GENERAL NOTES

1. DO NOT SCALE FROM THESE DRAWINGS. DIMENSIONS SHALL BE TAKEN FROM ARCHITECTURAL DRAWINGS.
2. THESE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED ONLY TO DEFINE THE BASIC FUNCTIONS REQUIRED. ACCESSORIES REQUIRED FOR PROPER OPERATION OF THE SYSTEMS, EVEN THOUGH NOT SPECIFICALLY INDICATED, SHALL BE INCLUDED AND INSTALLED. SUCH ACCESSORIES MAY INCLUDE, BUT ARE NOT LIMITED TO, FILTERS, CONDENSATE DRAINS, RELIEF VALVES, SERVICE VALVES, THERMOSTATS, VIBRATION ISOLATORS, MOTOR STARTERS, ETC.
3. SCOPE OF WORK CONSISTS OF FURNISHING LABOR, MATERIALS AND EQUIPMENT FOR THE INSTALLATION. IT ALSO INCLUDES PLACING INTO OPERATION COMPLETE AND OPERABLE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS AS SPECIFIED AND SHOWN. THIS INCLUDES, BUT IS NOT LIMITED TO: HVAC UNITS, EXHAUST FANS, DUCTLESS SPLIT-SYSTEMS, DUCTWORK, AIR DISTRIBUTION, CONTROLS AND ACCESSORIES.
4. ALL REQUIRED OFFSETS, RISES AND DROPS DUE TO POSSIBLE OBSTRUCTIONS OF DUCT AND PIPE RUNS ARE NOT NECESSARILY SHOWN. MECHANICAL CONTRACTOR SHALL INCLUDE A CONTINGENCY IN HIS BID TO OFFSET ANY COST REQUIRED FOR ADDITIONAL FITTINGS AND LABOR THAT MAY BE REQUIRED.MINOR DEVIATIONS FROM THE DESIGN LAYOUT IN ROUTING OF DUCT AND/OR PIPING ARE ANTICIPATED AND SHALL BE CONSIDERED A PART OF THE WORK INCLUDED. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
5. HVAC LAYOUT IS BASED ON ARCHITECTURAL DRAWINGS AVAILABLE AT TIME OF DESIGN. AS STRUCTURAL OR OTHER FIELD CHANGES MAY OCCUR, CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY LOCATION OF ALL HVAC EQUIPMENT AND DUCTWORK BEFORE INSTALLATION. MECHANICAL CONTRACTOR SHALL NOTIFY BUILDER OF ANY REQUIRED ALTERATIONS. EITHER CONTRACTOR OR OWNER SHALL TAKE RESPONSIBILITY FOR VERIFYING THE INTEGRITY OF THE CHANGES WITH THE HVAC DESIGN ENGINEER.
6. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ALL APPLICABLE CODES AND REGULATIONS INCLUDING BUT NOT LIMITED TO NATIONAL, CITY, STATE AND LOCAL ORDINANCES WHICH MAY BE IN EFFECT. ALL HVAC MATERIALS, INSTALLATION PROCEDURES AND SYSTEM LAYOUTS SHALL BE APPROVED BY ALL APPLICABLE CODE ENFORCEMENT AUTHORITIES HAVING JURISDICTION. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THESE RULES, REGULATIONS AND ORDINANCES AT NO ADDITIONAL COST. THESE CODES REPRESENT THE MINIMUM ACCEPTABLE REQUIREMENTS, THEREFORE, WHERE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF THESE CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN.
7. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO PAY FOR ALL NECESSARY PERMITS AND APPROVALS FOR THIS INSTALLATION.
8. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. IN ADDITION, THE MECHANICAL CONTRACTOR MUST COORDINATE WITH AN OWNER REPRESENTATIVE TO FULLY UNDERSTAND ALL REQUIREMENTS WHICH MAY NOT BE SPECIFIED HEREIN AND WHICH THE OWNER MAY CONSIDER PART OF THIS CONTRACT. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO WORK CLOSELY WITH ALL ACCOMPANYING CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
9. ANY DISCREPANCIES OR INADEQUACIES WITHIN THESE BID DOCUMENTS OR BETWEEN THESE BID DOCUMENTS AND THE RELATED PLUMBING, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS, OR BETWEEN THESE BID DOCUMENTS AND FIELD CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE OWNER, ARCHITECT AND ENGINEER PRIOR TO BID SUBMISSION.
10. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL NEW PRODUCTS OF ESTABLISHED AND REPUTABLE MANUFACTURERS. NO EQUIPMENT SUBSTITUTIONS SHALL BE MADE THAT WOULD LEAVE INADEQUATE OPERATING OR SERVICE SPACE. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND IN AN ARRANGEMENT THAT WILL GIVE THE GREATEST PRACTICAL EASE OF OPERATION AND SERVICE TO THE OWNER. MATERIALS AND EQUIPMENT SHALL BE INSTALLED SQUARELY WITH THE BUILDING LINES.
11. CONSTRUCT AND BRACE EQUIPMENT, PIPING, ETC., SO THAT THERE WILL BE NO VIBRATION AND/OR RATTLING WHEN THE SYSTEM IS IN OPERATION.
12. SPECIFIC REFERENCE TO A MANUFACTURER'S PRODUCT IS ONLY TO ESTABLISH TYPE, QUALITY, AND PERFORMANCE REQUIRED. THESE QUALIFICATIONS ARE IN ADDITION TO THE REQUIREMENTS SHOWN ON THE PLANS.
13. FABRICATE, SUPPORT, TEST AND INSTALL ALL DUCTWORK IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA H.V.A.C. DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE - SECOND EDITION AND ALL APPLICABLE BUILDING CODES.
14. RETURN AIR DUCT TO HAVE AT LEAST ONE (1) 90° ELBOW BETWEEN THE PLENUM ON THE FAU TO THE PLENUM AT THE RETURN AIR GRILLE. PLENUM BOX AT RETURN AIR GRILLE TO BE A MINIMUM 6" DEEP. RETURN AIR GRILLES TO BE A MINIMUM OF 3' DISTANCE FROM SMOKE DETECTORS.
15. ALL OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10' FROM ANY PLUMBING VENT, EXHAUST, AND FLUE OUTLETS.
16. EXHAUST DUCTS SHALL TERMINATE THREE (3) FEET FROM ANY BUILDING OPENING AND BE EQUIPPED WITH A BACKDRAFT DAMPER. SCREENS SHALL NOT BE INSTALLED AT THE DUCT TERMINATION.
17. ALLOW 24" TO 36" OF STRAIGHT RUN FROM FAN OUTLET POINT BEFORE ADDING AN ELBOW OR BEND TO EXHAUST DUCTWORK.
18. FLASH AND COUNTER FLASH ALL ROOF PENETRATIONS. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.
19. SEAL ALL REFRIGERATION LINE PENETRATIONS AIR AND WATER TIGHT w/ SILICONE SEALANT.
20. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING, ADJUSTING, AND BALANCING (T.A.B.). T.A.B. WORK SHALL INCLUDE THE ENTIRE AIR-SIDE SYSTEM AND BE PERFORMED IN ACCORDANCE WITH NEBB OR AABC REQUIREMENTS. TOLERANCES FOR AIR INLETS AND OUTLETS SHALL BE +/- 5% UNLESS NOTED OTHERWISE.
21. CONTRACTOR SHALL INSPECT ANY EXISTING DUCTWORK FOR DEFECTS AND REPORT TO THE ARCHITECT/ENGINEER AND THE OWNER ANY DEFICIENCIES PRIOR TO PERFORMING ANY WORK. CONTRACTOR SHALL CLEAN ALL EXISTING DUCTWORK, GRILLES, REGISTERS AND DIFFUSERS PRIOR TO INSTALLING THE NEW WORK.
22. CONTRACTOR SHALL PAINT BLACK BEHIND ALL GRILLES AND REGISTERS AND INSIDE OF DUCT WHERE VISIBLE.
23. UNLESS NOTED OTHERWISE, DUCTWORK BEYOND SA & RA PLENUMS MAY BE CONSTRUCTED OF METAL, OR FACTORY-MANUFACTURED INSULATED DUCTWORK.
24. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS WHETHER SHOWN OR NOT.
25. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
26. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
27. HVAC UNIT FLEXIBLE DUCT CONNECTIONS SHALL BE A MINIMUM OF 6 INCHES LONG AND HELD IN PLACE WITH HEAVY METAL BANDS, SECURELY ATTACHED TO PREVENT ANY LEAKAGE AT THE CONNECTION POINTS. FLEXIBLE CONNECTIONS SHALL BE FABRICATED FROM APPROVED FLAME PROOF FABRIC CONFORMING TO NFPA 90A. ASBESTOS CLOTH IS NOT ACCEPTABLE.
28. CONTRACTOR SHALL PROVIDE AND INSTALL REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND IN SUCH A WAY AS TO BE INCONSPICIOUS AND FREE FROM ANY POSSIBLE CONDENSATION. INSULATE REFRIGERANT LINES WITH ARMOUR- FLEX TYPE INSULATION.
29. REFRIGERANT PIPING OTHER THAN PRECHARGED TUBING SETS FURNISHED BY AIR CONDITIONING MANUFACTURER SHALL BE TYPE "ACR" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. PIPING SHALL BE INSTALLED IN ACCORDANCE WITH ARI STANDARDS. USE EASY-FLO OR SAFETY SILVER BRAZING ALLOY TO MAKE JOINTS. RUN ALL HORIZONTAL LINES DEAD LEVEL TO ENSURE PROPER GAS RETURN TO COMPRESSOR.
30. ALL MATERIALS OF INSULATION SHALL BE OF THE TYPE AND QUALITY AS MANUFACTURED BY ARMSTRONG, CERTAINTEED, OWENS-CORNING OR MANVILLE. ALL MATERIAL AND EQUIPMENT SPECIFIED TO BE INSULATED SHALL BE THOROUGHLY TESTED AND APPROVED PRIOR TO APPLYING THE INSULATION. THE INSTALLATION OF ALL INSULATION SHALL BE PERFORMED BY AN EXPERIENCED CRAFTSMAN IN A NEAT WORKMANSHIP-LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR SERVICE INTENDED.
31. WRAPPED INSULATION ON DUCTWORK SHALL BE 1-1/2 INCH THICK GLASS FIBER FLEXIBLE DUCT INSULATION, ONE POUND DENSITY WITH UL APPROVED FOIL SCRIM KRAFT FRJ JACKET. SECURE WITH ADHESIVE APPLIED DIRECTLY TO THE DUCT IN 4 INCH WIDE STRIPS AROUND THE DUCT ON 12 INCH CENTERS AND TAPE ALL JOINTS.
32. ACOUSTICAL DUCT LINING SHALL BE 1 INCH THICK OWENS-CORNING AEROFLEX TYPE 300 COMPLYING WITH FIRE CLASSIFICATION REQUIREMENTS OF NFPA 90A AND 90B. ADHERE LINER TO DUCT WITH FIRE RESISTANT ADHESIVE AND WELDED PIN TYPE MECHANICAL FASTENERS AS INDICATED IN SMACNA STANDARDS.
33. WRAPPED INSULATION ON ROUND DUCTWORK SHALL BE 1-1/2 INCH THICK GLASS FIBER WITH LAMINATED KRAFT-FOIL VAPOR BARRIER 2PC COMPLYING WITH FIRE CLASSIFICATION REQUIREMENTS OF NFPA 90A AND 90B.
34. DUCTWORK DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. DIMENSIONS SHALL BE INCREASED TO ACCOMMODATE LINING THICKNESS. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.
35. CONTRACTOR SHALL PROVIDE ALL AIR TEMPERATURE CONTROLS INCLUDING WIRING, TUBING AND THERMOSTATS (WITH LOCKING COVERS)AND ALL MISCELLANEOUS APPURTENANCES TO MEET THE INTENT OF THESE DOCUMENTS.
36. CONTRACTOR SHALL FURNISH AND INSTALL UL LISTED DUCT SMOKE DETECTORS AS SHOWN ON DRAWINGS WITH AUXILIARY CONTACTS FOR CONNECTION TO THE FIRE ALARM SYSTEM. DETECTORS SHALL DE-ENERGIZE AIR HANDLING UNIT UPON ACTIVATION.
37. VIBRATION ISOLATORS FOR HANGING EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL 30N, COMBINATION SPRING AND DOUBLE DEFLECTION NEOPRENE HANGER, OR DEFLECTION AS RECOMMENDED BY MANUFACTURER.
38. VIBRATION ISOLATORS FOR BASE MOUNTED EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL SLF, DEFLECTION AS RECOMMENDED BY MANUFACTURER.
39. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL DIMENSIONS IN THE FIELD, AND SHALL ADVISE THE ARCHITECT/ENGINEER AND THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.
40. CONTRACTOR SHALL SCHEDULE ALL SHUTDOWNS THAT AFFECT UTILITIES AND PORTIONS OF THE BUILDING THAT MUST REMAIN IN OPERATION WITH THE OWNER.
41. WHERE CONDUIT, CABLES, DUCTWORK OR PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A FIRE STOP MATERIAL THAT IS UL LISTED AND ACCEPTED BY THE BUILDING DEPARTMENT AND FIRE DEPARTMENT AS BEING SUITABLE FOR THIS SERVICE SUCH AS DOW CORNING CORP., SILICONE ELASTOMER, DOW CORNING 3-6548 SILICONE RTV FOAM, OR APPROVED EQUAL. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL OR FLOOR
42. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTI- TION, OR AS OTHERWISE SHOWN ON DRAWINGS.
43. THE CONTRACTOR SHALL PROVIDE MAINTENANCE INSTRUCTIONS FOR EQUIPMENT AND SYSTEM THAT REQUIRE PREVENTATIVE MAINTENANCE. INSTRUCTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL AND INCLUDE THE TITLE OR PUBLICATION NUMBER FOR THE OPERATION AND MAINTENANCE MANUAL FOR THAT PARTICULAR MODEL AND TYPE OF PRODUCT.

HVAC LEGEND

SYMBOL	DESCRIPTION
20"Ø	ELBOW UP DIMENSION DESCRIPTION: 14"Ø = ROUND DUCT 24x12 FO = FLAT OVAL DUCT
	ELBOW DOWN
R	LONG RADIUS ELBOW RADIUS (R) = 1.5 TIMES DIAMETER OF DUCT DIMENSION DESCRIPTION: 1ST FIGURE = SIDE SHOWN 2ND FIGURE = SIDE NOT SHOWN
36x24	SUPPLY AIR ELBOW UP
	SUPPLY AIR ELBOW DOWN
	EXHAUST/RETURN AIR ELBOW UP
	EXHAUST/RETURN AIR ELBOW DOWN
36x12 24x12	DOUBLE SIDE TRANSITION TRANSITION SLOPE SPECIFICATION: MINIMUM SLOPE = 15° MAXIMUM SLOPE = 45°
36x12 24x12	SINGLE SIDE TRANSITION
36x12 24x12	TOP TRANSITION (SLOPE ON TOP)
36x12 24x12	BOTTOM TRANSITION (SLOPE ON BOTTOM)
	ACOUSTICALLY LINED SHEET METAL DUCT
	MANUAL BALANCING DAMPER
	FLEX CONNECTOR
A.D. A.D.	ACCESS DOORS
F/D F/SD S/D	FIRE DAMPER, FIRE/SMOKE DAMPER, SMOKE DAMPER
M	MOTORIZED DAMPER NOTE: NOT ALL SYMBOLS MAY BE USED
	TURNING VANE ELBOW
	45° LOW-LOSS TAKE-OFF FITTING W/ DAMPER & FLEX DUCT
	45° LOW-LOSS TAKE-OFF FITTING W/ DAMPER & RIGID DUCT
	90° TEE TAKE-OFF FITTING
	CONICAL 90° TEE TAKE-OFF FITTING
	45° TEE TAKE-OFF FITTING
	LOW LOSS TAKE-OFF FITTING
SA	SUPPLY AIR DUCT (SINGLE LINE)
RA	RETURN AIR DUCT (SINGLE LINE)
EA	EXHAUST AIR DUCT (SINGLE LINE)
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	SIDE WALL SUPPLY AIR REGISTER
	DIFFUSER, REGISTER OR GRILLE 4-WAY THROW PATTERN UNLESS SHOWN OTHERWISE ON DRAWINGS
(T) RTU-1	THERMOSTAT - CONTROLED EQUIPMENT NOTED

STANDARD ABBREVIATIONS

AC	AIR CONDITIONING UNIT	ET	EXPANSION TANK	NTS	NOT TO SCALE
AD	ACCESS DOOR	EWB	ENTERING WET BULB	OA	OUTSIDE AIR
AFF	ABOVE FINISHED FLOOR	EWT	ENTERING WATER TEMPERATURE	OBD	OPPOSED BLADE DAMPER
AHU	AIR HANDLING UNIT	EXH	EXHAUST	PD	PRESSURE DROP
AMB	AMBIENT	FPM	FEET PER MINUTE	PSI	POUNDS/SQUARE INCH
APD	AIR PRESSURE DROP	FT	FEET OR FOOT	RA	RETURN AIR
APPROX	APPROXIMATE	GPM	GALLONS PER MINUTE	RH	RELATIVE HUMIDITY
AVG	AVERAGE	HC	HEATING COIL	RT	ROOFTOP UNIT
BDD	BACK DRAFT DAMPER	HP	HORSEPOWER	SA	SUPPLY AIR
BHP	BRAKE HORSE POWER	HWR	HOT WATER RETURN	FSD	FIRE/SMOKE DAMPER
BOD	BOTTOM OF DUCT	HWS	HOT WATER SUPPLY	SP	STATIC PRESSURE
BTU/H	BRITISH THERMAL UNIT/HOUR	HX	HEAT EXCHANGER	SPEC	SPECIFICATIONS
CAP	CAPACITY	IN	INCHES	SL	SEA LEVEL
CFM	CUBIC FEET PER MINUTE	INWG	INCHES IN WATER GAUGE	SQ	SQUARE
CU	CONDENSING UNIT	INWC	INCHES IN WATER COLUMN	SS	STAINLESS STEEL
CP	CONDENSATE PUMP	LAT	LEAVING AIR TEMPERATURE	T.A.B.	TEST AND BALANCING
CUH	CABINET UNIT HEATER	LWT	LEAVING WATER TEMPERATURE	TCP	TEMPERATURE CONTROL PANEL
CC	COOLING COIL	MAU	MAKEUP AIR UNIT	TEMP	TEMPERATURE
D/DIA	DIAMETER	MAX	MAXIMUM	TSP	TOTAL STATIC PRESSURE
DB	DRY BULB TEMPERATURE	MBH	BTU'S PER HOUR (THOUSAND)	T-STAT	THERMOSTAT
DEG.	DEGREES	MD	MOTORIZED DAMPER	TYP	TYPICAL
D.L.	DUCT LINER	MFR	MANUFACTURER	UH	UNIT HEATER
(E)	EXISTING	MIN	MINIMUM	VAV	VARIABLE AIR VOLUME
EA	EXHAUST AIR	MVD	MANUAL VOLUME DAMPER	VEL	VELOCITY
EAT	ENTERING AIR TEMPERATURE	(N)	NEW	VFD	VARIABLE FREQUENCY DRIVE
EDB	ENTERING DRY BULB	NA	NOT APPLICABLE	W/	WITH
EFF	EFFICIENCY	NIC	NOT IN CONTRACT	WB	WET BULB
ELECT	ELECTRICAL	NC	NORMALLY CLOSED	WPD	WATER PRESSURE DROP
ELEV	ELEVATION	NO	NORMALLY OPENED	WMS	WIRE MESH SCREEN
ESP	EXTERNAL STATIC PRESSURE	NOM	NOMINAL		

