPACE	
	SPACE		83			0 0	84		SPACE	
				24469	24140	23560				

LOAD TYPE	CONNECTED KVA A ϕ	B ϕ	C ϕ	TOTAL ALL #'S	FACTOR	DEMAND KVA A ϕ	B ϕ	C ϕ	TOTAL ALL #'S
LIGHTING/CONTINUOUS	0.8	0.0	0.0	0.8	125%	1.0	0.0	0.0	1.0
RECEPTACLE (10KVA OR LESS)	3.3	3.3	3.3	10.0	100%	3.3	3.3	3.3	10.0
RECEPTACLE (OVER 10KVA)	2.2	2.6	3.3	8.2	50%	1.1	1.3	1.7	4.1
HVAC/MOTOR	0.0	0.0	0.0	0.0	100%	0.0	0.0	0.0	0.0
MOTOR(LARGEST)	0.0	0.0	0.0	0.0	125%	0.0	0.0	0.0	0.0
KITCHEN EQUIPMENT	2.0	1.2	2.0	5.2	70%	1.4	0.8	1.4	3.6
MISCELLANEOUS	16.1	17.0	14.8	48.0	100%	16.1	17.0	14.8	48.0
TOTAL KVA	24.5	24.1	23.6	72.2	TOTAL KVA	23.0	22.5	21.3	66.8
					TOTAL AMPERES	191.4	187.3	177.5	181.4

LEGEND: L = LIGHTING; R = RECEPTACLE; M = HVAC / MOTOR; K = KITCHEN; G = MISCELLANEOUS

MECHANICAL EQUIPMENT SCHEDULE

DESIGNATION	DESCRIPTION	VOLTAGE	PH	HP	kVA	FLA (MCA)	CONDUCTORS	CONDUIT	SWITCH	CB	FUSE SIZE/TYPE	REMARKS
VAV-1	VAV BOX WITH RE-HEAT	277	1	-	6.5	-	2-#10, 1-#10 GND	1/2"	30/1	30/1	30 FRS-R	
VAV-2	VAV BOX WITH RE-HEAT	277	1	-	6.5	-	2-#10, 1-#10 GND	1/2"	30/1	30/1	30 FRS-R	
VAV-3	VAV BOX WITH RE-HEAT	277	1	-	3.0	-	2-#10, 1-#10 GND	1/2"	30/1	30/1	15 FRS-R	
VAV-4	VAV BOX WITH RE-HEAT	277	1	-	4.0	-	2-#12, 1-#12 GND	1/2"	30/1	20/1	20 FRS-R	
VAV-5	VAV BOX WITH RE-HEAT	277	1	-	2.5	-	2-#10, 1-#10 GND	1/2"	30/1	30/1	15 FRS-R	
FPB-1	FAN POWERED BOX	277	1	1/2	9.3	-	2-#6, 1-# 10 GND	3/4"	60/1	50/1	50 FRS-R	
FPB-2	FAN POWERED BOX	277	1	1/2	6.3	-	2-#8, 1-#10 GND	3/4"	60/1	40/1	35 FRS-R	
FPB-3	FAN POWERED BOX	277	1	1/2	6.5	-	2-#8, 1-#10 GND	3/4"	60/1	40/1	35 FRS-R	

Legibly identify each breaker or switch for it's use or purpose on the circuit directory in the panel/switchboard per 2011 NEC 408.4.

COMcheck Software Version 3.8.2
Interior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **Alteration**
Project Title :
Construction Site: Owner/Agent: Designer/Contractor:

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Healthcare-Clinic	6724	1	6724
		Total Allowed Watts =	6724

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Healthcare-Clinic (6724 sq.ft.)				
LED Downlight: A: Other / Electronic	1	53	14	742
LED Downlight: B: Other / Electronic	1	7	14	98
Linear LED 2'x4': C: Other / Electronic	1	28	79	2212
Linear LED 2'x2': D: Other / Electronic	1	50	34	1700
Linear Fluorescent 2'x2': F: 24" T8 17W / Electronic	2	2	34	68
Linear Fluorescent: H: 22" T5 14W / Electronic	2	2	28	56
Linear LED 3'x4': G: Other / Electronic	1	27	33	891
LED Wall Mount: K: Other / Electronic Exemption:Lighting for Medical/Age Related Issues	1	18	12	Exempt
CFL Pendant Fixture ,J: Triple 4-pin 26W / Electronic	1	12	26	312
CFL Wall Mount: L: Quad 2-pin 13W / Electronic	1	11	18	198
LED Downlight: N: Other / Electronic	1	3	96	288
LED Downlight: N1: Other / Electronic	1	2	60	120
LED Undercabinet: M: Other / Electronic Exemption:Furniture-mounted Supplemental Task Lighting	1	30	8	Exempt
		Total Proposed Watts =		6685

Section 4: Requirements Checklist

Lighting Wattage:

☒ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
6724	6685	Passes

Controls, Switching, and Wiring:

☐ 2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.

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☐ 3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exceptions:

☐ Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
☐ Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

☒ 4. Independent controls for each space (switch/occupancy sensor).

Exceptions:

☐ Areas designated as security or emergency areas that must be continuously illuminated.
☐ Lighting in stairways or corridors that are elements of the means of egress.

☐ 5. Master switch at entry to hotel/motel guest room.
☐ 6. Individual dwelling units separately metered.
☐ 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.
☐ 8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exceptions:

☐ Only one luminaire in space.
☒ An occupant-sensing device controls the area.
☐ The area is a corridor, storeroom, restroom, public lobby or sleeping unit.
☐ Areas that use less than 0.6 Watts/sq.ft.

☐ 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exceptions:

☐ Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.

☐ 10. Photocell/astronomical time switch on exterior lights.

Exceptions:

☐ Lighting intended for 24 hour use.

☐ 11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

☐ Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Interior Lighting PASSES

Section 5: Compliance Statement

Compliance Statement: The proposed lighting alteration project represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting alteration project has been designed to meet the 2009 IECC, Chapter 8, requirements in COMcheck Version 3.8.2 and to comply with the mandatory requirements in the Requirements Checklist.

Galina Pampalone - Project Designer (Name - Title) — Galina Pampalone (Signature) — 07-30-12 (Date)

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Only work covered under this permit

AURORA BUILDING INSPECTION
ELECTRICAL SECTION
APPROVED
SUBJECT TO COMMENTS AS NOTED AND FIELD INSPECTIONS

CITY OF AURORA
BUILDING DIVISION
APPROVED AS NOTED MT
DATE 10/10/12
NEC 2011

The Medical Center of Aurora
Health ONE

WOMEN'S HEALTH

MEDICAL CENTER OF AURORA
1444 S. POTOMAC ST
AURORA, COLORADO 80012

TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

M.E.P. ENGINEERING
3565 S. Yosemite St.
Denver, CO 80237
info@mep-eng.com
(W) 303.936.1633
(F) 303.934.3299
www.mep-eng.com

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COLORADO REGISTERED ARCHITECT — BRENT G. MAYER — 16134 — PROFESSIONAL ENGINEER

MEP PROJECT NO.: 12137

DRAWN BY:	GVP
CHECKED BY:	DGM
SCALE:	AS SHOWN
DATE:	06/28/12
ISSUED FOR:	CONSTRUCTION

REVISIONS:
A 10/10/12

ELECTRICAL SCHEDULES

E4.0