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GENERAL NOTES

1. ALL DIMENSIONS & EXISTING CONDITIONS IN AREAS OF WORK ARE TO BE FIELD VERIFIED PRIOR TO COMMENCING WORK - ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT OR ENGINEER OF RECORD PRIOR TO COMMENCING WORK.

2. PROTECT ALL AREAS & SURFACES ADJACENT TO DEMOLITION & CONSTRUCTION. PATCH & REPAIR ANY DAMAGE OR HOLES IN WALLS, CEILINGS & FLOORS RESULTING FROM THE DEMOLITION OF EXISTING ITEMS OR THE CONSTRUCTION OF NEW ITEMS.

3. NOTED AREAS INDICATED THE GENERAL EXTENT OF DEMOLITION. THE CONTRACTOR'S CHOICE OF MEANS & METHODS OF CONSTRUCTION MAY REQUIRE MORE OR LESS DEMOLITION. THE MEANS & METHODS OF DEMOLITION & CONSTRUCTION MUST BE ACCOUNTED FOR IN THE CONTRACTORS BID. ANY DEMOLITION & REPAIR TO ADJACENT SURFACES BEYOND THE AREAS INDICATED IN THE CONTRACT DOCUMENTS WILL NOT BE COMPENSATED FOR AFTER THE BID OPENING.

4. PRIOR TO THE START OF DEMOTION, THE CONTRACTOR IS TO MEET WITH THE OWNER & ARCHITECT TO IDENTIFY ALL ITEMS TO BE DEMOLISHED & REMOVED FROM SITE, ITEMS TO BE REMOVED & RETURNED TO THE OWNER, OR ITEMS TO BE REMOVED & REINSTALLED.

5. 72-HOUR NOTICE IS REQUIRED FOR ANY UTILITY SHUT DOWN.

6. PRIOR TO BIDDING, THE CONTRACTOR IS TO SURVEY THE EXISTING WALL CONDITIONS. ALL EXISTING NAILS, SCREWS, ABANDONED FASTENERS & HARDWARE IN THE WALLS INDICATED TO REMAIN ARE TO BE REMOVED & THE HOLES PATCHED. IN ADDITION, ALL DAMAGE TO EXISTING WALLS IS TO BE PATCHED & REPAIRED AS PART OF THE BASE BID.

PROJECT DIRECTORY

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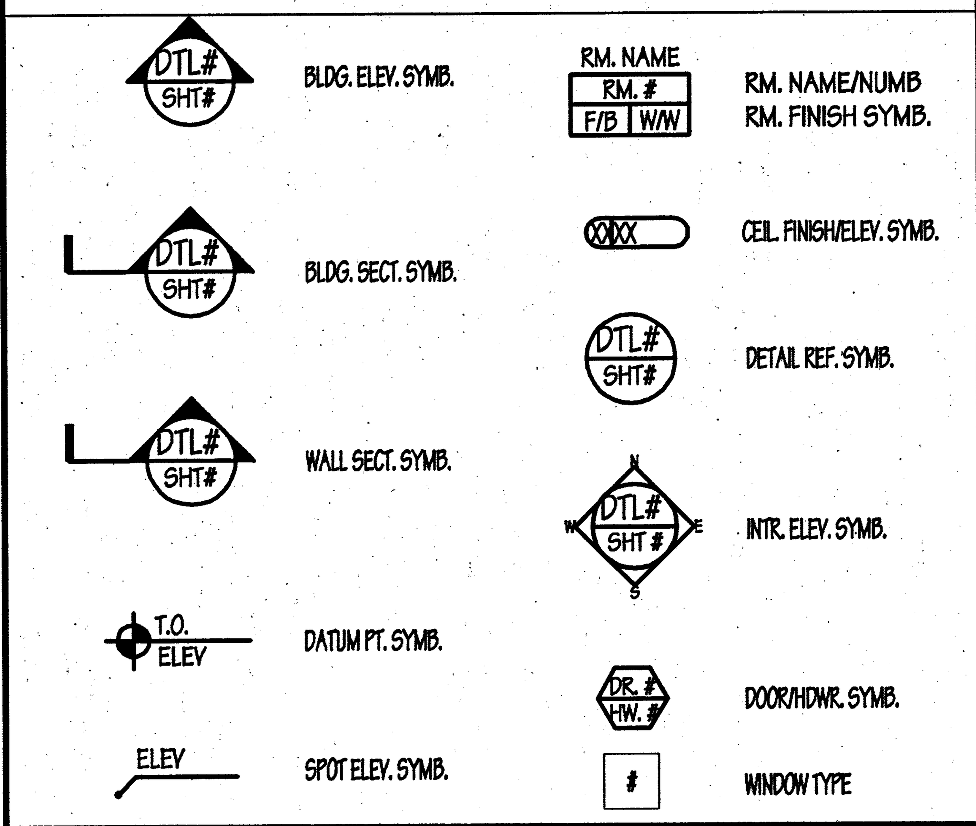
ELECTRICAL ENGINEER
Electrical Engineering and Lighting Design
1220 South 300 West
Salt Lake City, Utah 84101
801-486-2222/Fax 801-474-3353