SHEET INDEX

SHEET NUMBER	SHEET TITLE	100% CD 04-25-2016		
M0.01	GENERAL INFORMATION	●		
M0.04	DEMO FLOOR PLAN	●		
M1.01	FLOOR PLAN	●		

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SHEET CONTENTS:
GENERAL INFORMATION

DATE:
APRIL 25, 2016

JOB NO:
16323.00

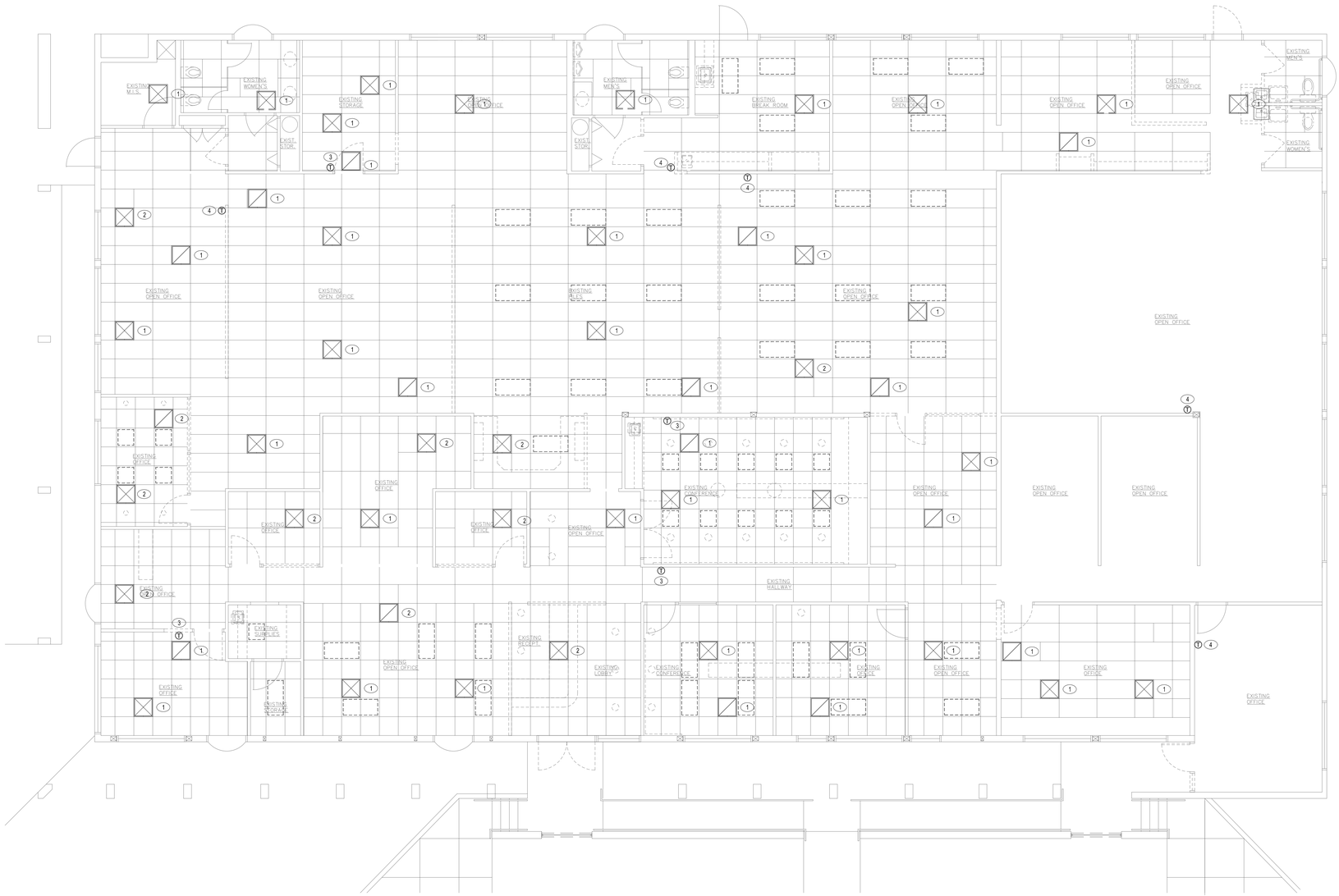
SHEET:
M0.01

GENERAL NOTES:

1. MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START.
2. COORDINATE ALL MECHANICAL WORK FOR POTENTIAL CONFLICTS WITH OTHER TRADES.
3. UNLESS OTHERWISE NOTED ALL MECHANICAL EQUIPMENT, DUCTWORK, AND AIR TERMINALS SHALL REMAIN.

KEY NOTES: (8)

1. CLEAN AND REUSE EXISTING DIFFUSERS AND GRILLES IN SAME LOCATION.
2. CLEAN AND REUSE EXISTING DIFFUSERS AND GRILLES IN NEW LOCATION. SEE SHEET M1.01 FOR NEW LOCATION.
3. T-STAT TO BE REMOVED AND REPLACED IN SAME LOCATION.
4. T-STAT TO BE REMOVED AND REPLACED IN NEW LOCATION. SEE SHEET M1.01 FOR NEW LOCATION.



1 DEMO FLOOR PLAN
SCALE: 3/16" = 1'-0"

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SHEET CONTENTS:
DEMO FLOOR PLAN

DATE:
APRIL 25, 2016
JOB NO:
16323.00

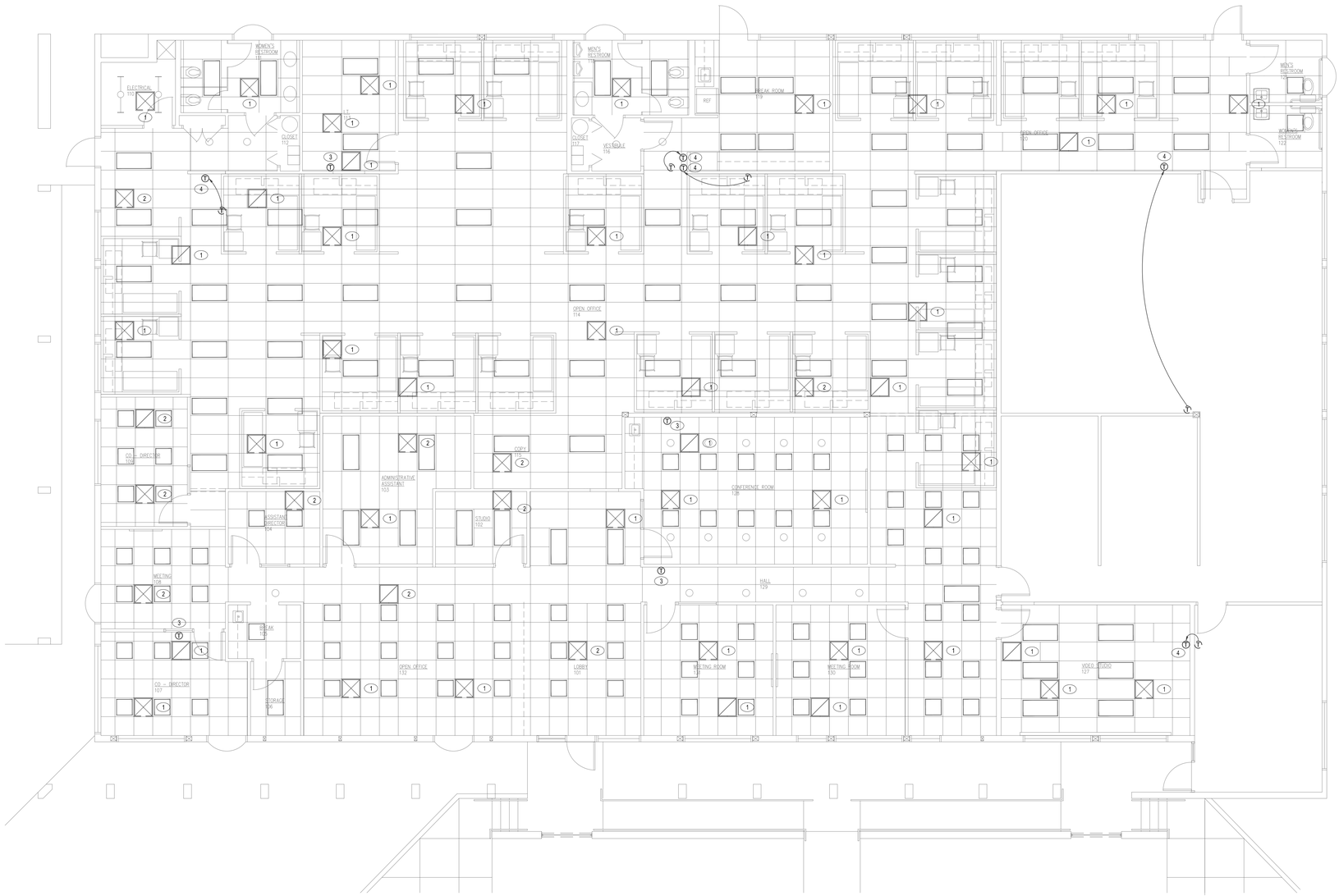
SHEET:
M0.04

GENERAL NOTES:

1. POSITION ALL UNITS & FANS TO PROVIDE ADEQUATE CLEARANCE FOR MAINTENANCE PER CODE.
2. COORDINATE ALL MECHANICAL WORK FOR POTENTIAL CONFLICTS WITH OTHER TRADES.
3. MAIN DUCT PENETRATIONS SHALL BE FULL SIZE RIGID SHEET METAL DOWN BELOW ROOF WITH ADEQUATE LENGTH TO ATTACH DUCT RUNS AND SMOKE DETECTOR.
4. ALL EXPOSED DUCTWORK SHALL BE RIGID SHEET METAL. ALL OTHER SUPPLY AND RETURN DUCTWORK MAY BE FLEXIBLE DUCTWORK. ALL EXHAUST DUCK SHALL BE RIGID SHEET METAL.

KEY NOTES: (#)

1. CLEAN AND REUSE EXISTING DIFFUSER OR GRILLE IN SAME LOCATION.
2. CLEAN AND REUSE EXISTING DIFFUSER OR GRILLE IN NEW LOCATION. SHIFT DIFFUSER OR GRILLE LOCATION IN GRID AND EXTEND CORRESPONDING FLEX DUCT AS NECESSARY.
3. PROVIDE NEW PROGRAMMABLE T-STAT IN EXISTING LOCATION. PROVIDE ALTERNATE BID FOR WIFI ENABLED PROGRAMMABLE T-STAT.
4. PROVIDE NEW PROGRAMMABLE T-STAT IN NEW LOCATION. PROVIDE ALTERNATE BID FOR WIFI ENABLED PROGRAMMABLE T-STAT.



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SCALE: 3/16" = 1'-0"

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4. ALL REQUIRED OFFSETS, RISES AND DROPS DUE TO POSSIBLE OBSTRUCTIONS OF PIPE RUNS ARE NOT NECESSARILY SHOWN. PLUMBING CONTRACTOR SHALL INCLUDE A CONTINGENCY IN HIS BID TO OFFSET ANY COST REQUIRED FOR ADDITIONAL FITTINGS AND LABOR THAT MAY BE REQUIRED.
5. PLUMBING LAYOUT REPRESENTED IN THESE DRAWINGS IS BASED ON ARCHITECTURAL DRAWINGS AVAILABLE AT TIME OF DESIGN. AS STRUCTURAL OR OTHER FIELD CHANGES MAY OCCUR, PLUMBING CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY LOCATION OF ALL PLUMBING EQUIPMENT AND PIPING BEFORE INSTALLATION. PLUMBING CONTRACTOR SHALL NOTIFY BUILDER OF ANY REQUIRED ALTERATIONS. EITHER CONTRACTOR OR OWNER SHALL TAKE RESPONSIBILITY FOR VERIFYING THE INTEGRITY OF THE CHANGES WITH THE PLUMBING DESIGN ENGINEER.
6. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ALL APPLICABLE CODES AND REGULATIONS INCLUDING BUT NOT LIMITED TO NATIONAL, CITY, STATE AND LOCAL ORDINANCES WHICH MAY BE IN EFFECT. ALL PLUMBING MATERIALS, INSTALLATION PROCEDURES AND SYSTEM LAYOUTS SHALL BE APPROVED BY ALL APPLICABLE CODE ENFORCEMENT AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THESE RULES, REGULATIONS AND ORDINANCES AT NO ADDITIONAL COST. THESE CODES REPRESENT THE MINIMUM ACCEPTABLE REQUIREMENTS, THEREFORE, WHERE DRAWINGS AND/OR SPECIFICATIONS INDICATE MATERIALS OR CONSTRUCTION IN EXCESS OF THESE CODE REQUIREMENTS, THE DRAWINGS AND/OR SPECIFICATIONS SHALL GOVERN.
7. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO PAY FOR ALL NECESSARY PERMITS AND APPROVALS FOR THIS INSTALLATION.
8. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. IN ADDITION, THIS CONTRACTOR MUST COORDINATE WITH AN OWNER REPRESENTATIVE TO FULLY UNDERSTAND ALL REQUIREMENTS WHICH MAY NOT BE SPECIFIED HEREIN AND WHICH THE OWNER MAY CONSIDER PART OF THIS CONTRACT. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO WORK CLOSELY WITH ALL ACCOMPANYING CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
9. ANY DISCREPANCIES OR INADEQUACIES WITHIN THESE BID DOCUMENTS OR BETWEEN THESE BID DOCUMENTS AND THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS, OR BETWEEN THESE BID DOCUMENTS AND FIELD CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE OWNER, ARCHITECT AND ENGINEER PRIOR TO BID SUBMISSION.
10. THE PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING INVERT ELEVATIONS PRIOR TO BID SUBMISSION. IF ANY CONFLICTS EXIST BETWEEN THE NEW PLUMBING SYSTEMS AND THE EXISTING SITE LEVEL SYSTEMS, THEY SHOULD BE BROUGHT TO THE ATTENTION OF AN OWNER'S REPRESENTATIVE AND THE ENGINEER PRIOR TO BID SUBMISSION. EXTRA COMPENSATION WILL NOT BE GRANTED FOR ANY EXTRA WORK OR MATERIAL WHICH RESULTS FROM AN INABILITY TO MEET THE INVERTS OF THE EXISTING SITE LEVEL PIPING SYSTEMS.
11. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL NEW PRODUCTS OF ESTABLISHED AND REPUTABLE MANUFACTURERS. DO NOT MAKE EQUIPMENT SUBSTITUTIONS THAT WOULD LEAVE INADEQUATE OPERATING OR SERVICE SPACE. PLUMBING CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND IN AN ARRANGEMENT THAT WILL GIVE THE GREATEST PRACTICAL EASE OF OPERATION AND SERVICE TO THE OWNER. INSTALL MATERIALS AND EQUIPMENT SQUARELY WITH THE BUILDING LINES WHEREVER POSSIBLE.
12. THE PLUMBING CONTRACTOR SHALL RUN ALL DOMESTIC WATER, WASTE, VENT AND GAS PIPING AS HIGH AS POSSIBLE THROUGHOUT THE ENTIRE BUILDING. INSTALL LONG RUNS OF PIPING WITHIN STEEL JOIST SPACE AND OTHER PIPING TIGHT TO BOTTOM OF STEEL. COORDINATE AND VERIFY WITH OTHER CONTRACTORS AS NOT TO INTERFERE WITH DUCTWORK, FIRE PROTECTION PIPING, LIGHTING SYSTEMS, ETC.
13. ALL EXPOSED HORIZONTAL AND VERTICAL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT IN LOCATIONS WHICH ARE THE MOST INCONSPICUOUS. VERTICAL DROPS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND THEIR FINAL LOCATIONS SHALL BE COORDINATED AND RUN WITHIN CHASES, WALLS, SOFFITS WITH OTHER MECHANICAL/ ELECTRICAL FEEDS. ALL SUCH LOCATIONS ARE TO BE REVIEWED WITH AN OWNER REPRESENTATIVE AND ARCHITECT PRIOR TO INSTALLATION.
14. FINAL CONNECTIONS TO ALL GAS FIRED EQUIPMENT TO BE BY THE PLUMBING CONTRACTOR, REGARDLESS OF WHO PROVIDES EQUIPMENT. THIS SHALL INCLUDE BUT NOT BE LIMITED TO HVAC EQUIPMENT, WATER HEATERS, ETC.. EACH PIECE OF EQUIPMENT SHALL BE PROVIDED WITH A DIRT LEG, LUBRICATED PLUG VALVE, UNION AND GAS SHUT-OFF VALVE.
15. ALL PLUMBING FIXTURES / APPLIANCES SHALL HAVE THEIR OWN INDEPENDENT SHUT- OFF VALVES, INSTALLED IN AN EASILY ACCESSIBLE AND CONVENIENT LOCATION.
16. ALL DOMESTIC WATER BRANCH LINES SHALL HAVE THEIR OWN RESPECTIVE SHUT-OFF VALVES WHETHER OR NOT SHOWN ON THE DRAWINGS.
17. DOMESTIC WATER HEATER TEMPERATURE / PRESSURE RELIEF VALVES SHALL BE PIPED FULL SIZE TO THE NEAREST APPROVED STANDPIPE, FLOOR DRAIN OR SINK. THIS REQUIREMENT SHALL BE APPLICABLE TO ALL DOMESTIC WATER HEATING STORAGE VESSELS.
18. WHERE APPLICABLE, DO NOT RUN VENTS THROUGH ROOF AT PRE-FINISH METAL ROOFING SYSTEMS. OFFSET VENT PIPING BELOW ROOF TO RISE THROUGH FLAT MEMBRANE ROOF. VENTS THROUGH ROOF SHALL NOT BE VISIBLE FROM GRADE.
19. THE PLUMBING CONTRACTOR SHALL RUN OUT ALL BUILDING DRAINAGE AND WASTE LINES WHERE SHOWN ON THE DRAWINGS AND MAKE ALL CONNECTIONS TO SITE LEVEL SYSTEMS.
20. ALL EXPOSED PIPING BELOW LAVATORY'S DESIGNATED AS HANDICAPPED SHALL BE TOTALLY INSULATED.
21. ALL ROOF DRAIN SUMPS AND HORIZONTAL STORM DRAINAGE PIPING LOCATED ABOVE CEILINGS SHALL BE FULLY INSULATED INCLUDING ALL FITTINGS.
22. ALL NON-DRAINAGE PIPING SHALL BE RUN LEVEL AND GENERALLY FREE OF TRAPS AND UNNECESSARY BENDS, ARRANGED TO CONFORM TO THE BUILDING REQUIREMENTS AND TO SUIT THE NECESSITIES OF CLEARANCES FOR OTHER MECHANICAL WORK. PROVIDE VALVED DRAINAGE OUTLETS IN AREAS OF PIPING WHICH WOULD BE UNDRAINABLE DURING MAINTENANCE OR REPAIRS.
23. AUTOMATIC TRAP PRIMERS SHALL BE INSTALLED AND CONNECTED TO FLOOR DRAINS NOT RECEIVING INTERMITTENT FLOWS TO MAINTAIN THE TRAP SEAL. TRAP PRIMERS SHALL BE LOCATED AT THE NEAREST FIXTURE OR APPLIANCE TO DRAIN BEING FED.
24. ALL EXPOSED SUPPLY AND DRAINAGE PIPING SHALL BE PROPERLY LABELED AS TO THE TYPE OF SYSTEM AND DIRECTION OF FLOW.
25. LOCATE ACCESS PANELS IN NON ACCESSIBLE CEILINGS AND WALLS FOR ALL VALVES, SHOCK ABSORBERS, CLEANOUTS AND ALL OTHER ITEMS THAT REQUIRE ACCESS TO PROPERLY MAINTAIN OR SERVICE THE BUILDING.
26. CONNECT NEW WORK TO ANY EXISTING WORK IN A NEAT AND APPROVED MANNER.
27. ANY EXISTING PIPING INDICATED ON THESE PLANS SHALL BE VERIFIED IN THE FIELD FOR EXACT LOCATIONS, QUANTITY, AND PIPE SIZES.
28. PROVIDE ALL NECESSARY FLASHING AND COUNTERFLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS, CONDUIT AND EQUIPMENT.
29. ALL (VTR'S) VENT THRU ROOF PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY. FINAL LOCATIONS SHALL BE COORDINATED WITH ALL TRADES. ALL VTR'S SHALL BE A MINIMUM OF 10'-0" FROM ALL FRESH AIR INTAKE OPENINGS.
30. COMPLY WITH ALL LOCAL AND STATE CODES FOR SEISMIC ISOLATION. THE DRAWINGS DO NOT SHOW ALL SEISMIC ISOLATION POINTS,THEREFORE ALLOW FOR SEISMIC ISOLATION IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.
31. ALL VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES. CONTRACTOR IS RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.
32. PLUMBING CONTRACTOR SHALL CONSTRUCT AND BRACE EQUIPMENT, PIPING, ETC., SO THAT THERE WILL BE NO VIBRATION AND/OR RATTLING WHEN THE SYSTEM IS IN OPERATION.
33. ALL HOT WATER PIPING SHALL BE INSULATED PER CURRENTLY ADOPTED ENERGY CODE REQUIREMENTS.
34. SIZE OF SHUT-OFF VALVES, BALANCING COCKS, UNIONS, ETC., SHALL BE FULL LINE SIZE.
35. CLEAN OUTS SHALL BE INSTALLED AS SHOWN AND AS REQUIRED BY CODE.
36. ALL DOMESTIC WATER PIPING SHALL CONFORM TO THE REQUIREMENTS OF THE ANSI SAFETY CODE AND BE FREE FROM ALL DEFECTS AND BE PROPERLY IDENTIFIED.
37. STERILIZE THE ENTIRE WATER DISTRIBUTION SYSTEM PER THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
38. DOMESTIC WATER SYSTEM, WASTE, SOIL AND VENT SYSTEM SHALL ALL BE TESTED PER LOCAL AUTHORITY HAVING JURISDICTION. TEST AND OBTAIN APPROVAL ON ALL UNDERGROUND PIPING FROM ADMINISTRATIVE AUTHORITY HAVING JURISDICTION PRIOR TO COVERING WORK.
39. PLUMBING CONTRACTOR SHALL PROVIDE INITIAL START UP OF ALL SYSTEMS INCLUDED IN THE PLUMBING WORK.
40. REFER TO ARCHITECTURAL DRAWINGS TO DETERMINE WHERE FIRE-RATED WALLS OCCUR.
41. THE PLUMBING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF RECORD "AS-BUILT" DRAWINGS INDICATING THE PRECISE LOCATION OF ALL SYSTEMS, EQUIPMENT CONCEALED OR EMBEDDED PIPING, PIPING CONNECTIONS AND ACCESS DOORS. THESE DRAWINGS SHALL ALSO INCLUDE ALL CHANGES AND DEVIATIONS FROM THE BID DOCUMENTS.
42. PLUMBING CONTRACTOR SHALL PROVIDE MAINTENANCE INSTRUCTIONS FOR EQUIPMENT AND SYSTEMS THAT REQUIRE PREVENTATIVE MAINTENANCE. INSTRUCTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL AND INCLUDE THE TITLE OR PUBLICATION NUMBER FOR THE OPERATION AND MAINTENANCE MANUAL FOR THAT PARTICULAR MODEL AND TYPE OF PRODUCT.

PLUMBING LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CD	CONDENSATE DRAIN		BALL VALVE
	DOMESTIC COLD WATER		BUTTERFLY VALVE
	DOMESTIC HOT WATER		GAS SHUT OFF VALVE
	DOMESTIC HOT WATER RETURN		ANGLE VALVE
140	DOMESTIC HOT WATER (140° F)		GLOBE VALVE
140	DOMESTIC HOT WATER RETURN (140° F)		MOTORIZED T.C. VALVE/2-WAY
RCW	RAW COLD WATER		MOTORIZED T.C. VALVE/3-WAY
F	FIRE PROTECTION		PRESSURE REDUCING VALVE
	WASTE ABOVE GROUND		SAFETY RELIEF VALVE
	WASTE BELOW GROUND		GATE VALVE
	VENT		SHUT-OFF VALVE IN RISER
GW	GREASE WASTE		SWING CHECK VALVE
AW	ACID WASTE ABOVE GROUND		BACKFLOW PREVENTER
AW	ACID WASTE BELOW GROUND	M	MANUAL FLOW BALANCING VALVE (CIRCUIT SETTER)
AV	ACID VENT	T	DIAL THERMOMETER
RDL	ROOF DRAIN LEADER	P	PRESSURE GAUGE W/ SNUBBER
ODL	OVERFLOW DRAIN LEADER		STRAINER
G	NATURAL GAS		FLEX CONNECTOR
LPG	LIQUIFIED PETROLEUM GAS (PROPANE)		UNION
MPG	MEDIUM PRESSURE NATURAL GAS		TEE UP
HPG	HIGH PRESSURE NATURAL GAS		TEE DOWN
A	COMPRESSED AIR		ELBOW UP
V	VACUUM		ELBOW DOWN
N	MEDICAL NITROGEN	M	WATER METER
N20	MEDICAL NITROUS OXIDE	M	GAS METER
CO2	CARBON DIOXIDE		WATER HAMMER ARRESTER (WHA)
(E)	EXISTING PIPING		HOSE BIBB, EXPOSED
	DEMOLITION WORK		HOSE BIBB, RECESSED
S = -%	SLOPE DOWN IN DIRECTION OF FLOW		AUTOMATIC AIR VENT
UNIT	EQUIPMENT TAG	(E)	CONNECT NEW WORK TO EXISTING
UNIT / DIAGRAM / SHEET	DIAGRAM TAG CALLOUT		FLOW INDICATOR
DIAGRAM	DIAGRAM TAG		PIPE CAP
			IN-LINE CIRCULATION PUMP
			TRAP PRIMER
			PIPE BREAK
			SUMP PUMP
			TWO WAY GRADE CLEAN OUT
			FLOOR CLEAN OUT / CLEAN OUT TO GRADE
			WALL CLEAN OUT
			FLOOR DRAIN
			FLOOR SINK
			ROOF / OVERFLOW DRAIN

NOTE: NOT ALL SYMBOLS MAY BE USED

PLUMBING FIXTURE SCHEDULE

MARK	ITEM	DESCRIPTION	CONNECTIONS				MODEL
			COLD	HOT	WASTE	VENT	
WC-1	WATER CLOSET	FLOOR MOUNTED, VITREOUS WHITE CHINA WATER CLOSET WITH ELONGATED BOWL. PROVIDE Z6000AV-HET MANUAL 1.28 GPF FLUSH VALVE AND Z5955SS-EL-STS WHITE TOILET SEAT.	1"	-	4"	2"	ZURN Z5655
WC-2	WATER CLOSET (ADA)	ADA HEIGHT FLOOR MOUNTED, VITREOUS WHITE CHINA WATER CLOSET WITH ELONGATED BOWL. PROVIDE Z6000AV-HET MANUAL 1.28 GPF FLUSH VALVE AND Z5955SS-EL-STS WHITE TOILET SEAT.	1"	-	4"	2"	ZURN Z5665
UR-1	URINAL	TOP SPUD WHITE VIRTEOUS CHINA, Z6003AV-ULF 16 oz. pf MANUAL FLUSH VALVE, ZURN Z1221 URINAL CARRIER. REFER TO ARCHITECTURAL PLANS FOR INSTALLATION HEIGHT.	3/4"	-	2"	1-1/2"	ZURN Z5755-U
L-1	LAVATORY (ADA)	20" X 17" SELF RIMMING 4" CENTER SET LAVATORY. PROVIDE ZURN Z86500-XL METERING FAUCET, WILKINS ZW3870XLT THERMOSTATIC MIXING VALVE, GRID STRAINER, ANGLE STOPS, P-TRAP AND PLUMBEREX MODEL 2003W UNDERSINK TRAP AND SUPPLY PROTECTION.	1/2"	1/2"	2"	1-1/2"	ZURN Z5114
L-2	LAVATORY (ADA)	19" X 17" WALL HUNG 4" CENTER SET LAVATORY. PROVIDE ZURN Z86500-XL METERING FAUCET, WILKINS ZW3870XLT THERMOSTATIC MIXING VALVE, GRID STRAINER, ANGLE STOPS, P-TRAP AND PLUMBEREX MODEL 2003W UNDERSINK TRAP AND SUPPLY PROTECTION.	1/2"	1/2"	2"	1-1/2"	ZURN Z5354
S-1	SINK	17.5" X 19" SINGLE BOWL DROP IN 18 GAUGE STAINLESS STEEL SINK WITH 3 HOLE 4" ON CENTER FAUCET LEDGE. PROVIDE JUST J-1174-KS FAUCET, BASKET STRAINER, ANGLE STOPS, AND P-TRAP.	1/2"	1/2"	2"	1-1/2"	JUST SLF-17519-A-GR
S-2	SINK	15" X 15" SINGLE BOWL DROP IN 18 GAUGE STAINLESS STEEL SINK WITH 3 HOLE 4" ON CENTER FAUCET LEDGE. PROVIDE JUST J-1174-KS FAUCET, BASKET STRAINER, ANGLE STOPS, AND P-TRAP.	1/2"	1/2"	2"	1-1/2"	JUST SFL-1515-A-GR
WCO	WALL CLEANOUT	WALL CLEANOUT, DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREAD PLUG, AND ROUND, SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW.	-	-	2"	-	ZURN Z1441

PIPING MATERIAL SCHEDULE

SERVICE	SIZE	PIPE MATERIAL	JOINTS	FITTINGS	NOTES
DOMESTIC COLD AND HOT WATER (BELOW GRADE)	ALL	SOFT DRAWN TYPE K COPPER TUBING OR APPROVED EQUAL	LEAD FREE SOLDER	WROUGHT COPPER	PROTECT PIPING UNDER PENETRATING CONCRETE WITH POLYETHYLENE SLEEVES, NO FITTINGS UNDER CONCRETE.
DOMESTIC COLD AND HOT WATER (ABOVE GRADE)	ALL	HARD DRAWN TYPE L COPPER PIPE OR APPROVED EQUAL	LEAD FREE SOLDER	WROUGHT COPPER	
SANITARY WASTE AND VENT - WHERE ALLOWED	ALL	SCH. 40 PVC OR ABS OR APPROVED EQUAL	SOLVENT WELD	MATCH PIPE	ASTM D-2661-78 ASTM D-2664-80 ASTM D-2665-82
SANITARY WASTE AND VENT - WHERE REQUIRED	ALL	CAST IRON	NO-HUB	MATCH PIPE	DOMESTIC MANUFACTURED CAST IRON PRODUCTS ONLY.
SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.					

SHEET INDEX

SHEET NUMBER	SHEET TITLE	100% CD 04-25-2016		
P0.01	GENERAL INFORMATION AND SCHEDULES	●		
P0.02	PLUMBING DEMO FLOOR PLAN	●		
P1.01	PLUMBING FLOOR PLAN	●		

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SHEET CONTENTS:
GENERAL INFORMATION AND SCHEDULES

DATE:
APRIL 25, 2016

JOB NO:
16323.00

SHEET:
P0.01

GENERAL NOTES:

1. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START.
2. COORDINATE ALL PLUMBING WORK FOR POTENTIAL CONFLICTS WITH OTHER TRADES.
3. UNLESS OTHERWISE NOTED ALL PLUMBING EQUIPMENT SHALL REMAIN.

KEY NOTES: (#)

1. REMOVE EXISTING WATER CLOSETS AND LAVATORIES IN THIS RESTROOM. PREPARE WASTE, VENT AND WATER PIPING FOR NEW FIXTURES TO BE INSTALLED.
2. REMOVE EXISTING WATER CLOSETS, URINALS AND LAVATORIES IN THIS RESTROOM. PREPARE WASTE, VENT AND WATER PIPING FOR NEW FIXTURES TO BE INSTALLED.
3. REMOVE EXISTING SINK. PREPARE WASTE, VENT AND WATER PIPING FOR NEW FIXTURES TO BE INSTALLED.
4. REMOVE EXISTING FIXTURE. REMOVE WATER PIPING BACK TO MAIN AND CAP. CUT WASTE PIPE BACK TO BELOW GRADE AND CAP. REMOVE VENT PIPING BACK TO MAIN AND CAP.

1 PLUMBING DEMO FLOOR PLAN
SCALE: 3/16" = 1'-0"

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SHEET CONTENTS:
PLUMBING DEMO FLOOR PLAN

DATE:
APRIL 25, 2016
JOB NO:
16323.00

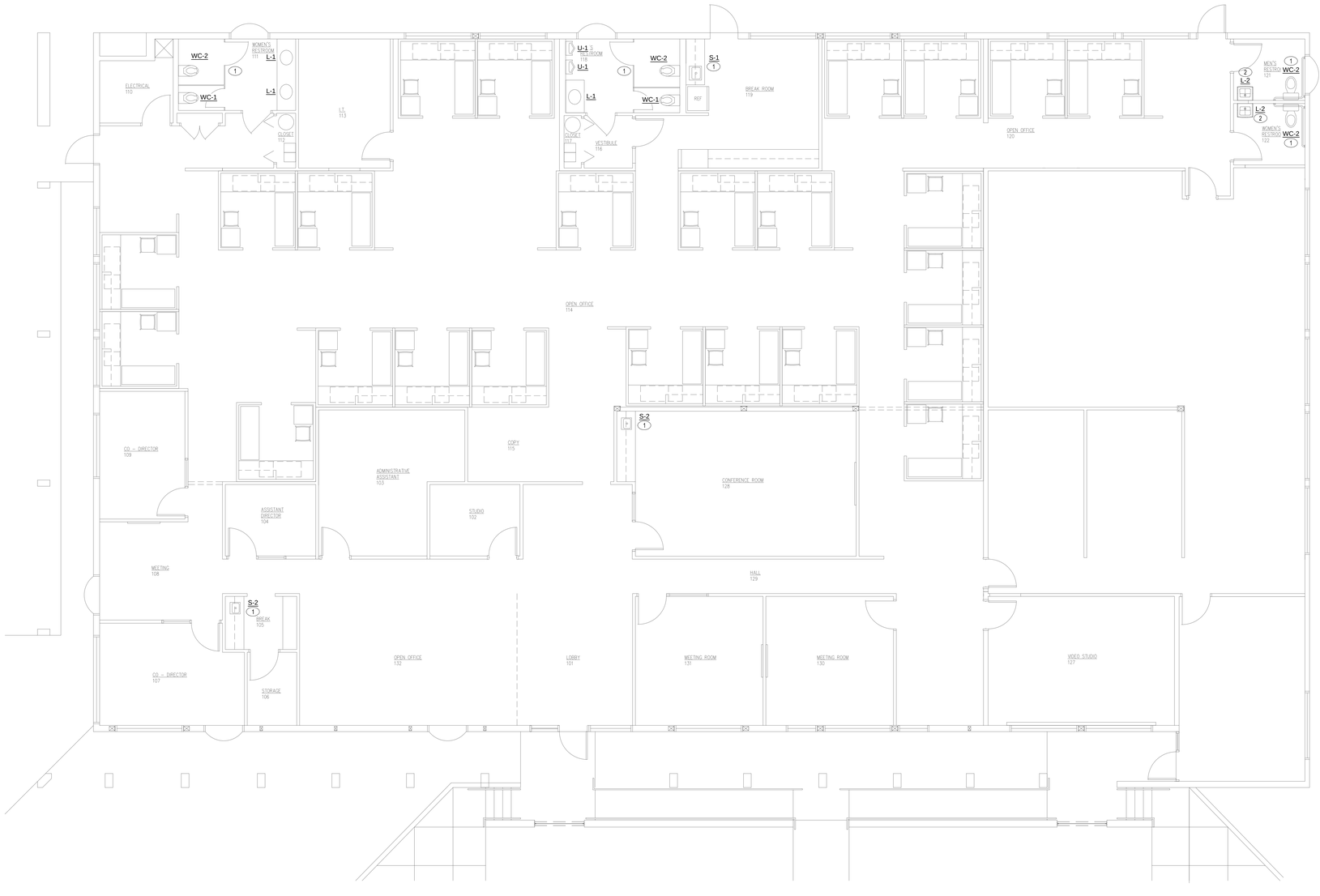
SHEET:
P0.02

GENERAL NOTES:

1. ALL PLUMBING FIXTURES SHALL BE WATER CONSERVATION TYPE AS MANDATED BY LOCAL BLDG. DEPT.
2. PRIOR TO DETAILING & INSTALLING PLUMBING AND FIRE PROTECTION PIPING COORDINATE EXACT ROUTING AND ELEVATIONS WITH MECHANICAL, ELECTRICAL AND FIRE SPRINKLER CONTRACTORS. PROVIDE WRITTEN CONFIRMATION THAT THIS COORDINATION HAS BEEN IMPLEMENTED PRIOR TO PROCEEDING WITH INSTALLATION OF PIPING.
3. ALL PLUMBING FIXTURES SHALL HAVE A TRAP INSTALLED AND SHALL BE PROPERLY VENTED IN ORDER TO MAINTAIN THE TRAP SEAL.