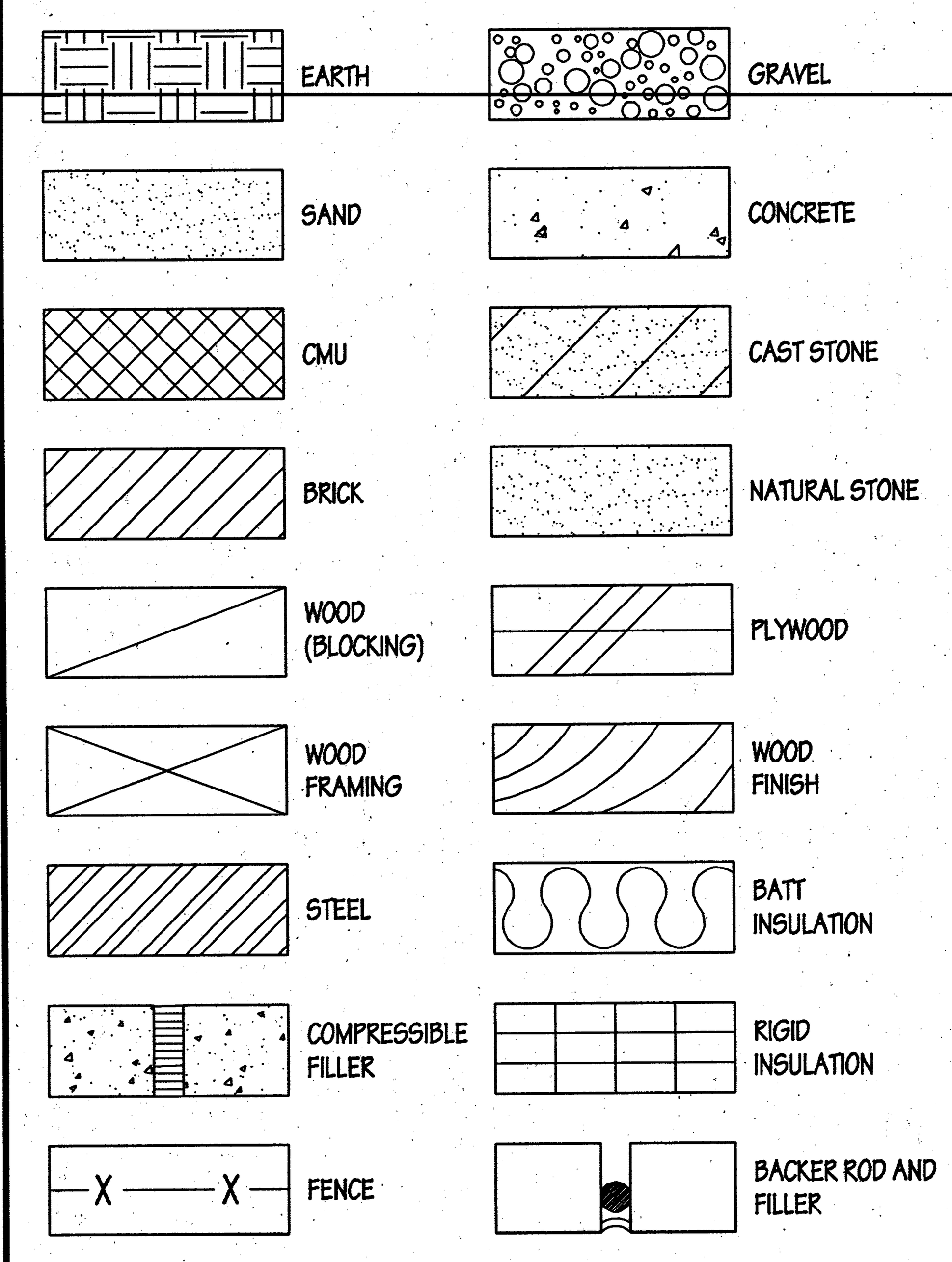
GRAPHIC SYMBOLS



GENERAL ABBREVIATIONS

ACT.	ACOUSTIC CEILING TILE
ALT.	ALTERNATE
ALUM.	ALUMINUM
A.B.	ANCHOR BOLT
&	AND
ARCH.	ARCHITECTURAL
@	AT OR AT THE
BM.	BEAM
BLK.	BLOCK
BLKG.	BLOCKING
BD.	BOARD
BOT.	BOTTOM
BLDG.	BUILDING
CPT.	CARPET
CLKG.	CAULKING
C.I.	CAST IRON
CLG.	CEILING
CEM.	CEMENT
CTR.	CENTER
CL	CENTER LINE
CER.	CERAMIC
C.T.	CERAMIC TILE
CLR.	CLEAR (ANCE)
CLO.	CLOSET
COL.	COLUMN
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
CMP	CORRUGATED METAL PIPE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUE/CONTINUOUS
CONTR.	CONTRACTOR
C.J.	CONTROL JOINT
CORR.	CORRIDOR
CNTR.	COUNTER
CTSK.	COUNTERSUNK
DET.	DETAIL
DEPT.	DEPARTMENT
DIA.	DIAMETER
DIM.	DIMENSION
DN.	DOWN
D.S.	DOWNSPOUT
DWG.	DRAWING
D.F.	DRINKING FOUNTAIN
E.	EAST
EA.	EACH
ELEC.	ELECTRIC (AL)
ELEV./EL.	ELEVATION
EXIST.	EXISTING
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
FIN.	FINISH
F.A.	FIRE ALARM
F.E.	FIRE EXTINGUISHER
F.E.C.	F.E. CABINET
FLR./FL.	FLOOR
F.D.	FLOOR DRAIN
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FTG.	FOOTING
FDN.	FOUNDATION
F.F.	FINISH FLOOR
GALV	GALVANIZED
G.I.	GALVANIZED IRON
GA.	GAUGE
GL.	GLASS
GR.	GRADE
GND.	GROUND
GYP. BD.	GYPSUM BOARD
GWB	GYPSUM WATERPROOF BOARD
H.D.P.E.	HIGH DENSITY POLYETHYLENE
HG#	HARDWARE GROUP #
HDWD.	HARDWOOD
HT.	HEIGHT
H.P.	HIGH POINT
HORIZ.	HORIZONTAL
H.B.	HOSE BIBB
H.M.	HOLLOW METAL
HR.	HOURS (FIRE RATING)
IN.	INCH
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INV.	INVERT ELEVATION
JAN.	JANITOR
JT.	JOINT
J-BOX	JUNCTION BOX
KIT.	KITCHEN
LAM.	LAMINATE
LAV.	LAVATORY
LT.	LIGHT
L.P.	LOW POINT
MATL.	MATERIAL
MAS.	MASONRY
MAINT.	MAINTENANCE
MFR.	MANUFACTURER
M.H.	MANHOLE
M.O.	MASONRY OPENING
MAX.	MAXIMUM
MECH.	MECHANICAL
MEMB.	MEMBRANE
MEN	MEN'S TOILET
MTL./MET.	METAL
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
MTD.	MOUNTED
MUL.	MULLION
NOM.	NOMINAL
N.	NORTH
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO.	NUMBER
OR #	ORDINATE NUMBER
OFF.	OFFICE
O.C.	ON CENTER
OPNG.	OPENING
OPP.	OPPOSITE
OPP. H.	OPPOSITE HAND
O.D.	OUTSIDE DIAMETER
O.R.D.	OVERFLOW ROOF DRAIN
PTD. -E	PAINTED EPOXY
PTD.	PAINTED
PR.	PAIR
PART.	PARTITION
PED.	PEDESTRIAN
PLAS.	PLASTER
P. LAM.	PLASTIC LAMINATE
PL	PLATE
PLYWD.	PLYWOOD
PT.	POINT
Q.T.	QUARRY TILE
RAD.	RADIUS
R.B.	RUBBER BASE
R.W.L.	RAIN WATER LEADER
R.F.F.	REFERENCE FINISH FLOOR
REFL.	REFLECTED
REINF.	REINFORCING
REQ.	REQUIRED
RET.	RETAINING
REV.	REVISED
R.	RISER
R.D.	ROOF DRAIN
RM.	ROOM
R.O.	ROUGH OPENING
SCHED.	SCHEDULE
SEAL.	SEALANT
SECT.	SECTION
S.SK.	SERVICE SINK
SHT.	SHEET
SIM.	SIMILAR
SL./SLP.	SLOPE
S.C.	SOLID CORE
SPEC.	SPECIFICATIONS
SQ.	SQUARE
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUCT	STRUCTURAL/STRUCTURE
SYM.	SYMMETRICAL
T.B.R.	TO BE REMOVED
TEL.	TELEPHONE
TEMP.	TEMPORARY / TEMPERED
THK.	THICK (NESS)
T & G	TONGUE AND GROOVE
T/CONC	TOP OF CONCRETE
T/CURB	TOP OF CURB
T.O. FTG.	TOP OF FOOTING
T.O.P.	TOP OF PLATE
T/WALL	TOP OF WALL
T.	TREAD
TYP.	TYPICAL
UNF.	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
VAR.	VARY OR VARIES
VERT.	VERTICAL
V.T.R.	VENT THROUGH ROOF
VCT	VINYL COMPOSITION TILE
W/	WITH
W.A.S.	WELDED ANCHOR STUD
WD.	WOOD
WP.	WATERPROOF
WSCT.	WAINSCOT
W/O	WITHOUT
W.P.	WORKING POINT
W.R.	WATER RESISTANT
W.I.	WROUGHT IRON