KEY NOTES: (#)

1. PROVIDE AND INSTALL NEW FIXTURE(S).
2. PROVIDE AND INSTALL NEW FIXTURE. EXTEND ROUGH-INS OF NEW FIXTURES TO EXISTING POINTS OF CONNECTION.



1 PLUMBING FLOOR PLAN
SCALE: 3/16" = 1'-0"

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SHEET CONTENTS:
PLUMBING FLOOR PLAN

DATE:
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1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOOK THROUGH ALL DRAWINGS ASSOCIATED WITH THIS PROJECT. WORK ASSOCIATED WITH THE ELECTRICAL CONTRACTOR'S TRADE MAY BE SHOWN ON OTHER DRAWINGS. ANY ADDITIONAL COST RESULTING FROM THE FAILURE TO INCLUDE THESE ITEMS SHOWN ON THE OTHER DRAWINGS WILL BE INCURRED BY CONTRACTOR.

2. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO ALLOW OTHER METHODS AND MATERIALS NOT REFLECTED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO REQUEST THE ENGINEER WAIVE THE STANDARDS TO ALLOW ALTERNATE MEANS AND METHODS PRIOR TO BEGINNING THE PROJECT. CONTRACT DOCUMENT REVISIONS TO ACCOMMODATE INSTALLED CONDITIONS, WITHOUT PRIOR APPROVAL, WILL RESULT IN ADDITIONAL DESIGN CHARGES TO THE CONTRACTOR.

3. ELECTRICAL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE NECA INSTALLATION STANDARDS TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.

4. ALL WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE CURRENTLY ADOPTED EDITION OF ALL APPLICABLE NATIONAL, STATE AND CITY CODES AND ORDINANCES.

5. ALL ELECTRICAL SYSTEM COMPONENTS SHALL BE LISTED OR LABELED BY UL OR OTHER RECOGNIZED TESTING FACILITY AS ALLOWED BY AUTHORITY HAVING JURISDICTION.

6. WHERE AN APPARENT DISCREPANCY EXISTS BETWEEN THE REQUIREMENTS OF THE GENERAL NOTES AND INFORMATION PORTRAYED IN THE ELECTRICAL DRAWINGS, THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF THE GREATER QUALITY OR QUANTITY.

7. CONTRACTOR SHALL VISIT JOB SITE PRIOR TO BID AND VERIFY EXISTING CONDITIONS.

8. CONTRACTOR SHALL INCLUDE IN BASE BID ALL COSTS REQUIRED FOR PERMITS AND INSPECTIONS.

9. CONTRACTOR SHALL VERIFY, WITH OWNER'S REPRESENTATIVE PRIOR TO SUBMITTING BID, ALLOWABLE WORKING HOURS, EMPLOYEE PARKING AREAS, MATERIAL DELIVERY, STORAGE REQUIREMENTS, DEMOLITION AND REMOVAL OF CONSTRUCTION DEBRIS, AS WELL AS DAILY CLEAN UP REQUIREMENTS. INCLUDE ALL COSTS IN BID FOR DUST BARRIERS, DUMPSTERS ETC. AS REQUIRED FOR THE DURATION OF THE PROJECT. PERFORM ALL WORK AS DIRECTED BY OWNER'S REPRESENTATIVE AND ARCHITECT.

10. ALL ELECTRICAL SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE ALL NECESSARY CORRECTIONS AT NO ADDITIONAL COST TO OWNER.

11. CONTRACTOR SHALL GUARANTEE ALL WORK AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. ALL DEFECTS SHALL BE PROMPTLY CORRECTED BY CONTRACTOR WITHOUT ADDITIONAL COST TO OWNER.

12. PROVIDE AS-BUILT DRAWINGS TO ARCHITECT. DRAWINGS SHALL INCLUDE ACCURATE CONDUIT AND DEVICE LOCATIONS DIMENSIONED FROM PERMANENT LANDMARKS SUCH AS BUILDING WALLS.

13. DO NOT SCALE ELECTRICAL DRAWINGS. VERIFY EXACT LOCATION OF ALL DEVICES, JUNCTION BOXES, LIGHTING FIXTURES, ETC. WITH ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS PRIOR TO INSTALLATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT AND OTHER EQUIPMENT REQUIRING ELECTRICAL CONNECTION PRIOR TO ROUGH-IN. EVERY OUTLET HEIGHT SHALL BE VERIFIED ON EACH WALL WITH THE INTERIOR PLANNING AND DESIGN DRAWINGS. COORDINATE WITH CABINET SHOP DRAWINGS TO ENSURE PROPER HEIGHT AND LOCATION WITH RESPECT TO MILLWORK, EQUIPMENT, ETC.

14. THESE DRAWINGS INDICATE THE FINISHED REQUIREMENTS FOR THE ELECTRICAL SYSTEMS, EQUIPMENT, LIGHTING FIXTURES, OUTLETS AND DEVICES. DUE TO STRUCTURAL CONDITIONS, MECHANICAL DUCT, PIPING CONFLICTS, OR OTHER LEGITIMATE REASONS, THE CONTRACTOR MAY DESIRE TO INSTALL THE WORK INDICATED IN A MANNER DIFFERENT FROM THAT SHOWN. SUCH CHANGES SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING. UPON APPROVAL, THE WORK SHALL BE PERFORMED AND THE AS-BUILT DRAWINGS SHALL BE REVISED TO ACCURATELY REFLECT THE WORK AS ACTUALLY INSTALLED.

15. ANY VARIANCE OR EXCEPTIONS THE THE DRAWINGS AND SPECIFICATIONS MUST BE REQUESTED AND APPROVED IN WRITING BY THE ENGINEER. WHERE UNAUTHORIZED CHANGES ARE FOUND, THE CONTRACTOR SHALL REMOVE THE INSTALLED WORK AND INSTALL ITS AS SHOWN ON THE DRAWINGS AT NO ADDITIONAL COST THE THE OWNER. COST SHALL INCLUDE ANY CUTTING , PATCHING, PAINTING AND REPAIR COST TO INSTALLED CEILINGS, WALLS ETC. AS REQUIRED FOR CORRECTING THE DEFICIENCY.

16. RACEWAY SYSTEMS ARE SHOWN DIAGRAMMATICALLY. ACTUAL LOCATION AND ROUTING OF ALL, SHALL BE DETERMINED BY CONTRACTOR TO SUIT FIELD CONDITIONS.

17. RACEWAYS SHALL BE INSTALLED CONCEALED WHENEVER POSSIBLE. RACEWAYS INSTALLED EXPOSED (AS APPROVED BY ENGINEER IN WRITING PRIOR TO ROUGH-IN) SHALL BE ROUTED OUT OF PUBLIC VIEW AS MUCH AS POSSIBLE. RACEWAYS SHALL BE RUN PARALLEL WITH, OR AT RIGHT ANGLE TO WALLS.

18. PROVIDE UL APPROVED EXPANSION FITTINGS WHERE RACEWAYS CROSS BUILDING EXPANSION JOINTS. PROVIDE BONDING JUMPER(S) SIZED PER CODE WHERE REQUIRED. PROVIDE ALL FITTINGS REQUIRED FOR A COMPLETE INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXPANSION JOINT LOCATION(S).

19. CONTRACTOR SHALL PROVIDE ALL RACEWAY SYSTEMS INDICATED ON THE DRAWING PER NEC REQUIREMENTS AND GENERAL NOTES. ANY DEVIATION FROM THE WIRING METHODS INDICATED SHALL BE ALLOWED ONLY BY SPECIFIC WRITTEN APPROVAL FROM EITHER THE ARCHITECT, ENGINEER OR OWNER. CONTRACTOR'S BID SHALL INCLUDE ALL COSTS FOR RACEWAY SYSTEMS AS SPECIFIED UNLESS SPECIFIC WRITTEN APPROVAL FOR AN ALTERNATIVE WIRING METHOD IS OBTAINED FROM EITHER THE ARCHITECT, ENGINEER OR OWNER AND IS SUBMITTED AS PART OF CONTRACTOR'S FORMAL BID PROPOSAL.

20. PRIOR TO INSTALLATION, CONTRACTOR SHALL REVIEW THE COMPLETE SET OF CONSTRUCTION DOCUMENTS FOR CONFLICTS WITH OTHER TRADES. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICT DURING INSTALLATION. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS IN EQUIPMENT LOCATION AND ROUTING AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

21. CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY CUT AND PATCH EXISTING CONSTRUCTION AS REQUIRED TO INSTALL NEW ELECTRICAL WORK. ALL PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP AND FINISH AS THE EXISTING WORK AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK TO THE SATISFACTION OF THE ARCHITECT.

22. ALL ELECTRICAL EQUIPMENT SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS TO ACCOMMODATE QUANTITY AND SIZE OF CONDUCTORS REQUIRED. CONTRACTORS SHALL PROVIDE EQUIPMENT WITH OVERSIZED ENCLOSURES WHERE REQUIRED.

23. COORDINATE ELECTRICAL REQUIREMENTS FOR ALL PLUMBING AND MECHANICAL EQUIPMENT WITH FINAL CONTRACTOR SELECTION. THE CONTRACTOR SHALL SIZE DISCONNECTS BASED UPON CIRCUIT BREAKER RATINGS AND PROVIDE FUSING AS REQUIRED PER EQUIPMENT MANUFACTURER RECOMMENDATIONS AND U.L. LISTING REQUIREMENT

24. SIZING OF MOTOR-RELATED ELECTRICAL COMPONENTS, INCLUDING FEEDER AND/ OR BRANCH CIRCUITS (WIRE AND CONDUIT) AND OVERCURRENT PROTECTION (BREAKER AND/ OR FUSES) IS BASED ON RATINGS INDICATED IN THE CONTRACT DOCUMENTS AS WELL AS NEC APPROXIMATED LOADS FOR A GIVEN MOTOR HORSEPOWER, VOLTAGE AND PHASE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL MOTOR AND APPLIANCE RATING AND LOADS. CONTRACTOR TO PROVIDE CORRECTLY SIZED MOTOR OVERLOAD ELECTRICAL COMPONENTS BASED ON NAMEPLATE RATING. REFLECT ALL CHANGES IN THE AS-BUILT DRAWINGS.

25. THE ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN, SHALL VERIFY ALL HVAC AMPERAGES, PHASES AND VOLTAGES AGAINST PLAN REQUIREMENTS AND NOTIFY ENGINEER/ARCHITECT OF ANY DISCREPANCIES. FAILURE TO VERIFY AND NOTIFY ENGINNER/ARCHITECT PRIOR TO ROUGH-IN SHALL RESULT IN THE ELECTRICAL CONTRACTOR ASSUMING RESPONSIBILITY FOR DESIGN AND INSTALLATION REQUIREMENTS.

26. THE ELECTRICAL CONTRACTOR SHALL INSURE FINAL COORDINATION OF THE MANUFACTURERS RECOMMENDED FUSE SIZES FOR THE INSTALLED MECHANICAL EQUIPMENT WITH THE SIZE DISCONNECT PRIOR TO OR DURING ROUGH-IN. ADVISE ENGINEER IF CHANGES IN THE FINAL SELECTION OF MECHANICAL EQUIPMENT HAVE IMPACTED DISCONNECT SWITCH, BREAKER, OR CONDUCTOR SIZES.

27. CONTRACTOR SHALL ENGAGE THE SERVICES FOR A STATE LICENSED FIRE ALARM MANUFACTURER/INSTALLER TO PREPARE ALL DESIGN DRAWINGS AND CALCULATIONS REQUIRED FOR SYSTEM APPROVAL BY THE AUTHORITY HAVING JURISDICTION. SUBMIT ALL PLANS AND PROVIDE ALL PERMITS REQUIRED FOR A COMPLETE AND OPERABLE APPROVED LIFE SAFETY SYSTEM.

28. ALL PENETRATIONS OF FIRE RESISTIVE FLOORS OR WALLS SHALL BE PROTECTED BY MATERIALS AND INSTALLATION DIAGRAMS THAT CONFORM TO UL LISTING FOR "THROUGH-PENETRATION FIRE STOP SYSTEMS".

29. WHERE MOTORS ARE INSTALLED IN SUSPENDED CEILINGS, CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH IN SUSPENDED CEILING WITHIN REACH FROM ACCESS POINT.

30. VERIFY DEVICE COLOR AND MOUNTING ORIENTATION (VERTICAL OR HORIZONTAL) WITH ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS PRIOR TO ORDERING ANY EQUIPMENT AND PROVIDE DEVICES AS REQUIRED. UNLESS NOTED OTHERWISE, DEVICES AND DEVICE PLATES SHALL BE WHITE IN COLOR.

31. PROVIDE TYPED UPDATED PANEL DIRECTORY TO BE MOUNTED ON INSIDE OF ALL PANEL DOOR COVERS. DIRECTORY SHALL REFLECT ALL ADDITIONS OR MODIFICATIONS TO EXISTING PANELS AND SHALL REFLECT ACTUAL "AS-BUILT" CONDITIONS.

32. ALL NEW PANELBOARDS AND SWITCHBOARDS SHALL BE OF THE SAME MANUFACTURER AND HAVE LOCKING DOORS AND BE KEYED THE SAME U.N.O.

33. UPON COMPLETION OF THE INSTALLATION OF LIFE SAFETY SYSTEM WIRING AND DEVICES, A PERFORMANCE TEST OF THE ENTIRE LIFE SAFETY SHALL BE PERFORMED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.

34. ALL EQUIPMENT ELECTRICAL TERMINATIONS TO UNDERGO A TORQUE TEST. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR MANUFACTURER'S RECOMMENDED TORQUE DOCUMENTATION AND TOOLS TO PERFORM TORQUE TEST.

35. FLOOR MOUNTED ELECTRICAL EQUIPMENT SHALL BE MOUNTED ON A 4" HIGH CONCRETE PAD.

36. INSTALL TRANSFORMER FOLLOWING MANUFACTURER'S RECOMMENDATIONS FOR VENTILATION CLEARANCES.

37. FURNISH AND INSTALL A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

38. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER, ARCHITECT AND ENGINEER AS REQUIRED SHUT-DOWNS OR TIE-INS RELATING TO THESE SYSTEMS. REQUESTS FOR SHUTDOWNS SHALL BE SUBMITTED IN WRITING AT LEAST ONE WEEK IN ADVANCE FOR APPROVAL BY THE OWNER.

39. ALL EXPOSED RACEWAYS SHALL BE PAINTED TO MATCH ADJACENT SURFACES.

40. THE ELECTRICAL CONTRACTOR ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR ANY "VALUE ENGINEERING" OF THE MATERIALS, SPECIFICATIONS AND DESIGN OF THIS PROJECT, INCLUDING ANY AND ALL COST FOR ANY REVISIONS TO THE CONTRACT DOCUMENTS REQUIRED AS A RESULT IF THE "VALUE ENGINEERING".

41. PROPOSED ALTERNATE LIGHT FIXTURES SHALL BE SUBMITTED WITH A PHOTOMETRIC STUDY SHOWING COMPLIANCE WITH ALL APPLICABLE LIGHTING CODES AND ORDINANCES.

42. AFTER COMPLETION OF THE INSTALLATION, THE ENTIRE ELECTRICAL SYSTEM SHALL BE THOROUGHLY CLEANED. REMOVE ALL FOREIGN MATERIAL, DUST, PAINT, OIL GREASE, UNNEEDED LABELS AND STICKERS FROM EQUIPMENTS. REMOVE ALL DEBRIS ACCUMULATED DURING CONSTRUCTION.

43. ALL 120V AND 277V DEVICES SHALL HAVE A DEDICATED NEUTRAL.

ELECTRICAL LEGEND

NOTE: NOT ALL SYMBOLS CONTAINED HEREIN MAY APPEAR IN THESE DRAWINGS.

EXT	DEMO	NEW	DEFINITION
			PANELBOARD SURFACE MOUNTED
			PANELBOARD FLUSH MOUNTED
			SWITCHBOARD
TC	TC	TC	TERMINAL CABINET
T	T	T	TRANSFORMER
P	P	P	PULLBOX
			MOTOR STARTER
			COMBINATION MOTOR STARTER
			COMBINATION MOTOR STARTER VENDOR FURNISHED
F	F	F	DISCONNECT SWITCH "F" INDICATES FUSIBLE
			DISCONNECT SWITCH VENDOR FURNISHED
			CONTACTOR
			CONTACTOR VENDOR FURNISHED
TTB	TTB	TTB	TELEPHONE TERMINAL BOARD 4 X 8 X 3/4" FIRE TREATED PLYWOOD
TTC	TTC	TTC	TELEPHONE TERMINAL CABINET
A	A	A	FLUORESCENT FIXTURE - LETTER DENOTES TYPE (LOWER CASE LETTER DENOTES SWITCHING), NUMBER DENOTES CIRCUIT
A	A	A	WALL MOUNTED FIXTURE (FLUORESCENT SHOWN) - LETTER DENOTES TYPE
A	A	A	HID OR INCANDESCENT FIXTURE - LETTER DENOTES TYPE
A	A	A	FLUORESCENT STRIP FIXTURE - LETTER DENOTES TYPE
A	A	A	TRACK LIGHTING - LETTER DENOTES TYPE
A	A	A	EMERGENCY LIGHTING UNIT - LETTER DENOTES TYPE
A	A	A	EXIT FIXTURE - SHADED AREA DENOTES LIGHTED FACE, ARROWS DENOTE DIRECTION - LETTER DENOTES TYPE
A	A	A	EMERGENCY OR NIGHT LIGHT CONNECTED FIXTURE (FLUORESCENT SHOWN) - LETTER DENOTES TYPE
A	A	A	POLE MOUNTED HID AREA LIGHT - LETTER DENOTES TYPE
			SPORTS FIELD POLE ASSEMBLY
			SINGLE RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
			DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
			FLOOR MOUNTED DUPLEX RECEPTACLE
			QUADRUPLEX RECEPTACLE 18" AFF UNO
			ISOLATED GROUND TYPE (ORANGE) DUPLEX RECEPTACLE AT 18" AFF UNO.
			ISOLATED GROUND TYPE (ORANGE) QUADRUPLEX RECEPTACLE AT 18" AFF UNO.
C	C	C	COUNTER HEIGHT RECEPTACLE (VERIFY HEIGHT)
			GFI DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
			SWITCHED DUPLEX RECEPTACLE 18" AFF UNLESS NOTED OTHERWISE
			ELECTRIC SHEET NOTE DESIGNATION
AHU 2	AHU 2	AHU 2	MECHANICAL EQUIPMENT CROSS REFERENCE
2	2	2	SPECIAL PURPOSE RECEPTACLE - NUMBER REFERS TO RECEPTACLE SCHEDULE
C	C	C	CLOCK OUTLET
24	24	24	MULTIOUTLET ASSEMBLY - ARROW HEADS INDICATE EXTENT, NUMBERS INDICATE SPACING IN INCHES
S	S	S	SINGLE POLE SWITCH 48" AFF UNO
S_3	S_3	S_3	THREE WAY SWITCH 48" AFF UNO
S_4	S_4	S_4	FOUR WAY SWITCH 48" AFF UNO
S_K	S_K	S_K	KEY OPERATED SWITCH
S_D	S_D	S_D	DIMMER OPERATED SWITCH
S_P	S_P	S_P	SWITCH WITH PILOT LIGHT
S_M	S_M	S_M	MOTION SENSING SWITCH
			CONTROL STATION
			TELEPHONE OUTLET 18" AFF UNO
			PAY TELEPHONE OUTLET 48" AFF UNO
V	V	V	FLOOR MOUNTED TELEPHONE OUTLET
			COMPUTER OUTLET OR SPECIAL PURPOSE COMMUNICATIONS
R	R	R	RADIO OUTLET
PC	PC	PC	PHOTOELECTRIC CELL
TC	TC	TC	TIME CLOCK
			BRANCH CIRCUIT CONSISTING OF 2#12 IN MINIMUM SIZE CONDUIT NOT INCLUDING GROUND WIRE
			HOME RUN TO PANELBOARD OR DEVICE - NUMBER OF ARROW HEADS INDICATES NUMBER OF CIRCUITS
			BRANCH CIRCUIT - SHORT SLASHES INDICATE NUMBER OF PHASE OR SWITCH LEGS, LONG SLASHES INDICATE NUMBER OF NEUTRALS, LONG SLASH W/ A DOT INDICATES A SEPARATE ISOLATED GROUND WIRE.
			CONDUIT IN SLAB OR UNDERGROUND
			CONDUIT SEALING FITTING (USED FOR CLARITY ONLY)
			INTERRUPTER SWITCH
			FUSE
			CIRCUIT BREAKER
			DRAWOUT CIRCUIT BREAKER

EXT	DEMO	NEW	DEFINITION
M	M	M	METERING
KWH D	KWH D	KWH D	KILOWATT HOUR DEMAND METER
			TRANSFORMER
			MOTOR OUTLET
G	G	G	GENERATOR
			GROUND ROD
SV	SV	SV	SOLENOID VALVE
S	S	S	SPEAKER
M	M	M	MOTION DETECTOR
TV	TV	TV	CCTV SURVEILLANCE CAMERA OUTLET
			TELEVISION ANTENNA OUTLET
			PULL STATION
			FLOW SWITCH
			TAMPER SWITCH
HORN	HORN	HORN	HORN
			HORN / STROBE
			STROBE
FACP	FACP	FACP	FIRE ALARM CONTROL PANEL
FAA	FAA	FAA	FIRE ALARM ANNUNCIATOR
DH	DH	DH	DOOR HOLDER
S X	S X	S X	SMOKE DETECTOR LETTER (X) INDICATES TYPE. D DUCT MOUNT I IONIZATION P PHOTOELECTRIC
H X	H X	H X	HEAT DETECTOR LETTER (X) INDICATES TYPE. R RATE OF RISE F FIXED TEMPERATURE
F_{20}	F_{20}	F_{20}	FIREMAN PHONE
SD	SD	SD	SMOKE /FIRE DAMPER
FS	FS	FS	CONTROL DEVICE. LETTERS INDICATE TYPE: FLS = FLOAT SWITCH, FS = FLOW SWITCH FTS = FOOT SWITCH, LS = LIMIT SWITCH PE = PNEUMATIC SWITCH, PS = PRESSURE SWITCH TS = TEMPERATURE SWITCH
T	T	T	THERMOSTAT
J	J	J	JUNCTION BOX (USED FOR CLARITY ONLY)
A	A	A	AMMETER
AS	AS	AS	AMMETER SWITCH
V	V	V	VOLTMETER
VS	VS	VS	VOLTMETER SWITCH
#	#	#	RELAY OR CONTROL DEVICE. NUMBER REPRESENTS STANDARD DEVICE FUNCTION
ST	ST	ST	SHUNT TRIP
GFI	GFI	GFI	GROUND FAULT INTERRUPTER

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR	J-BOX	JUNCTION BOX
AFG	ABOVE FINISHED GRADE	KVA	KILOVOLT AMPS
AL	ALUMINUM	KW	KILOWATT
BKR	BREAKER	LTG	LIGHTING
C	CONDUIT	NTS	NOT TO SCALE
CKT	CIRCUIT	PNL	PANEL
C.O.	CONDUIT ONLY	PWR	POWER
CU	COPPER	TYP	TYPICAL
DWG	DRAWING	UNO	UNLESS NOTED OTHERWISE
ELEC	ELECTRICAL	V	VOLTS
EXT	EXISTING	VA	VOLT AMPS
GFI	GROUND FAULT INTERRUPT	WP	WEATHER PROOF
GND	GROUND	XFMR	TRANSFORMER

SHEET INDEX

SHEET NUMBER	SHEET TITLE	30% DD 02-21-2016	100% CD 04-25-2016	
E0.01	ELECTRICAL LEGEND, ABBREVIATIONS SHEET INDEX	●	●	
E0.02	IECC	●	●	
E0.03	LIGHTING DEMOLITION PLAN	●	●	
E0.04	POWER DEMOLITION PLAN	●	●	
E0.05	LOW-VOLTAGE DEMOLITION PLAN	●	●	
E1.01	LIGHTING PLAN	●	●	
E2.01	POWER PLAN	●	●	
E3.01	COMMUNICATION PLAN	●	●	
E4.01	ENLARGED PLANS AND DETAILS	●	●	
E5.01	ONE LINE DIAGRAM AND SCHEDULES	●	●	

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SHEET CONTENTS:
ELECTRICAL LEGEND, ABBREVIATIONS SHEET INDEX

DATE:
APRIL 25, 2016

JOB NO:
16323.00

SHEET:
E0.01

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.1 [EL22][3]	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.1 [EL23][3]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.2 [EL15][3]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.3 [EL16][3]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.3 [EL17][3]	Sleeping units have at least one master switch at the main entry door that controls wired luminaires and switched receptacles.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.2.2 [EL18][3]	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.3 [EL20][3]	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.2.3 [EL21][3]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.3 [EL4][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.3 [EL19][3]	Fluorescent luminaires with odd numbered lamp configurations that are with 10 feet center to center (if recess mounted) or are within 1 foot edge to edge (if pendant or surface mounted) shall be tandem wired.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.4 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3 [EL8][1]	Additional interior lighting power allowed for special functions per the approved ligting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COM*check* Software Version 4.0.2.8

Inspection Checklist

Energy Code: 2012 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COM*check* Software Version 4.0.2.8

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2012 IECC
Project Title: UNLV MOB
Project Type: New Construction

Construction Site: LAS VEGAS, NV
Owner/Agent: UNLV
Designer/Contractor: MARIO AL HADDAD, TJK CONSULTING ENGINEERS

Additional Efficiency Package

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Admin Office (Office)	9633	0.85	8188
		Total Allowed Watts =	8188

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Admin Office (Office)				
LED 1: F1: 2X2 LED 4000K: LED Other Fixture Unit 40W:	1	25	39	975
LED 2: F2: 2X4 LED 4000K: LED Other Fixture Unit 36W:	1	130	35	4550
LED 3: F3: 6" DOWN LIGHT 2K LM: LED PAR 18W:	1	18	18	324
LED 4: F4: 6" DOWN LIGHT 1K LM: LED Other Fixture Unit 36W:	1	7	35	245
LED 5: F5: 4' LED STRIP 4000K: LED Linear 33W:	1	2	33	66
		Total Proposed Watts =		6160

Interior Lighting PASSES: Design 25% 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 2012 IECC requirements in COM*check* Version 4.0.2.8 and to comply with the mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.3,C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.2 [FI18][3]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C408.3 [FI33][3]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [FI34][3]	Efficient HVAC performance, efficient lighting system, or on-site supply of renewable energy consistent with what is shown the approved plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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SHEET CONTENTS:
IECC

DATE:
APRIL 25, 2016

JOB NO:
16323.00

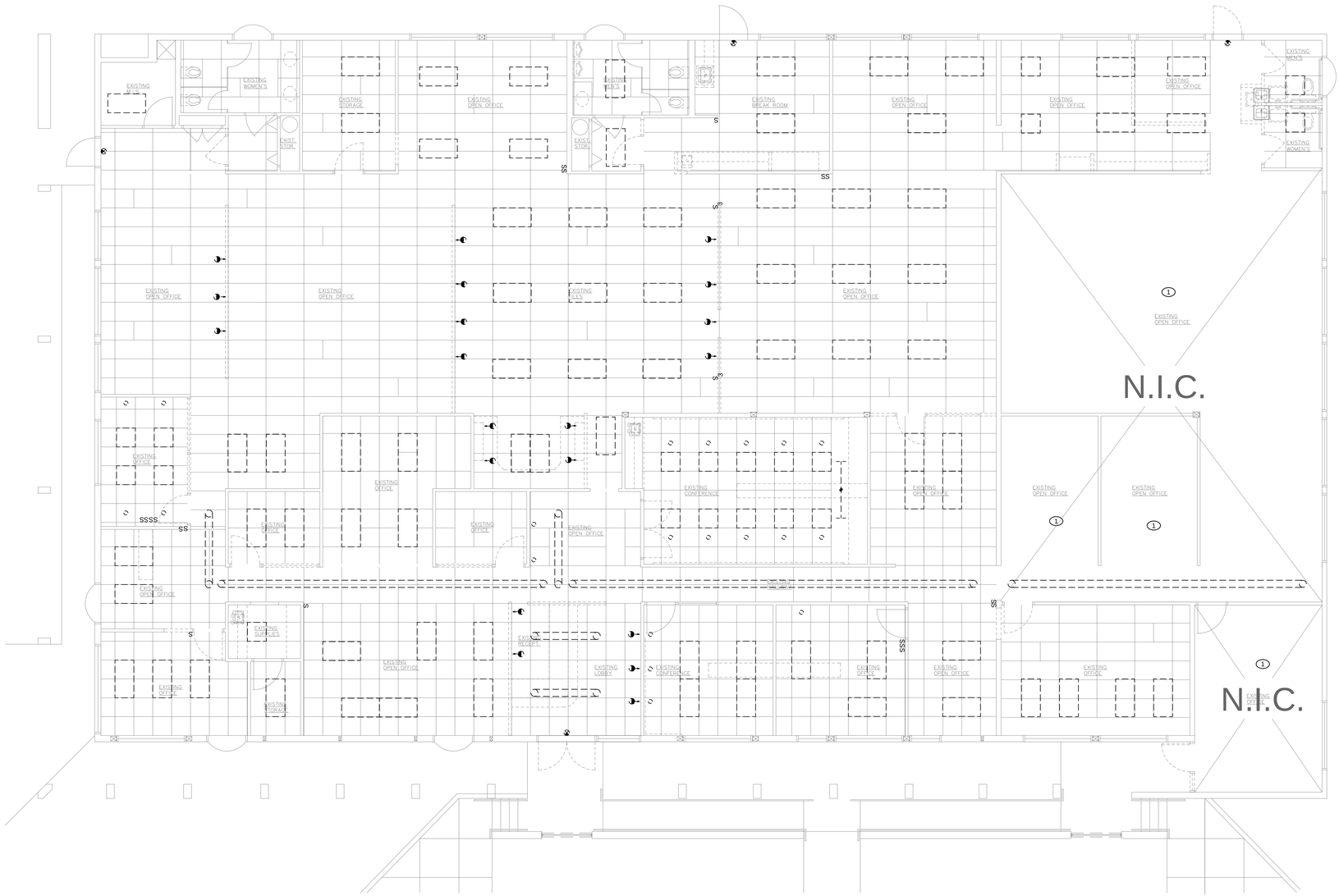
SHEET:
E0.02

DEMOLITION GENERAL NOTES:

1. ALL CONDUIT AND WIRING FROM REMOVED DEVICES SHALL BE REMOVED BACK TO SOURCE.
2. ALL LIGHT FIXTURES IN THE BUILDING TO BE REMOVED AND DISPOSED.
3. CONDUIT IN INACCESSIBLE LOCATIONS SHALL BE CAPPED OFF AND TO REMAIN IN PLACE.
4. WIRING SHALL NOT BE ABANDONED IN INACCESSIBLE CONDUITS.
5. ALL SWITCHING AND CONTROL DEVICES TO BE DEMOLISHED. PATCH EXISTING OPENING THAT ARE NOT REUSED.

DEMOLITION SHEET NOTES: (#)

1. EXISTING CIRCUITS TO BE INTERCEPTED AND EXTENDED TO NEW PANEL AS INDICATED ON E1.01.



1 LIGHTING DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

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TJK # 15122

PROFESSIONAL ENGINEER-STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-16
ELECTRICAL
No. 13345

REVISIONS:

UNLV
MARYLAND ADMINISTRATIVE BUILDING I
TENANT IMPROVEMENT

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CONSULTANTS:

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PHONE: (702) 871-3821

PROJECT:
UNLV MARYLAND ADMINISTRATIVE BUILDING I TENANT IMPROVEMENT

SHEET CONTENTS:
LIGHTING DEMOLITION PLAN

DATE:
APRIL 25, 2016

JOB NO:
16323.00

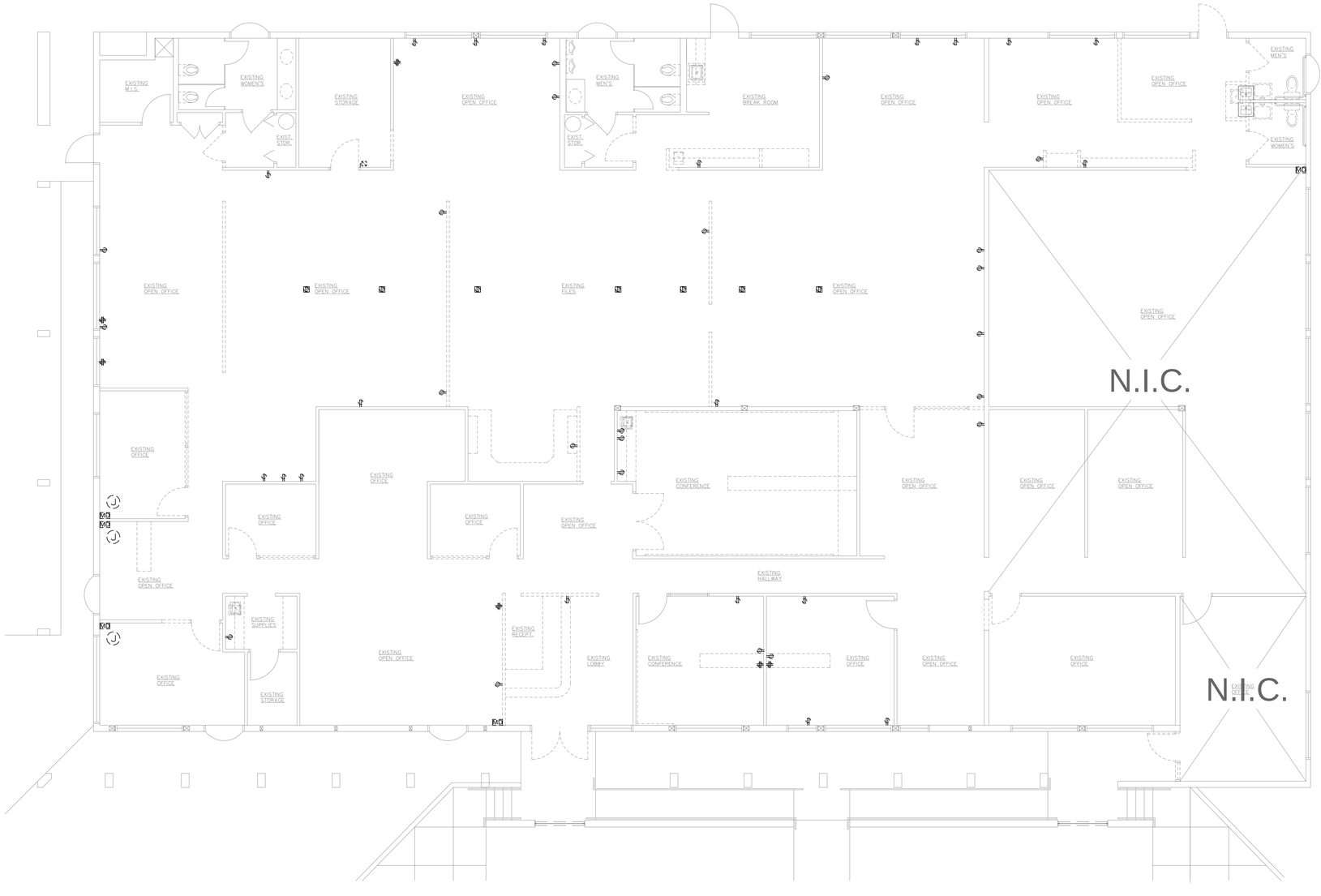
SHEET:
E0.03

DEMOLITION GENERAL NOTES:

1. ALL CONDUIT AND WIRING FROM REMOVED DEVICES SHALL BE REMOVED BACK TO SOURCE.
2. ALL RECEPTACLES TO BE REMOVED. REMOVE J BOXES, CONDUITS AND WIRES BACK TO SOURCE.
3. CONDUIT IN INACCESSIBLE LOCATIONS SHALL BE CAPPED OFF AND TO REMAIN IN PLACE.
4. WIRING SHALL NOT BE ABANDONED IN INACCESSIBLE CONDUITS.
5. PROVIDE UPDATED, TYPED PANEL DIRECTORIES FOR ALL PANEL BOARDS WITH CIRCUITS MODIFIED, ADDED OR REMOVED.