MATERIALS LEGEND



CODE REVIEW

APPLICABLE CODES

	Year		Year
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for Building Conservation	2006
International Plumbing Code	2006	ADA Accessibility Guidelines	2003
International Fire Code	2006		
International Energy Conservation Code	2006		

A. Occupancy and Group: B

Change in Use: Yes ______ No X Mixed Occupancy: Yes ______ No X

Special Use and Occupancy (e.g. High Rise, Covered Mall): NO

B. Seismic Design Category: NA Design Wind Speed: NA mph

C. Type of Construction (circle one):

I/A I/B II/A II/B III/A III/B IV/HT V/A (V/B circled)

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: - 0 - South: - 0 - East: - 0 - West: - 0 -

E. Mixed Occupancies: NONE Nonseparated Uses: NO

F: Sprinklers:

Required: YES Provided: YES Type of Sprinkler System: WET

G: Number of Stories: 1 Building Height: NA

H: Actual Area per Floor (square feet): NA

I: Tabular Area: NA

J: Area Modifications:

a) $A_a = A_t + \left[\frac{A_t I_f}{100}\right] + \left[\frac{A_t I_s}{100}\right]$ $I_f = 100\left[\frac{F}{P} - 0.25\right]\frac{W}{30}$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:

1) One Story: ______

2) Two Story: $A_a(2)$______

3) Three Story: $A_a(3)$______

d) Unlimited Area Building: Yes ______ No ______ Code Section: ______

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	N/A		Floors - Ceiling Floors	N/A	
Interior Bearing Walls	N/A		Roofs - Ceiling Roofs	N/A	
Exterior Non-Bearing Walls	N/A		Exterior Doors and Windows	N/A	
Structural Frame	N/A		Shaft Enclosures	N/A	
Partitions - Permanent	N/A		Fire Walls	N/A	
Fire Barriers	N/A		Fire Partitions	N/A	
	N/A		Smoke Partitions	N/A	

L. Design Occupant Load: NA

Exit Width Required: NA Exit Width Provided: NA

M. Minimum Number of Required Plumbing Facilities:

a) Water Closets - Required (m) NA (f) NA Provided (m) NA (f) NA

b) Lavatories - Required (m) NA (f) NA Provided (m) NA (f) NA

c) Bath Tubs or Showers: NA

d) Drinking Fountains: NA Service Sinks: NA

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:

a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

DRAWING INDEX

GENERAL DRAWINGS

G101	TITLE SHEET, GENERAL INFORMATION & SHEET INDEX

ARCHITECTURAL DRAWINGS

AD101	DEMOLITION PLAN
AE101	FLOOR PLAN
AE110	REFLECTED CEILING PLAN & CEILING DETAILS

MECHANICAL / PLUMBING DRAWINGS

M101	MECHANICAL FLOOR PLAN

ELECTRICAL DRAWINGS

EE-001	GENERAL NOTES, DETAILS, AND PANEL SCHEDULES
EE-002	POWER PLAN SINGLE LINE
ES-101	POWER PLAN-ELECTRICAL

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STATE OF UTAH
ROBERT L. SMITH
273828-0301
LICENSED ARCHITECT
8-25-08

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
REVIEWED FOR CODE COMPLIANCE
SIGNATURE: FC
DATE: 8-27-08

Board of Education
250 EAST 500 SOUTH
SALT LAKE CITY, UTAH 84111

TITLE SHEET, INDEX & GENERAL INFO

DATE: AUGUST 25, 2008

EELD #222

G101

DEMOLITION KEYED NOTES

1. REMOVE EXISTING CARPET COMPLETE. REMOVE ADHESIVE AND PATCH AND REPAIR FLOOR AS REQUIRED. SEE AE101 FOR DETAILS.
2. REMOVE WALL SECTION FOR 2'-8" x 7'-0" OPENING. SEE AE101 FOR DETAILS. PATCH AND REPAIR WALL AS REQUIRED
3. REMOVE CEILING SYSTEM COMPLETE. REPLACE WITH NEW ACOUSTICAL LAY-IN CEILING TILE AND GRID. SEE SHEET AE110 FOR DETAILS.

GENERAL DEMOLITION NOTES

A. CONTRACTOR SHALL PERFORM ALL DEMOLITION AND PREPARATION WORK AS SHOWN ON DRAWINGS AND AS REQUIRED FOR A COMPLETE AND PROPER JOB. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID TO VERIFY EXTENT OF REQUIRED DEMOLITION AND PREPARATION WORK. THE CONTRACTOR SHALL REMOVE FROM THE SITE AND DISPOSE OF ALL DEMOLITION ITEMS IN ACCORDANCE WITH ALL APPLICABLE STATE AND FEDERAL LAWS.

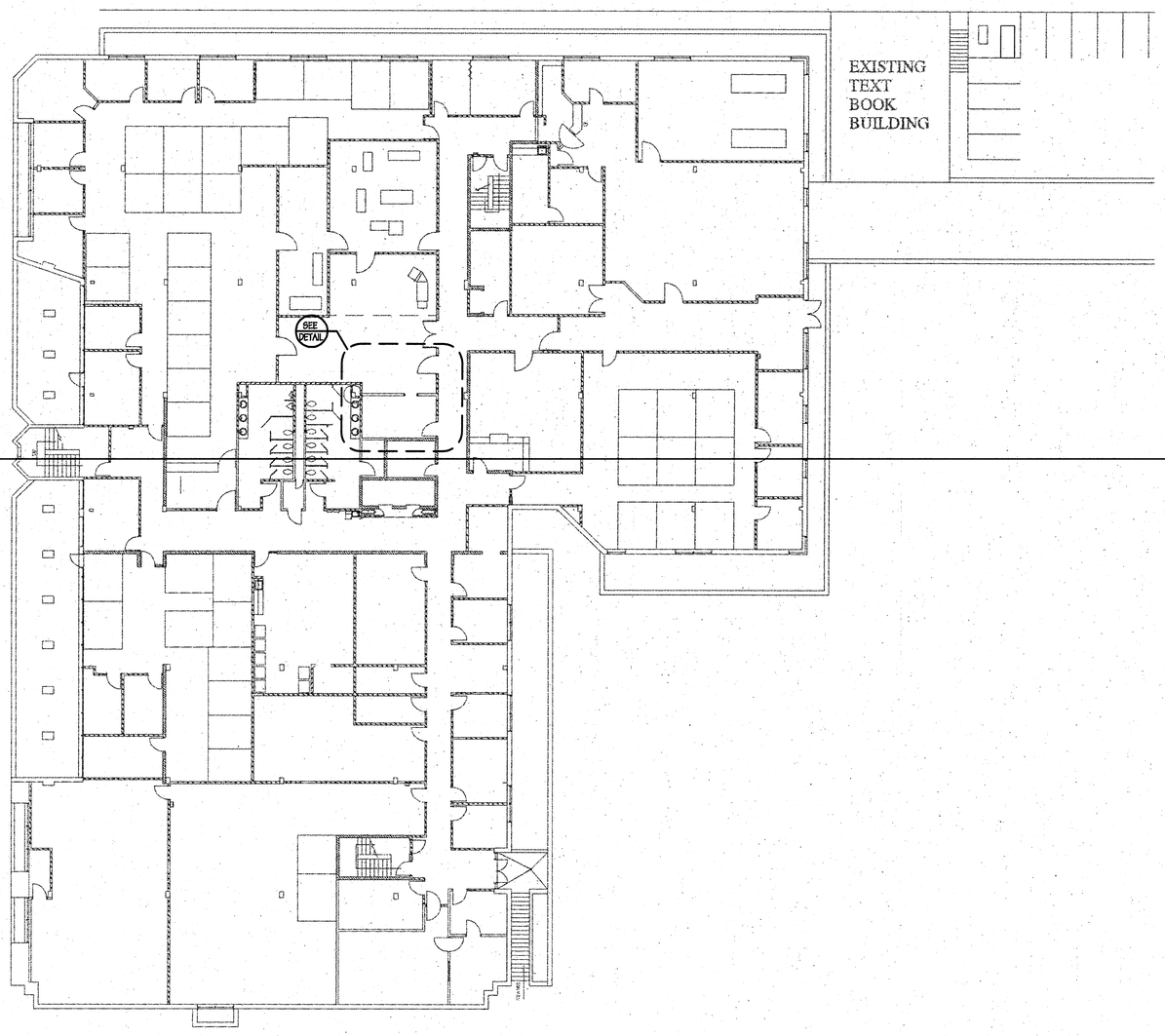
B. ALL ITEMS NOT INDICATED FOR REMOVAL SHALL REMAIN AND SHALL BE PROTECTED. ANY ITEMS DAMAGED SHALL BE REPAIRED TO MATCH THE ADJACENT SURFACE.