DEMOLITION KEY NOTES: (#)

1. PROTECT IN PLACE EXISTING DEVICES TO REMAIN.
2.



1 POWER DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

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SHEET CONTENTS:
POWER DEMOLITION PLAN

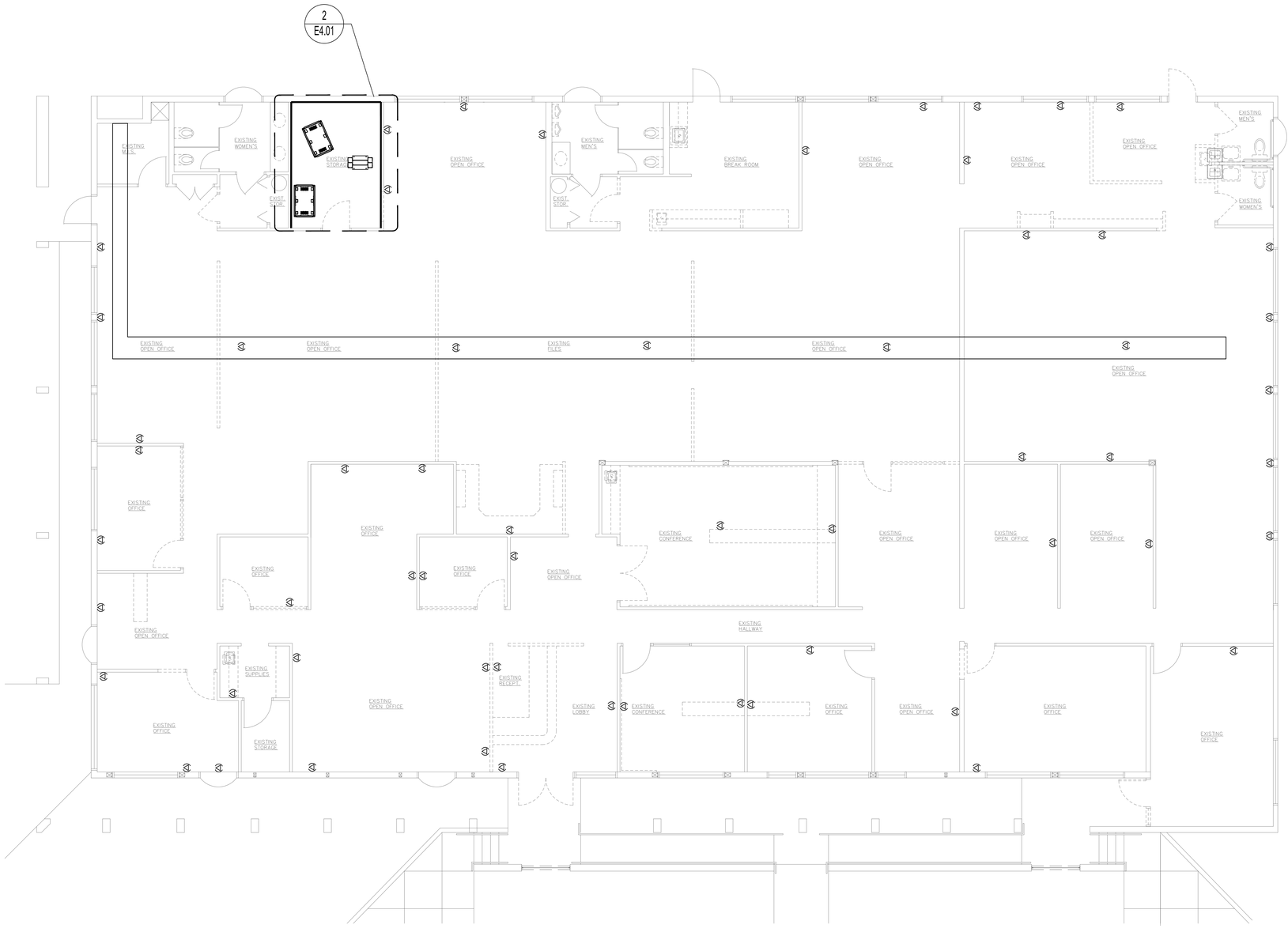
DATE:
APRIL 25, 2016

JOB NO:
16323.00

SHEET:
E0.04

DEMOLITION GENERAL NOTES:

1. ALL EXISTING DATA OUTLETS SHOWN ARE TO BE REMOVED UNLESS NOTED OTHERWISE. WHERE EXISTING DATA OUTLETS ARE INSTALLED IN SURFACE MOUNTED WIRE MOLD, REMOVE WIRE MOLD AND CABLING. WHERE EXISTING DATA OUTLETS ARE INSTALLED RECESSED IN WALL, REMOVE EXISTING CABLING AND PROVIDE BLANK COVER PLATE.ALSO SEE GENERAL NOTE #4 FOR ADDITIONAL WORK.
2. COORDINATE WITH UNLV ON ALL NETWORK OUTAGES AT LEAST 48 HOURS BEFORE THE CHANGE IS TO OCCUR.
3. THE CONTRACTOR SHALL VISIT THE SITE IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND TO PERFORM ALL REQUIRED STUDIES DEEMED NECESSARY.
4. ALL REPAIRING PATCHING AND PAINTING OF ANY WALL MODIFIED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



1 LOW-VOLTAGE DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

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SHEET CONTENTS:
LOW-VOLTAGE DEMOLITION PLAN

DATE:
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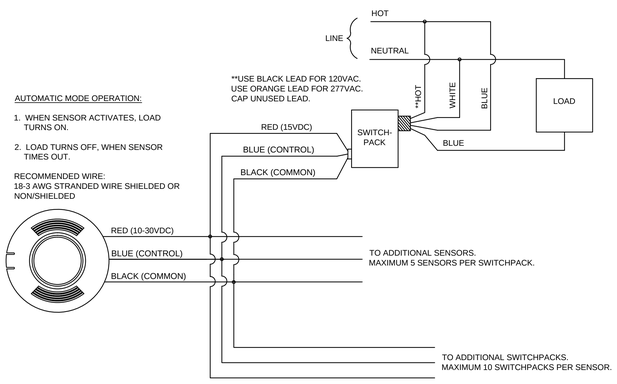
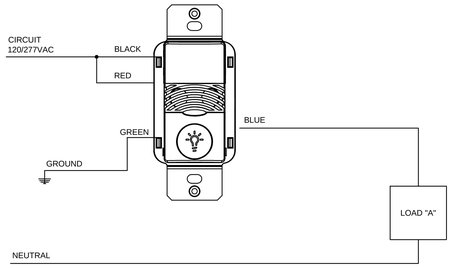
16323.00

SHEET:
E0.05



1 E1.01 CEILING SENSOR WIRING DIAGRAM

SCALE: NONE



2 E1.01 WALL SWITCH SENSOR WIRING DIAGRAM

SCALE: NONE

ONW AND VNW MANUAL MODE

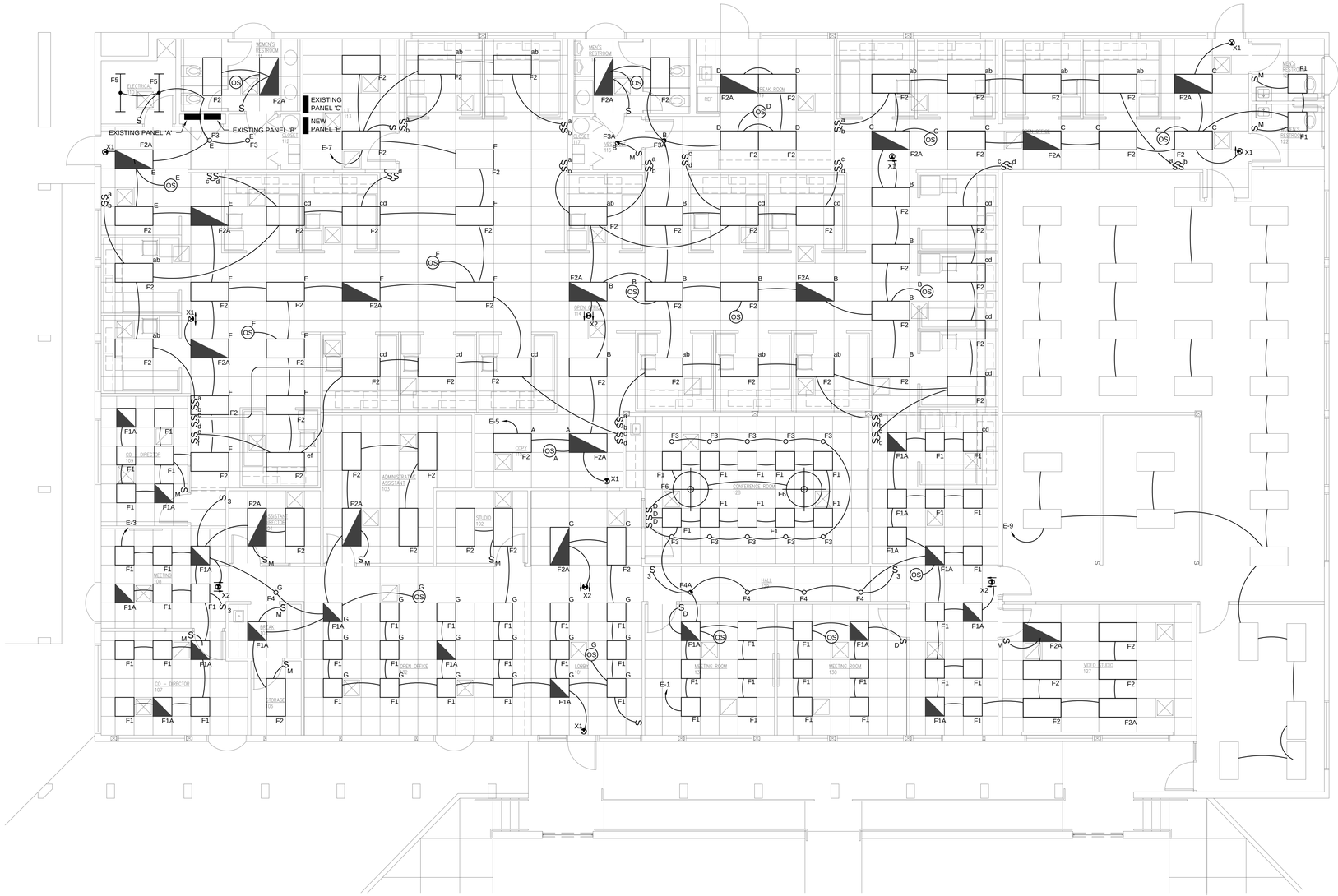
1. SWITCHES IS REQUIRED TO TURN LOADS ON.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT OR WITH SWITCHES.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, LOADS WILL NOT TURN ON.

ONW - AUTOMATIC MODE

1. WHEN SENSOR ACTIVATES LOADS TURN ON.
2. SWITCHES CAN BE USED TO TURN LOADS ON OR OFF.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT,LOADS WILL NOT ON.

LIGHTING GENERAL NOTES:

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. VERIFY EXACT CEILING CONSTRUCTION WITH ARCHITECTURAL REFLECTED CEILING PLAN AND PROVIDE LIGHTING FIXTURES WITH ALL NECESSARY MOUNTING HARDWARE.
3. COORDINATE EXACT LIGHTING FIXTURE LOCATIONS WITH MECHANICAL EQUIPMENT AND DUCT WORK PRIOR TO ROUGH-IN.
4. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROTECTED FROM THE SPREAD OF FIRE WITH AN APPROVED FIRESTOP SYSTEM EQUAL OR GREATER THAN THE FIRE RATING OF THE WALL.
5. ALL WALL SWITCHES SHALL BE RECESSED IN WALLS.
6. ALL CONDUIT/CABLE INSTALLATION SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
7. PROVIDE UNSWITCHED CONDUCTOR FOR ALL EMERGENCY BALLAST TO MAINTAIN CHARGING CIRCUIT REGARDLESS OF ON/OFF OF RELAY.



1 LIGHTING PLAN

SCALE: 3/16" = 1'-0"

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SHEET CONTENTS:
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DATE:
APRIL 25, 2016

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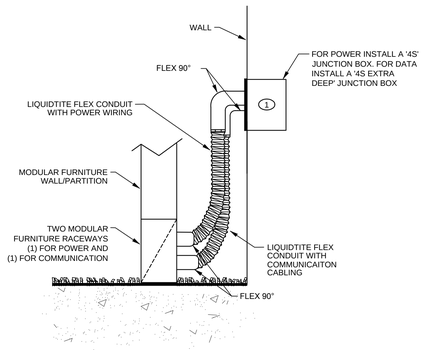
16323.00

SHEET:
E1.01



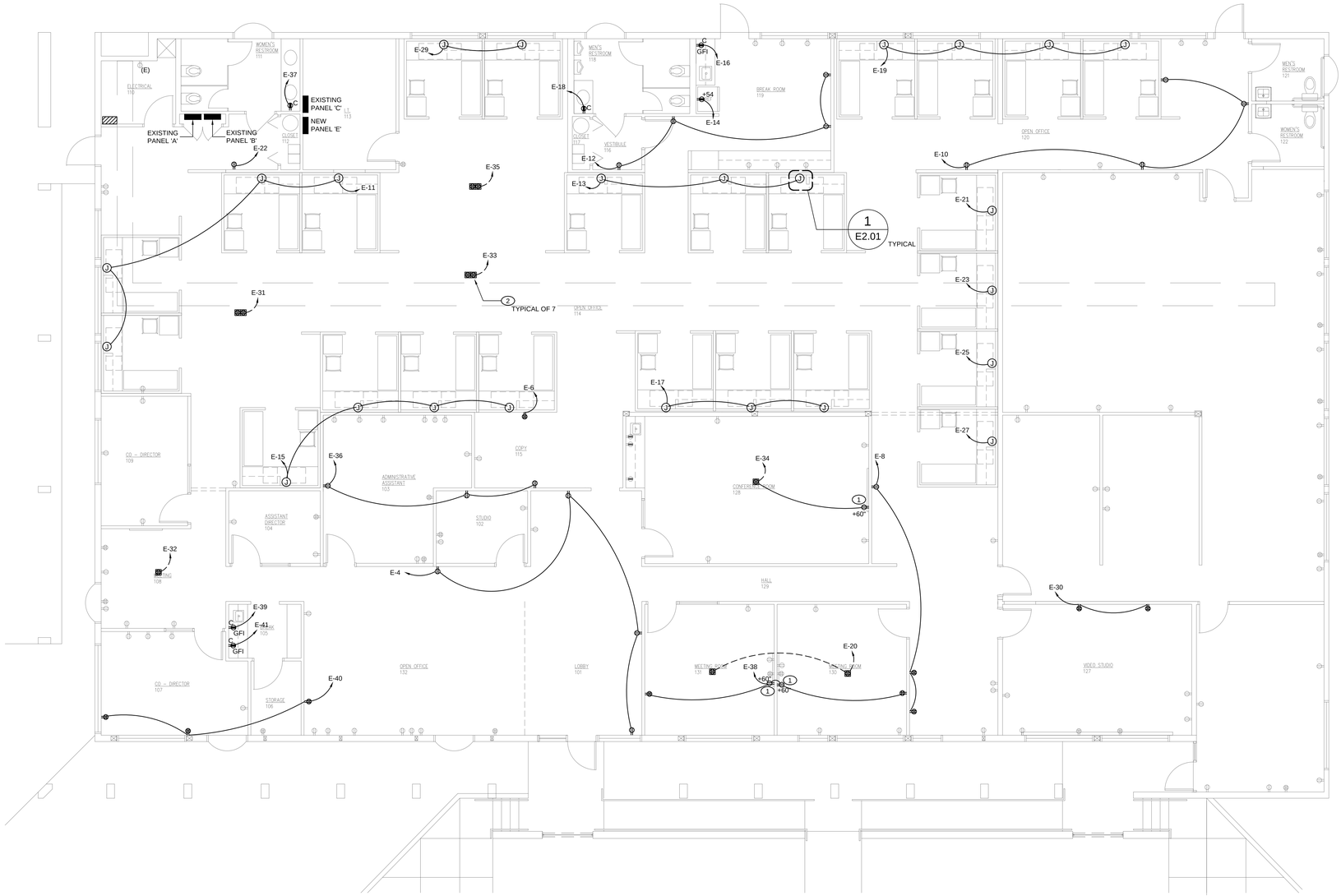
1 / E2.01

RECESSED FURNITURE FEED FROM WALL MOUNT JUNCTION BOXES

NOT TO SCALE

NOTES:

1. SEE PLANS FOR NUMBER OF HOMERUNS FOR EACH JUNCTION BOX. MINIMUM CONDUIT SIZE FOR POWER IS 3/4"C AND FOR COMMUNICATION IS 1-1/4"C.



1 POWER PLAN

SCALE: 3/16" = 1'-0"

POWER GENERAL NOTES:

1. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EQUIPMENT LOCATION AND REQUIREMENTS.
2. ALL RECEPTACLES AND OUTLETS LOCATED ON FURNITURE SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
3. VERIFY EXACT LOCATIONS OF ALL EQUIPMENT PER ARCHITECTURAL DRAWINGS.
4. ALL EXTERIOR DISCONNECTS SHALL BE NEMA-3R RATED.
5. EXTERIOR RECEPTACLES SHALL BE IN-USE WEATHER PROOF.
6. REFER TO SINGLE LINE DIAGRAM FOR FEEDER AND EQUIPMENT SIZES.