C. GRID DIMENSIONS ARE EXISTING AND ARE BASED ON OWNER PROVIDED INFORMATION AND SHALL BE FIELD VERIFIED.

D. SEE MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

SYMBOL LEGEND

- EXISTING FLUORESCENT LIGHT FIXTURE
- EXISTING RETURN AIR REGISTER
- EXISTING SPRINKLER HEAD



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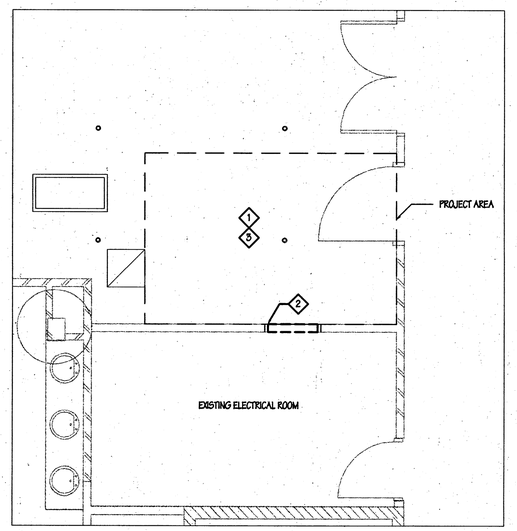
FLOOR PLAN-DEMOLITION-BASEMENT

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



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DEMOLITION PLAN

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

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STATE OF UTAH
ROBYN L. SMITH
LICENSED ARCHITECT
8-25-08

Board of Education

250 EAST 500 SOUTH
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DEMOLITION FLOOR PLAN

DATE: AUGUST 25, 2008

EELD #222

AD101

WALL SCHEDULE LEGEND

A. 3-5/8" METAL FRAMING AT 16" O.C. W/ 5/8" GYPSUM BOARD EACH SIDE. EXTEND WALL ABOVE CEILING AND BRACE. SEE C5, THIS SHEET, FOR BRACING DETAIL.

FINISH SCHEDULE

FLOOR / BASE FINISH — 0000 — ROOM NUMBER; A | 2 — WALL / FINISH

FLOOR / BASE	WALL / WAINSCOT
A. EXISTING CONCRETE SLAB WITH NEW RUBBER BASE.	1. PAINTED GYPSUM BOARD.
B. EXISTING CARPET WITH NEW RUBBER BASE AT NEW WALL.	2. PAINT NEW GYPSUM BOARD AND EXTEND TO BREAK POINT AS SHOWN ON PLAN.

GENERAL NOTES

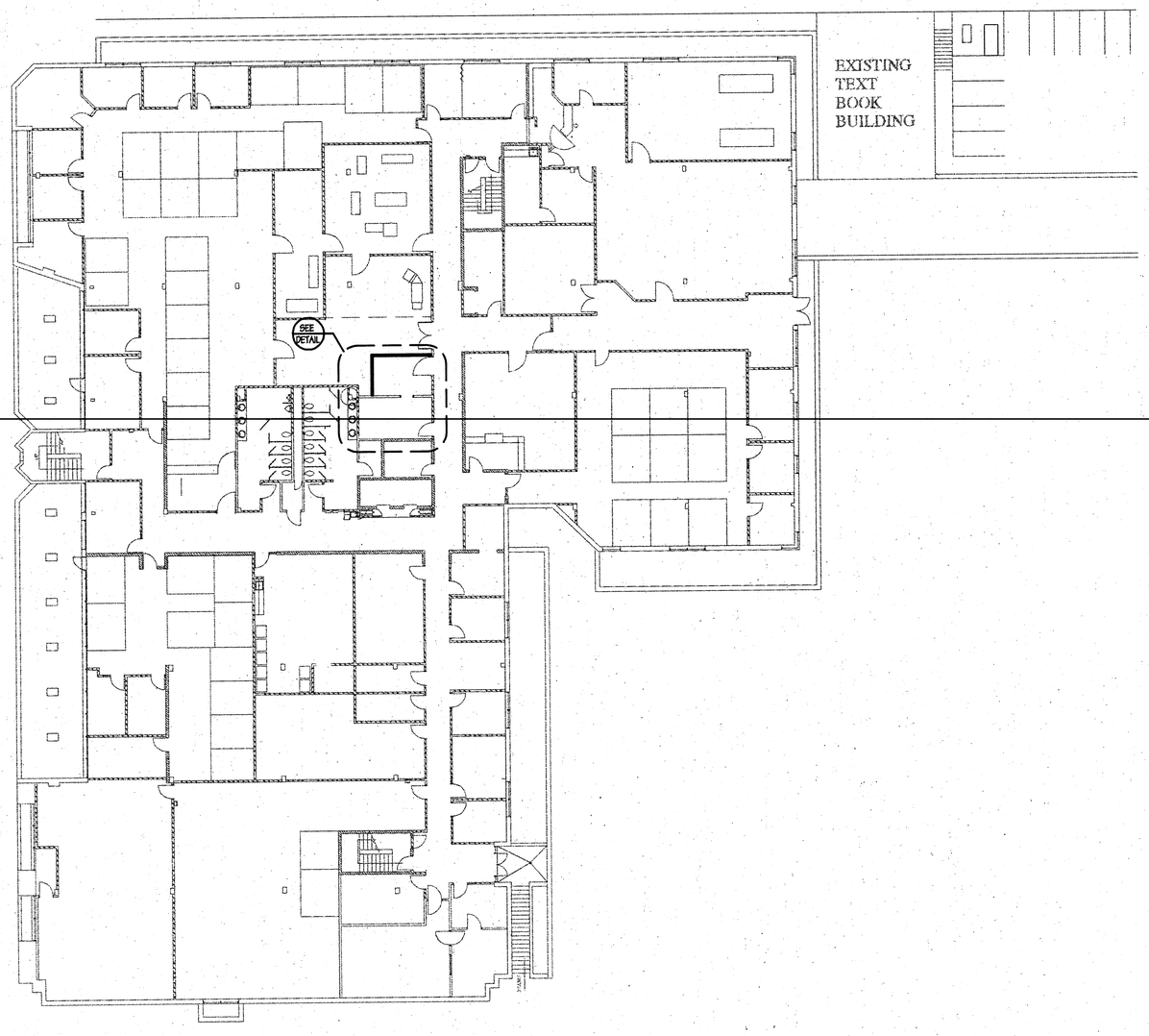
A. ALL DIMENSIONS TAKEN FROM FINISHED FACE OF NEW AND EXISTING WALLS.

B. IF A CONFLICT OCCURS BETWEEN DRAWINGS, DRAWINGS AND SPECIFICATIONS, SPECIFICATION SECTIONS AND DIVISIONS OR BETWEEN OTHER PARTS OF THESE CONSTRUCTION DOCUMENTS OR THESE DOCUMENTS AND ANY CODE REQUIREMENT, THE CONTRACTOR MAY REQUEST CLARIFICATION DURING THE BIDDING PERIOD. OTHERWISE THE MOST STRINGENT REQUIREMENTS SHALL APPLY AND BE PART OF THE CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

C. ALL WORK AND MATERIALS SHALL BE IN FULL CONFORMANCE WITH THE LATEST FEDERAL, STATE AND LOCAL CODES LAWS AND ORDINANCES. INCLUDING THEIR MOST RECENT REVISIONS, AMENDMENTS AND INTERPRETATIONS.

D. THE GENERAL CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT, FOR IMMEDIATE RESOLUTION, ANY NON-CONFORMING CONDITIONS WHICH MAY BE FOUND IN EXISTING FIELD CONDITIONS.

E. PATCH AND REPAIR ANY DAMAGE TO ANY SURFACE, EQUIPMENT ETC. NOT IN THIS SCOPE OF WORK.



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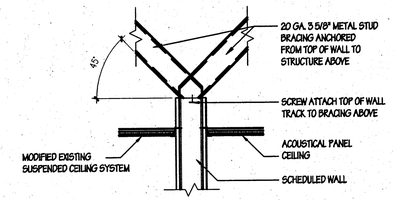
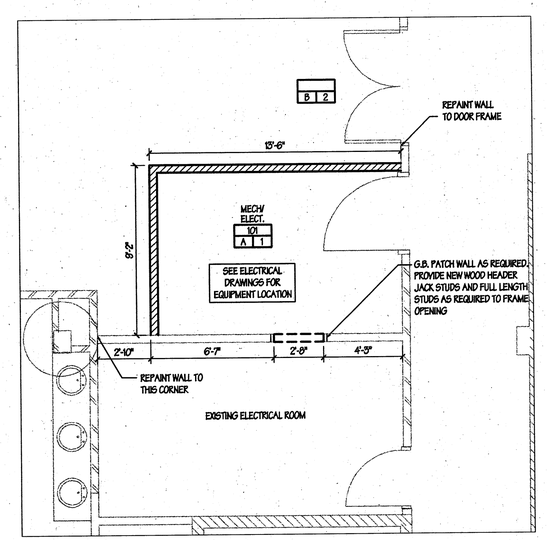
FLOOR PLAN-BASEMENT

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

NOTE:
SPACING OF BRACING SHALL NOT EXCEED 4'-0" O.C. STAGGERED



WALL BRACING DETAIL



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ENLARGED FLOOR PLAN

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

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ROBYN L. SMITH
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8-25-08

Board of Education

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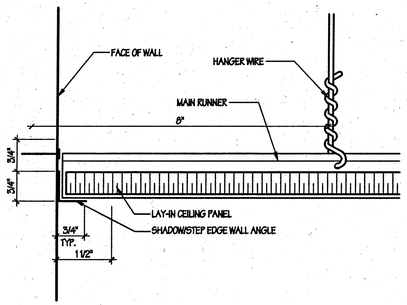
FLOOR PLAN

DATE:
AUGUST 25, 2008

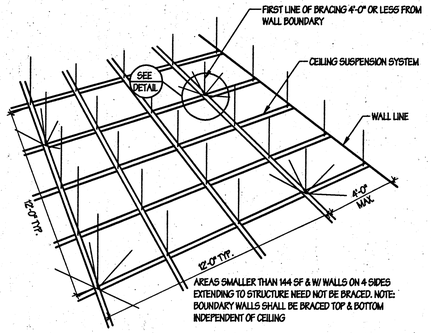
EELD #222

AE101



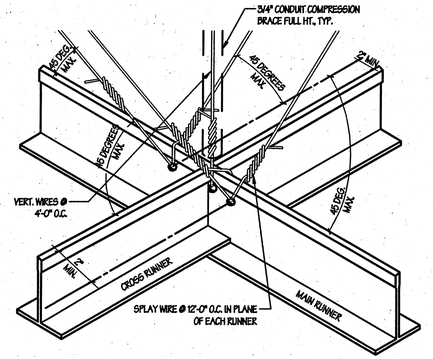
SUSPENDED CEILING EDGE DETAIL

SCALE: 6"=1'-0"