POWER KEY NOTES: (#)

1. PROVIDE POWER FOR TV.
2. RFB9 SERIES FLOORBOX. FOR POWER AND DATA CABLES. SAWCUT, TRENCH AND BACKFILL AS REQUIRED.

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SHEET CONTENTS:
POWER PLAN

DATE:
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E2.01

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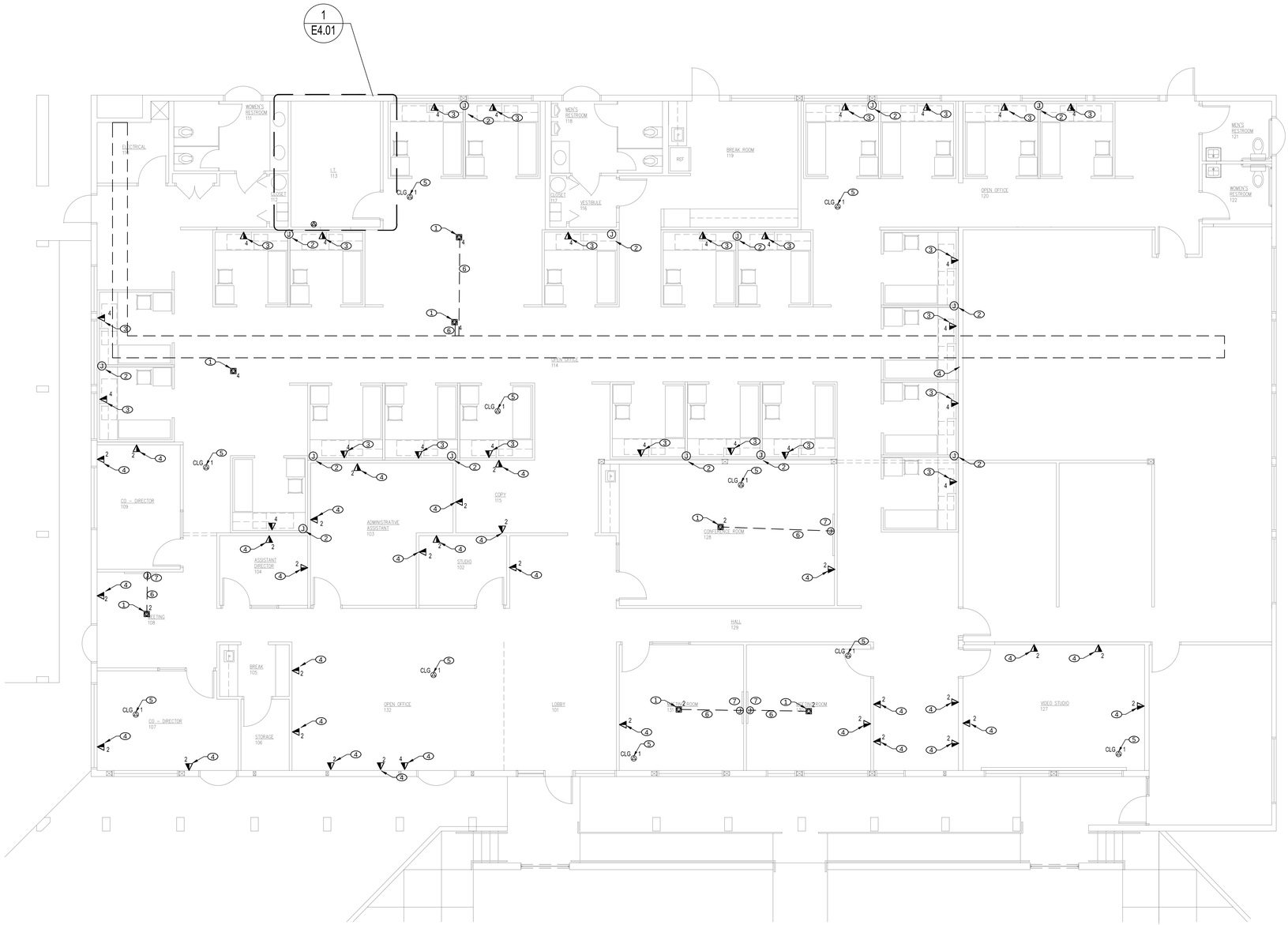
COMMUNICATIONS GENERAL NOTES:

1. ALL CURRENT FLOOR BOXES ARE TO REMAIN. UNLESS OTHERWISE NOTED
2. ALL CURRENT ELECTRICAL AND DATA LOCATIONS TO REMAIN AS IS UNLESS OTHERWISE NOTED.
3. FOR ALL POWER AND DATA TO BE INSTALLED WITHIN THE EXISTING TRENCH DUCT AND CELLULAR FLOOR THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND REINSTALLATION OF ALL FLOORING AS NEEDED TO ACCESS THE DISTRIBUTION SYSTEM.
4. ALL FLOOR BOX INSTALLATION REQUIRE AN XRAY OF THE FLOOR PRIOR TO THE START OF ANY WORK.
5. FOR THE REQUIREMENTS ON ROUTING AND SUPPORT OF ALL LOW VOLTAGE CABLE REFER TO THE SPECIFICATION HERE (http://oit.unlv.edu/sites/default/files/campus_wiring_standards_8-26-15_1.pdf)

COMMUNICATIONS KEY NOTES: (4)

1. FLOOR BOX OUTLET - PROVIDE A 1" CONDUIT FROM THE FLOOR BOX TO THE NEAREST WALL THEN TO THE CEILING SPACE ABOVE . REFER TO THE ELECTRICAL SHEET'S FOR THE FLOOR BOX TYPE PROVIDE CAT 6A DATA CABLES QTY AS INDICATED AND ROUTE THE CABLE TO THE TR ROOM #113.
2. DATA FURNITURE J-BOX - PROVIDE (1) 1 1/4" CONDUIT FROM THE FURNITURE TO THE CEILING SPACE ABOVE PROVIDE CAT 6A DATA CABLES QTY AS INDICATED FOR EACH STATION AND ROUTE THE CABLE TO THE TR ROOM #113.
3. FURNITURE OUTLET PROVIDE A 4 PORT MODULAR FURNITURE FACE PLATE AT EACH LOCATION COORDINATE WITH THE FURNITURE SUPPLIER AS TO WITCH FACEPLATES ARE REQUIRED. TERMINATE EACH CABLE AS INDICATED.
4. DATA OUTLET - PROVIDE A 1" CONDUIT TO THE CEILING SPACE WITH A 4 11/16 EXTRA DEEP J-BOX AND A SINGLE GANG MUD RING PROVIDE CAT 6A DATA CABLES QTY AS INDICATED AND ROUTE THE CABLE TO THE TR ROOM #113.
5. NEW CEILING MOUNTED WIRELESS LOCATION - CONTRACTOR SHALL INSTALL TWO (2) CAT 6A WITH A 4 11/16 EXTRA DEEP J-BOX AND A SINGLE GANG MUD RING. COORDINATE THE EXACT LOCATION PRIOR TO INSTALLATION. ROUTE THE CABLE TO THE TR ROOM #113. REFER TO DETAIL SHEET E4.XX FOR ADDITIONAL INFORMATION.
6. CONTRACTOR REQUIRED TO X-RAY AND SAW CUT THE FLOOR AS REQUIRED TO INSTALL THE CONDUIT AND FLOOR BOXES REFER TO THE ARCHITECTURAL DETAIL FOR ADDITIONAL INFORMATION.\
7. PROVIDE A 4 11/16" JUNCTION BOX A SINGLE GANG MUD RING AND A 1" CONDUIT ROUTED DOWN TO THE FLOOR ALSO TO THE CEILING SPACE ABOVE SEE DETAILS SHEET E4.01 FOR ADDITIONAL INFORMATION.



1 COMMUNICATION PLAN

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COMMUNICATION PLAN

DATE:
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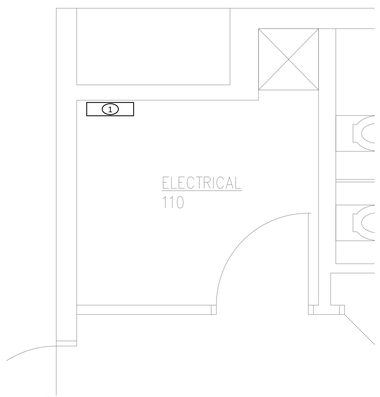
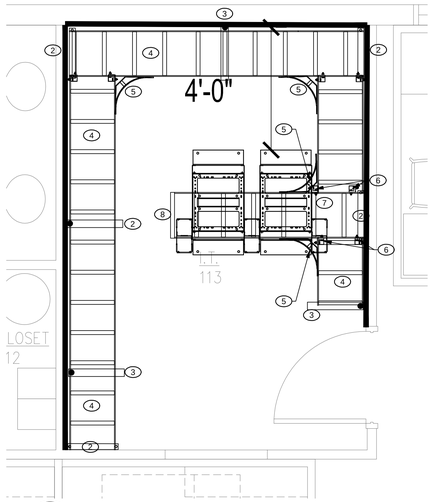
SHEET:
E3.01



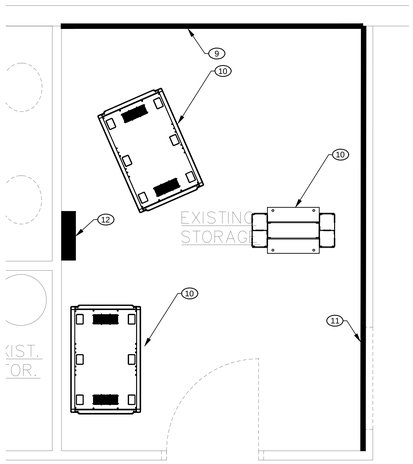
3 EXISTING ENTRANCE ROOM LAYOUT

SCALE: NONE



1 NEW TR ROOM LAYOUT

SCALE: NONE



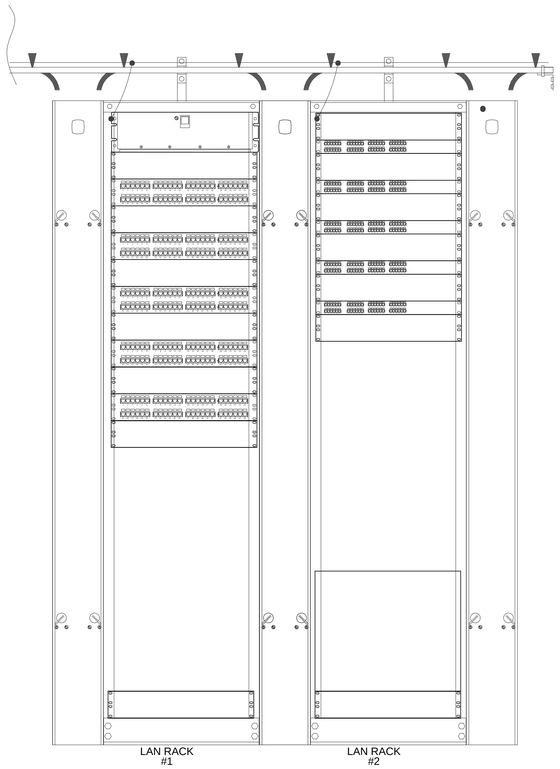
2 EXISTING TR ROOM LAYOUT

SCALE: NONE

ROOM #	ROOM DESCRIPTION	WIRELESS ACCESS	LOCATIONS				CABLE AT EACH LOCATION	CAT 6 Blue	IT CLOSET #
			CEILING MOUNTED	FLOOR BOXES	FURNITRUE OUTLETS	WALL BOXES		TOTAL CABLES	
SHEET # E3.01									
107	CO - DIRECTOR (CEILING)	1	1				1	1	IT# 113
107	CO - DIRECTOR (WALL)					2	2	4	IT# 113
108	MEETING AREA (FLOOR)			1			2	2	IT# 113
108	MEETING AERA (WALL)					1	2	2	IT# 113
109	CO - DIRECTOR (WALL)					2	2	4	IT# 113
114	OPEN OFFICE (CEILING)	3	3				1	3	IT# 113
114	OPEN OFFICE (FLOOR)			3			4	12	IT# 113
114	OPEN OFFICE (WORK STATIONS)				20		4	80	IT# 113
104	ASSISTANT DIRECTOR (WALL)					2	2	4	IT# 113
103	ADMIN ASSISTANT (WALL)					3	2	6	IT# 113
102	STUDIO (WALL)					2	2	4	IT# 113
115	COPY (WALL)					3	2	6	IT# 113
101	LOBBY (CEILING)	1	1				1	1	IT# 113
101	LOBBY (WALL)					5	2	10	IT# 113
101	LOBBY (COUNTER)				2		2	4	IT# 113
128	CONFERENCE ROOM (CEILING)	1	1				1	1	IT# 113
128	CONFERENCE ROOM (FLOOR)			1			2	2	IT# 113
128	CONFERENCE ROOM (WALL)					1	2	2	IT# 113
131	MEETING ROOM (CEILING)	1	1				1	1	IT# 113
131	MEETING ROOM (FLOOR)			1			2	2	IT# 113
131	MEETING ROOM (WALL)					2	2	4	IT# 113
130	MEETING ROOM (CEILING)	1	1				1	1	IT# 113
130	MEETING ROOM (FLOOR)			1			2	2	IT# 113
130	MEETING ROOM (WALL)					2	2	4	IT# 113
	OUT SIDE THE VIDEO STUDIO (WALL)					4	2	8	IT# 113
127	VIDEO STUDIO (CEILING)	1	1				1	1	IT# 113
127	VIEDO STUDIO (WALL)					4	2	8	IT# 113
120	OPEN OFFICE (CEILING)	1	1				1	1	IT# 113
120	OPEN OFFICE (WORK STATIONS)				4		4	16	IT# 113
	TOTALS IT 113	**10**	**10**	**7**	**26**	**33**		**196**	

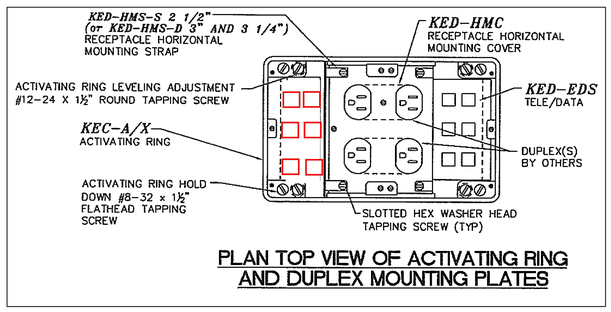
4 ROOM LIST MATRIX

SCALE: NONE



6 NEW RACK DETAILS

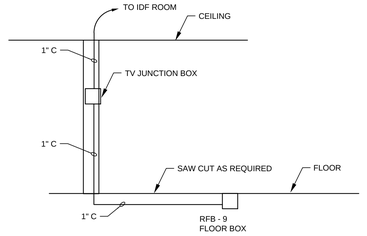
SCALE: NONE



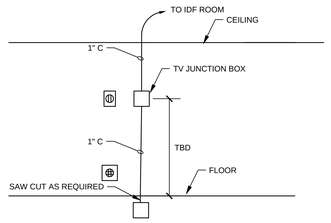
PLAN TOP VIEW OF ACTIVATING RING AND DUPLEX MOUNTING PLATES

5 TOP VIEW NEW FLOOR BOX

SCALE: NONE



SIDE VIEW



FRONT VIEW

5 TOP VIEW NEW FLOOR BOX

SCALE: NONE

SHEET NOTES

1. EXISTING INCOMING SERVICES
2. CHATSWORTH WALL ANGLE SUPPORT (PART# 11421-718) FOR 18"W LADDER TRAY, BLACK.
3. CHATSWORTH TRIANGLE SUPPORT BRACKET (PART# 11746-718) FOR 18"W LADDER TRAY, BLACK.
4. CHATSWORTH LADDER TRAY (PART# 10250-718) UNIVERSAL CABLE RUNWAY, 18"W, BLACK.
5. CHATSWORTH CORNER BRACKET (PART# 11959-715) 15" RADIUS, BLACK.
6. CHATSWORTH HEAVY DUTY JUNCTION SPLICE KIT (PART# 11298-701) FOR 18"W LADDER TRAY, BLACK.
7. CHATSWORTH LADDER TRAY (PART# 31472-718) ALTERNATE SPACE CABLE RUNWAY, 18"W, BLACK.
8. CHATSWORTH END CLOSING KIT (PART# 11700-718) FOR FOR 18"W LADDER TRAY, BLACK.
9. EXISTING PLYWOOD BACKBOARD TO REMAIN.
10. EXISTING CABINET OR 2 POST RACK TO BE REMOVED AND DISPOSED OF
11. BROVIDE ADDITIONAL PLYWOOD TO MATCH EXISTING.
12. EXISTING ELECTRICAL PANEL REFER TO THE ELECTRICAL POWER SHEETS FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. CONDUIT FOR ELECTRICAL SERVICES WITHIN ANY ER/ TR LOCATION SHALL BE INSTALLED BEHIND THE PLYWOOD BACKBOARD OR GYPSUM BOARD. THIS CONDUIT SHALL NEVER BE SURFACE MOUNTED.
2. AS REQUIRED BY DESIGN, CONDUIT FOR SURFACE MOUNTED FLOOR BOXES SHALL BE ROUTED UNDER THE CONCRETE SLAB FROM THE ELECTRICAL SUBPANEL TO THE SPECIFIC LOCATION SHOWN IN THE DETAIL DRAWINGS.
3. AS REQUIRED BY DESIGN, CONDUIT FOR SURFACE MOUNTED FLOOR BOXES SHALL BE ROUTED RECESSED IN WALL FROM THE ELECTRICAL SUB PANEL TO THE SPECIFIC LOCATION SHOWN IN THE DETAIL DRAWINGS.
4. CONDUIT FOR DATA AND/OR TELEPHONE CABLE WITHIN ANY ER/TR LOCATION SHALL BE INSTALLED BEHIND THE PLYWOOD BACKBOARD OR GYPSUM BOARD. THIS CONDUIT SHALL NEVER BE SURFACE MOUNTED.
5. BACKBOARD SHALL BE PLACED VERTICALLY, MOUNTED AT +12" AFF AND SHALL EXTEND TO +108" AFF.
6. PLACEMENT OF EXTERNAL ELECTRICAL SUBPANELS AND CUT OFF SWITCHES SHALL BE COORDINATED WITH THE OWNER PRIOR AT PLACEMENT. AT NO TIME SHALL THE PLACEMENT OF THESE TEMS INTERFERE WITH THE LAYOUT OF THE ROOM OR ASIGNED BACKBOARD SPACES.
7. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MATERIALS IDENTIFIED IN THESE DETAIL DRAWINGS AND ALL ADDITIONAL MATERIALS REQUIRED FOR THE SUCCESSFUL INSTALLATION OF THE LOW VOLTAGE SYSTEMS IN THE ER/TR SPACES.
8. REFER TO CONSTRUCTION INSTALLATION REQUIREMENTS (E4.40) FOR ADDITIONAL INFORMATION.
9. (E) - INDICATES EXISTING DEVICE TO REMAIN. (NL) - INDICATES NEW LOCATION OF DEVICE OR LIGHT FIXTURE. REMOVE LIGHT FIXTURE, STORE, CLEAN, RELAMP AND INSTALL IN NEW LOCATION. EXTEND CONDUIT AND WIRE AS REQUIRED.