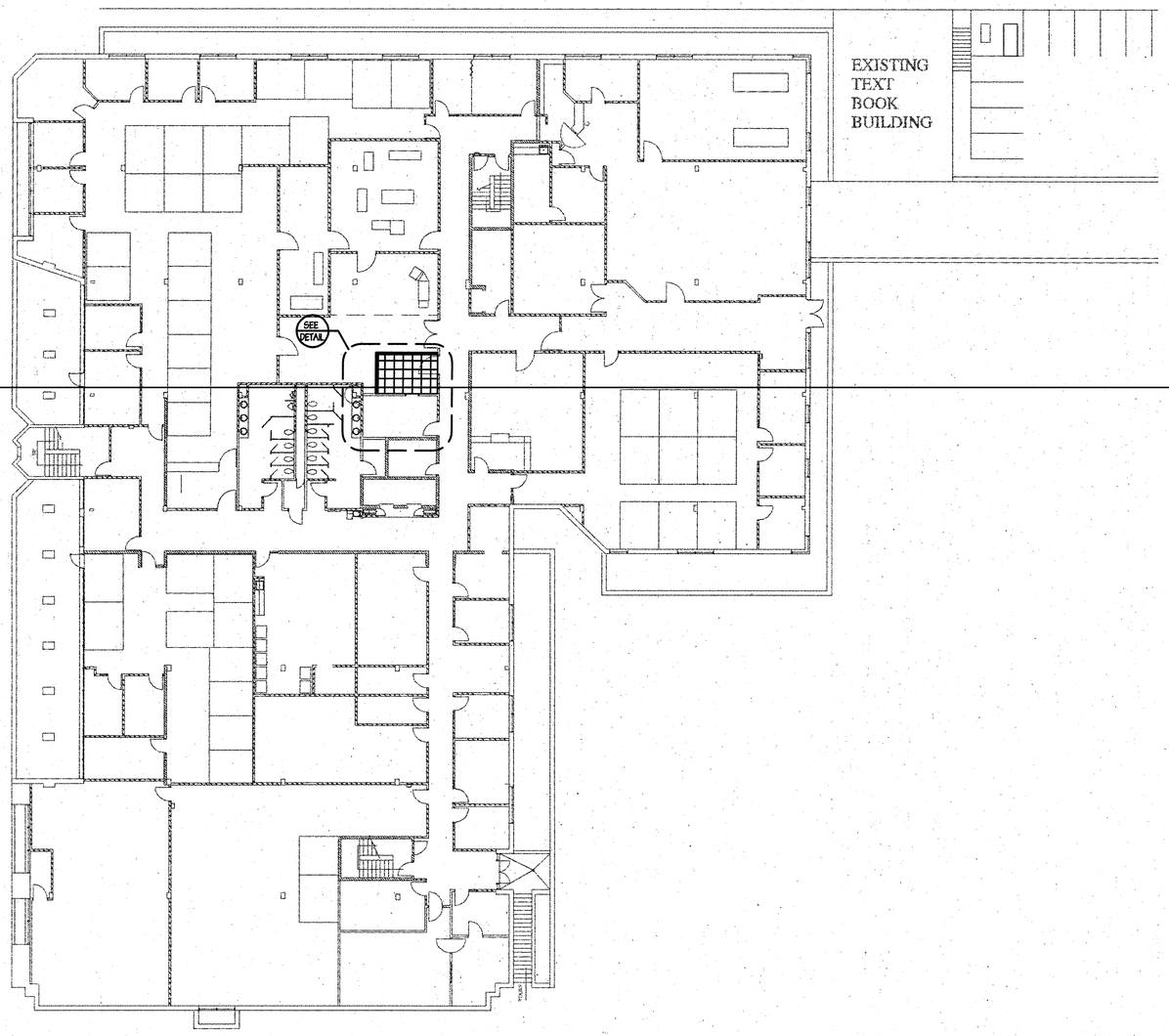
SUSPENDED CEILING DETAIL

NOT TO SCALE



SUSPENDED CEILING DETAIL

NOT TO SCALE



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REFLECTED CEILING PLAN-BASEMENT

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

GENERAL NOTES

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E. PATCH AND REPAIR ANY DAMAGE TO ANY SURFACE, EQUIPMENT ETC. NOT IN THIS SCOPE OF WORK.

CEILING SCHEDULE

CEILING TYPE — (A) ELEV. — ELEVATION ABOVE FINISHED FLOOR

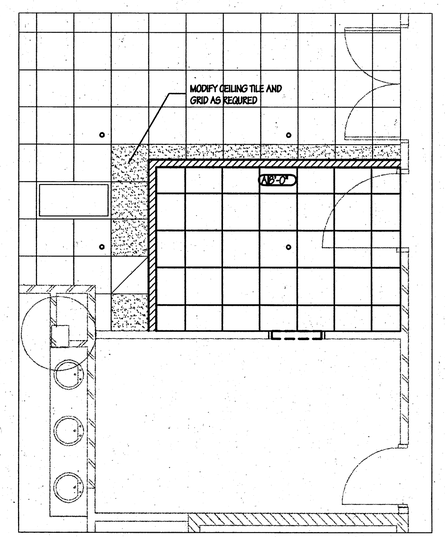
A. 2' x 2' LAY-IN ACOUSTICAL PANEL SYSTEM. SEE THIS SHEET FOR DETAILS.

SYMBOL LEGEND

EXISTING FLUORESCENT LIGHT FIXTURE

EXISTING RETURN AIR REGISTER

EXISTING SPRINKLER HEAD



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ENLARGED CEILING PLAN

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

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Board of Education

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SALT LAKE CITY, UTAH 84111

REFLECTED CEILING PLAN

DATE: AUGUST 25, 2008

EELD #222

AE110

General Mechanical Notes

1 - MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER TRADES.

2 - INSTALLATION SHALL BE IN CONFORMANCE WITH THE IBC, 2006 EDITION; IMC 2006 EDITION; IFGC, 2006 EDITION AND THE NEC, 2005 EDITION; ALL AS ADOPTED AND AMENDED BY THE STATE OF UTAH AND THE LOCAL JURISDICTION.

3 - THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP AND REMOVAL OF MECHANICAL DEBRIS.

4 - ARRANGE AND SCHEDULE INSPECTIONS IN A TIMELY MANNER WITH THE CONSTRUCTION SCHEDULE.

5 - UNLESS NOTED OTHERWISE, ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED STEEL AND SHALL CONFORM WITH THE SMACNA AND ASHRAE STANDARDS FOR THE PRESSURE CLASS OF DUCT BEING INSTALLED.

6 - UNLESS NOTED OTHERWISE, ALL SUPPLY AIR AND RETURN AIR DUCTWORK INSTALLED IN UNCONDITIONED AREAS OF THE BUILDING, (THIS EXCLUDES RETURN AIR PLENUMS) SHALL BE INSULATED WITH 1" THICK FOIL FACED DUCT WRAP.