PROFESSIONAL ENGINEER-STATE OF NEVADA
THOMAS M. ANDERSON
EXP. 12-31-16
ELECTRICAL
No. 13345

REVISIONS:

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MARYLAND ADMINISTRATIVE BUILDING I
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PROJECT:
UNLV MARYLAND
ADMINISTRATIVE BUILDING I
TENANT IMPROVEMENT

SHEET CONTENTS:
ENLARGED PLANS AND DETAILS

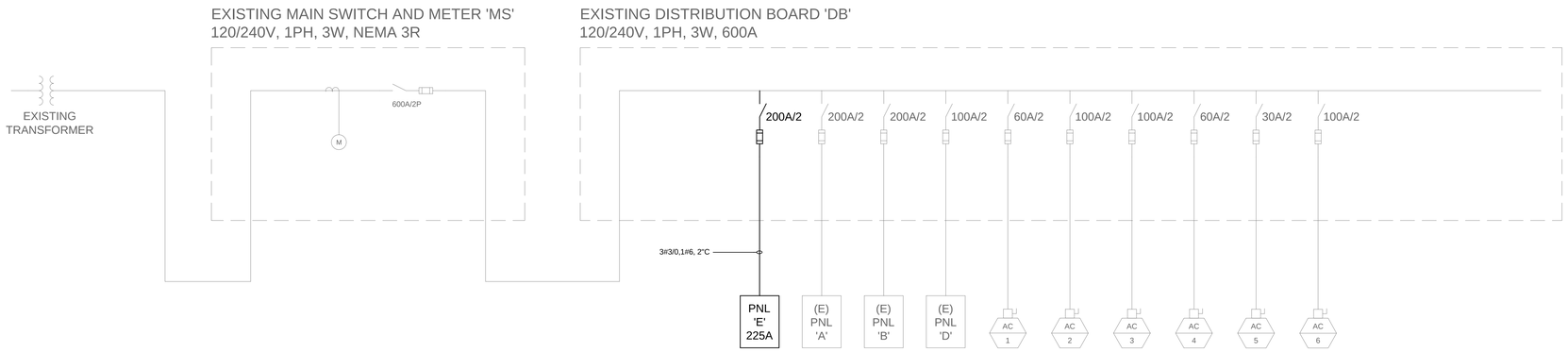
DATE:
APRIL 25, 2016

JOB NO:
16323.00

SHEET:
E4.01

GENERAL NOTES:

1. THE DESIGN PROFESSIONAL HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCUATIONS AND ALL BRANCH CIRCUITS AND FEEDER COMPLY WITH NEC 210.19(A)(1).



PARTIAL ELECTRICAL ONELINE DIAGRAM

NOT TO SCALE

EXISTING PANEL A

LOCATION: ELECTRICAL CLOSET | VOLTAGE: 120/240V | ENCLOSURE TYPE: NEMA 1
SUPPLY FROM: DB | PHASES: SINGLE | MOUNTING: EXISTING
MIN. BUS CAPACITY (A): 200 | WIRES: THREE | A/C RATING (A): 10,000
MAIN BREAKER: NO | NOTES: PANEL SHOWN FOR CLARITY ONLY

NOTES	CKTS	LOAD	LOAD DESCRIPTION	CKT BRK TRIP	CONNECTED LOAD (VA)		CKT BRK TRIP	LOAD DESCRIPTION	LOAD	CKTS	NOTES
	1		**SPARE**	20	A		20	OUTLET	R	2	1
	3		**SPARE**	20	B		20	**SPARE**		4	1
	5		**SPARE**	20	A		20	**SPARE**		6	1
	7		**SPARE**	20	B		20	OUTLETS	R	8	1
	9	R	OUTLETS	20	A		20	LIGHTING	L	10	1
	11	R	OUTLETS	20	B		20	OUTLETS	R	12	1
	13		**SPARE**	20	A		20	OUTLETS	R	14	1
	15	R	OUTLETS	20	B		20	OUTLETS	R	16	1
	17	R	OUTLETS	20	A		20	OUTLETS	R	18	1
	19		**SPARE**	20	B		20	OUTLETS	R	20	1
	21	R	OUTLETS	20	A		20	OUTLETS	R	22	1
	23	R	OUTLETS	20	B		20	OUTLETS	R	24	1
	25	R	OUTLETS	20	A		20	OUTLETS	R	26	1
	27	L	OUTSIDE LIGHTING	20	B		20	OUTLETS	R	28	1
	29	L	OUTSIDE LIGHTING	20	A		20	OUTLETS	R	30	1
	31	R	OUTLETS	20	B		20	FIRE ALARM PANEL	F	32	1
	33	L	OUTSIDE LIGHTING	20	A		20	OUTLETS	R	34	1
	35			20	B		20	OUTLETS	R	36	1
	37			20	A		20	OUTLETS	R	38	1
	39	R	OUTLETS	20	B		20	OUTLETS	R	40	1
	41	R	OUTLETS	20	A		20	OUTLETS	R	42	1

	CONNECTED VA		DEMAND VA
TOTAL RECEPTACLE (R)	0	0%	0
TOTAL MOTOR (M) LOAD	0	0%	0
TOTAL LIGHTING (L) LOAD @ 125%	0	0%	0
TOTAL KITCHEN (K) LOAD @100%	0	0%	0
TOTAL FIXED (F) LOAD	0	0%	0
TOTAL OTHER (O) LOAD	0	0%	0
TOTAL ELEVATOR (EL) LOAD @ 100%	0	0%	0
NOTES: TOTAL	0		0

CONNECTED AMP/PHASE
A | 0 B | 0

TOTAL CONNECTED AMP	######
TOTAL DEMAND AMP	######
PERCENT LOADED	######

1. EXISTING BREAKER
2. PROVIDE SHUNT TRIP DEVICE.
3. PROVIDE GFCI DEVICE.
4. PROVIDE RED CIRCUIT BREAKER
5. PROVIDE SUB-FEED BREAKER.
6. CONTROLLED VIA RELAY.
7. EXISTING LOAD REMOVED. RELISE EXISTING BREAKER.
8. CIRCUIT BREAKER CONTROLLED BY OTHER EQUIPMENT.
9. PROVIDE NEW BREAKER, MOUNTING HARDWARE, MATCH TYPE AND AIC RATING.

*CONNECTED PANEL (S) LOADS INCLUDED ABOVE

EXISTING PANEL B

LOCATION: ELECTRICAL CLOSET | VOLTAGE: 120/240V | ENCLOSURE TYPE: NEMA 1
SUPPLY FROM: DB | PHASES: SINGLE | MOUNTING: EXISTING
MIN. BUS CAPACITY (A): 200 | WIRES: THREE | A/C RATING (A): 10,000
MAIN BREAKER: NO | NOTES: PANEL SHOWN FOR CLARITY

NOTES	CKTS	LOAD	LOAD DESCRIPTION	CKT BRK TRIP	CONNECTED LOAD (VA)		CKT BRK TRIP	LOAD DESCRIPTION	LOAD	CKTS	NOTES
	1			20	A		20	OUTLETS		2	1
	3		FLOOR PLUGS	20	B		20	OUTLETS		4	1
	5		FLOOR PLUGS	20	A		20	OUTLETS		6	1
	7		FLOOR PLUGS	20	B		20			8	1
	9			20	A		20	OUTLETS		10	1
	11		FLOOR PLUGS	20	B		20	OUTLETS		12	1
	13		FLOOR PLUGS	20	A		20	OUTLETS		14	1
	15		FLOOR PLUGS	20	B		20	OUTLETS		16	1
	17		FLOOR PLUGS	20	A		20	OUTLETS		18	1
	19		OUTLETS	20	B		20	OUTLETS		20	1
	21		OUTLETS	20	A		20	OUTLETS		22	1
	23		OUTLETS	20	B		20	OUTLETS		24	1
	25		OUTLETS	20	A		20	OUTLETS		26	1
	27		OUTLETS	20	B		20			28	1
	29		OUTLETS	20	A		20	OUTLETS		30	1
	31			20	B		20	OUTLETS		32	1
	33		OUTLETS	20	A		20	FLOOR PLUGS		34	1
	35		ROOF A/C		B		20	FLOOR PLUGS		36	1
	37				A		20	FLOOR PLUGS		38	1
	39		WATER HEATER		B			WATER HEATER		40	1
	41				A					42	1

	CONNECTED VA		DEMAND VA
TOTAL RECEPTACLE (R)	0	0%	0
TOTAL MOTOR (M) LOAD	0	0%	0
TOTAL LIGHTING (L) LOAD @ 125%	0	0%	0
TOTAL KITCHEN (K) LOAD @100%	0	0%	0
TOTAL FIXED (F) LOAD	0	0%	0
TOTAL OTHER (O) LOAD	0	0%	0
TOTAL ELEVATOR (EL) LOAD @ 100%	0	0%	0
NOTES: TOTAL	0		0

CONNECTED AMP/PHASE
A | 0 B | 0

TOTAL CONNECTED AMP	######
TOTAL DEMAND AMP	######
PERCENT LOADED	######

1. EXISTING BREAKER
2. PROVIDE SHUNT TRIP DEVICE.
3. PROVIDE GFCI DEVICE.
4. PROVIDE RED CIRCUIT BREAKER
5. PROVIDE SUB-FEED BREAKER.
6. CONTROLLED VIA RELAY.
7. EXISTING LOAD REMOVED. RELISE EXISTING BREAKER.
8. CIRCUIT BREAKER CONTROLLED BY OTHER EQUIPMENT.
9. PROVIDE NEW BREAKER, MOUNTING HARDWARE, MATCH TYPE AND AIC RATING.

*CONNECTED PANEL (S) LOADS INCLUDED ABOVE

EXISTING PANEL D

LOCATION: IDF 113 | VOLTAGE: 120/240V | ENCLOSURE TYPE: NEMA 1
SUPPLY FROM: DB | PHASES: SINGLE | MOUNTING: EXISTING
MIN. BUS CAPACITY (A): 100 | WIRES: THREE | A/C RATING (A): 10,000
MAIN BREAKER: NO | NOTES: PANEL SHOWN FOR CLARITY

NOTES	CKTS	LOAD	LOAD DESCRIPTION	CKT BRK TRIP	CONNECTED LOAD (VA)		CKT BRK TRIP	LOAD DESCRIPTION	LOAD	CKTS	NOTES
	1	L	EXISTING EXTERIOR LIGHTS	20	A		30	SERVER RACK		2	1
	3	L	LIGHTS	20	B		20	TELECOMM RACK		4	1
	5	R	OUTLETS	20	A		20	OUTLETS		6	1
	7	R	COPIER	20	B		20	OUTLETS		8	1
	9	R	COPIER	20	A		20	PATCH PANEL HUB		10	1
	11	R	ROOF RECEPTACLES	20	B		20/2	AC-1		12	1
	13	R	OUTLETS	20	A					14	1
	15			20	B		20	QUAT IN WAN PANEL		16	1
	17	R	COPIER	20	A		30	30A TWIST LOCK IN WAN PANEL		18	1
	19		PBX	20	B		20	RECEPTACLE		20	1
	21	R	RECEPTACLES	20	A		20	RECEPTACLE		22	1
	23	R	RECEPTACLES	20	B		20	RECEPTACLE		24	1
	25	L	LIGHTS	20	A		20	RECEPTACLE		26	1
	27		SP	20	B		20	RECEPTACLE		28	1
	29	R	RECEPTACLES	20	A		20	SP		30	1
	31				B					32	
	33				A					34	
	35				B					36	
	37				A					38	
	39				B					40	
	41				A					42	

	CONNECTED VA		DEMAND VA
TOTAL RECEPTACLE (R)	0	0%	0
TOTAL MOTOR (M) LOAD	0	0%	0
TOTAL LIGHTING (L) LOAD @ 125%	0	0%	0
TOTAL KITCHEN (K) LOAD @100%	0	0%	0
TOTAL FIXED (F) LOAD	0	0%	0
TOTAL OTHER (O) LOAD	0	0%	0
TOTAL ELEVATOR (EL) LOAD @ 100%	0	0%	0
NOTES: TOTAL	0		0

CONNECTED AMP/PHASE
A | 0 B | 0

TOTAL CONNECTED AMP	######
TOTAL DEMAND AMP	######
PERCENT LOADED	######

1. EXISTING BREAKER
2. PROVIDE SHUNT TRIP DEVICE.
3. PROVIDE GFCI DEVICE.
4. PROVIDE RED CIRCUIT BREAKER
5. PROVIDE SUB-FEED BREAKER.
6. CONTROLLED VIA RELAY.
7. EXISTING LOAD REMOVED. RELISE EXISTING BREAKER.
8. CIRCUIT BREAKER CONTROLLED BY OTHER EQUIPMENT.
9. PROVIDE NEW BREAKER, MOUNTING HARDWARE, MATCH TYPE AND AIC RATING.

*CONNECTED PANEL (S) LOADS INCLUDED ABOVE

PANEL E

LOCATION: IDF 113 | VOLTAGE: 120/240V | ENCLOSURE TYPE: NEMA 1
SUPPLY FROM: DB | PHASES: SINGLE | MOUNTING: SURFACE
MIN. BUS CAPACITY (A): 225 | WIRES: THREE | A/C RATING (A): 10,000
MAIN BREAKER: NO | NOTES:

NOTES	CKTS	LOAD	LOAD DESCRIPTION	CKT BRK TRIP	CONNECTED LOAD (VA)			CKT BRK TRIP	LOAD DESCRIPTION	LOAD	CKTS	NOTES
	1	L	OFFICE LIGHTINGS	20	1895	A		20	SPARE	R	2	
	3	L	OFFICE LIGHTINGS	20	1155	B	900	20	LOBBY 101	R	4	
	5	L	OFFICE LIGHTINGS	20	1750	A	360	20	COPY 115	R	6	
	7	L	OFFICE LIGHTINGS	20	1510	B	800	20	HALL 129	R	8	
	9	L	EXISTING OFFICE LIGHTING	20	1792	A	720	20	OPEN OFFICE 120	R	10	
	11	R	OPEN OFFICE 114 FURNITURE	20	1440	B	360	20	BREAK ROOM 119/ VESTIBULE 116	R	12	
	13	R	OPEN OFFICE 114 FURNITURE	20	1080	A	1700	20	BREAK ROOM 119 REFRIGERATOR	R	14	
	15	R	OPEN OFFICE 114 FURNITURE	20	1440	B	180	20	BREAK ROOM 119	R	16	
	17	R	OPEN OFFICE 114 FURNITURE	20	1080	A	180	20	MENS RESTROOM 118 RECEPTACLE	R	18	
	19	R	OPEN OFFICE 114 FURNITURE	20	1440	B	720	20	MEETING RMS 130,131 FLOOR BOX	R	20	
	21	R	OPEN OFFICE 114 FURNITURE	20	360	A	180	20	ENTRY	R	22	
	23	R	OPEN OFFICE 114 FURNITURE	20	360	B	180	20	IDF 113 NEMA 5-20R	R	24	
	25	R	OPEN OFFICE 114 FURNITURE	20	360	A	1360	20	IDF 113 NEMA 5-20R	R	26	
	27	R	OPEN OFFICE 114 FURNITURE	20	360	B	360	20	IDF 113 NEMA L6-30R	R	28	
	29	R	OPEN OFFICE 114 FURNITURE	20	720	A	720	20	VIDEO STUDIO 127 FLOOR BOX	R	30	
	31	R	OPEN OFFICE 114 FLOOR BOX	20	720	B	360	20	MEETING 108 FLOORBOX	R	32	
	33	R	OPEN OFFICE 114 FLOOR BOX	20	720	A	540	20	CONFERENCE ROOM 128 FLOOR BOX	R	34	
	35	R	OPEN OFFICE 114 FLOOR BOX	20	720	B	540	20	OFFICE 103, 102, AND 115 RECEP	R	36	
	37	R	WOMEN RESTROOM 111 RECEPTACLE	20	180	A	1080	20	MEETING ROOMS 130, 131 TV RECEPT	R	38	
	39	R	BREAK 105	20	180	B	1080	20	DIRECTOR 107, OFFICE 132 RECEPT	R	40	
	41	R	BREAK 105	20	180	A		20	SPARE		42	

	CONNECTED VA		DEMAND VA
TOTAL RECEPTACLE (R)	22660	72%	16330
TOTAL MOTOR (M) LOAD	0	0%	0
TOTAL LIGHTING (L) LOAD @ 125%	8102	125%	10127.5
TOTAL KITCHEN (K) LOAD@100%	0	0%	0
TOTAL FIXED (F) LOAD	0	0%	0
TOTAL OTHER (O) LOAD	0	0%	0
TOTAL ELEVATOR (EL) LOAD @ 100%	0	0%	0
NOTES: TOTAL	30762		26457.5

CONNECTED AMP/PHASE
A | 133 B | 123.4

TOTAL CONNECTED AMP	######
TOTAL DEMAND AMP	######
PERCENT LOADED	######

1. EXISTING BREAKER
2. PROVIDE SHUNT TRIP DEVICE.
3. PROVIDE GFCI DEVICE.
4. PROVIDE RED CIRCUIT BREAKER
5. PROVIDE SUB-FEED BREAKER.
6. CONTROLLED VIA RELAY.
7. EXISTING LOAD REMOVED. RELISE EXISTING BREAKER.
8. CIRCUIT BREAKER CONTROLLED BY OTHER EQUIPMENT.
9. PROVIDE NEW BREAKER, MOUNTING HARDWARE, MATCH TYPE AND AIC RATING.

*CONNECTED PANEL (S) LOADS INCLUDED ABOVE

LIGHTING FIXTURE SCHEDULE

FIXT ID	TYPE	MANUFACTURER AND CATALOG NO.	LAMPS NO.	LAMPS WATT	LAMPS TYPE	CKT VLTS	REMARKS AND MOUNTING
F1	2'X2' LED RECESSED TROFFER	LITHONIA - 2BLT2 40L ADP EZ1 LP840	1	39	LED 4000K	UNV	
F1A	2'X2' LED RECESSED TROFFER	LITHONIA - 2BLT2 40L ADP EZ1 LP840-EL14L	1	39	LED 4000K	UNV	PROVIDE WITH 1400 LUMEN EMERGENCY BATTERY PACK FOR 90 MIN OPERATION
F2	2'X4' LED RECESSED TROFFER	LITHONIA - 2BLT4 40L ADP EZ1 LP840	1	34	LED 4000K	UNV	
F2A	2'X4' LED RECESSED TROFFER	LITHONIA - 2BLT4 40L ADP EZ1 LP840-EL14L	1	34	LED 4000K	UNV	PROVIDE WITH 1400 LUMEN EMERGENCY BATTERY PACK FOR 90 MIN OPERATION
F3	6" DOWNLIGHT LED - DOWNLIGHT	LITHONIA - LDN6 40/10 L08WR VOLTAGE	1	22	LED 4000K	UNV	
F4	6" LED DOWNLIGHT	LITHONIA - LDN6 40/20 L08WR VOLTAGE	1	35	LED 4000K	UNV	
F5	48" LED STRIP LIGHT	LITHONIA - ZL1N L48 3000LM FST MVOLT 40K	1	33	LED 4000K	UNV	PROVIDE WITH 1400 LUMEN EMERGENCY BATTERY PACK FOR 90 MIN OPERATION
F6	45° CUSTOM PENDANT	HALLMARK LIGHTING D700-487	6	23	CFL 2700K	120	
X1	WALL MOUNTED EXIT SIGN	LITHONIA LIGHTING LQC-1-R-EL N	N/A		LED	UNV	
X2	DUAL SIDED MOUNTED EXIT SIGN	LITHONIA LIGHTING LQC-1-R-EL N	N/A		LED	UNV	

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ONE LINE DIAGRAM AND SCHEDULES

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