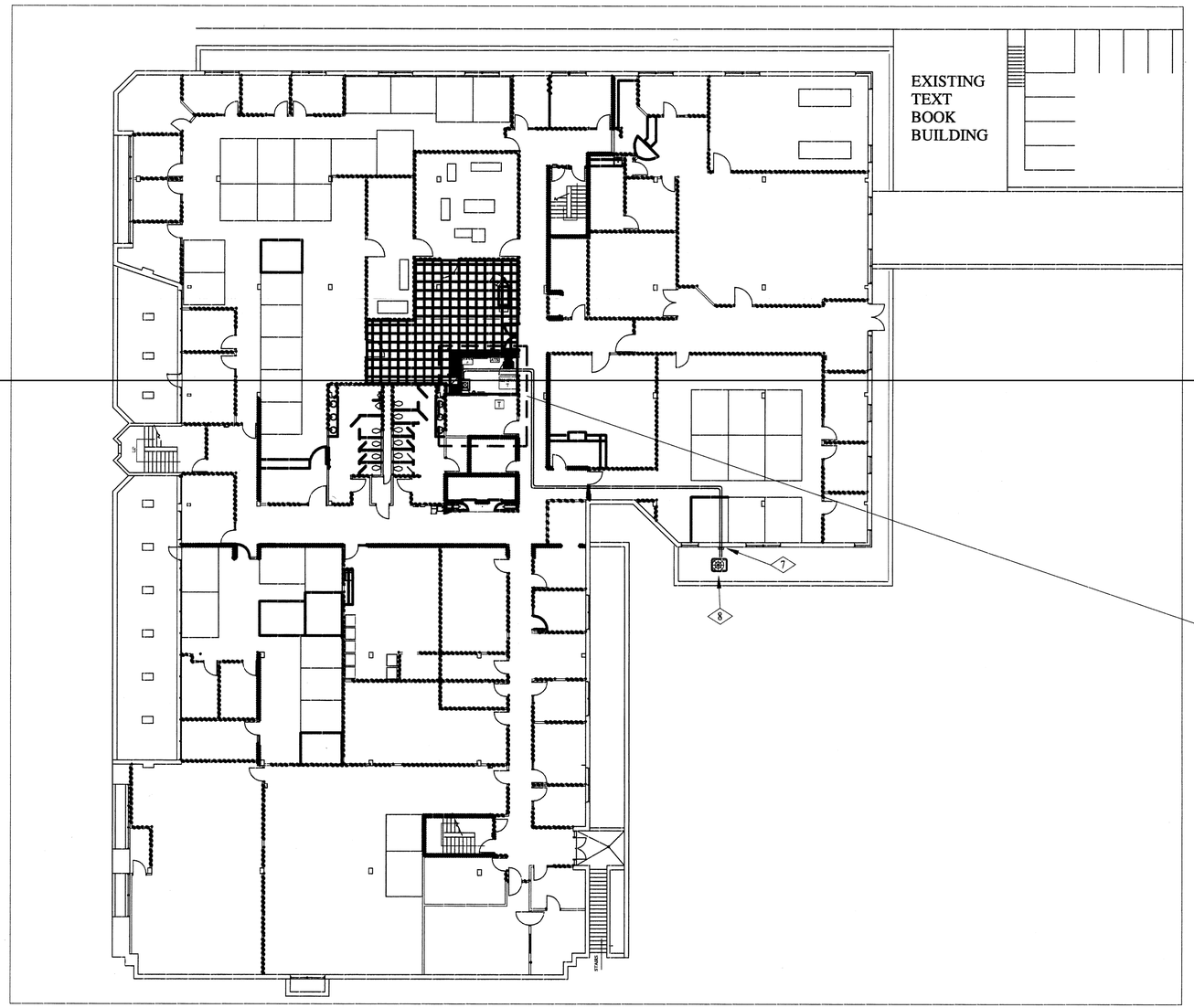
7 - MECHANICAL EQUIPMENT, MECHANICAL PIPING AND DUCTING SHALL BE SEISMICALY BRACED WHERE REQUIRED IN CONFORMANCE WITH THE IBC, 2006 EDITION.

8 - REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE EXACT LOCATION OF CEILING REGISTERS, GRILLES AND DIFFUSERS.

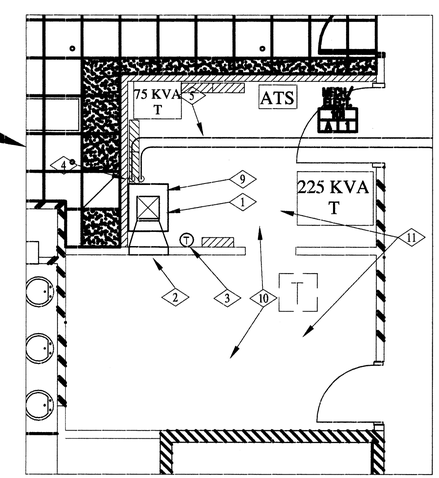
9 - UNLESS NOTED OTHERWISE, ALL DUCT SIZES SHOWN ARE INSIDE (FINISHED) DIMENSIONS. INCREASE DUCT SIZES FOR LINER TYPE INSULATION.

10 - ALL INTERIOR WORK, FRAMING, AND INTERIOR FINISH WORK IS TO BE PERFORMED BY OTHERS UNDER THE DIRECTION OF THE PROJECT ARCHITECT AND THE SUPERVISION OF THE GENERAL CONTRACTOR.

11 - ALL MECHANICAL EQUIPMENT SHALL BE UL LISTED.



N SITE PLAN - MECHANICAL
SCALE: 1/16"=1'-0"



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

REFERENCE NOTES:

1. FURNISH AND INSTALL 5-TON VERTICAL D-X FAN COIL UNIT WITH OPTIONAL BASE MOUNTED RETURN AIR PLENUM AND 2" FILTERS. ANCHOR UNIT TO FLOOR. COORDINATE LOCATION WITH ELECTRICAL EQUIPMENT AND PANELS. UNIT TO BE MAGIC AIR 60 BVX; 2000 CFM AT 0.50" ESP, 1 HP MOTOR, 120 VOLT. PROVIDE TXV ON REFRIGERANT LINES AT FAN COIL. MAXIMUM CABINET DIMENSIONS TO BE 30" WIDE X 26" DEEP X 60" HIGH. APPROVED ALTERNATE UNIT MEETING PERFORMANCE AND DIMENSIONAL REQUIREMENTS BY TRANE, FIRST, OR WILLIAMS.
2. OFFSET FROM THE TOP DISCHARGE OF THE FAN COIL UNIT, AND TRANSITION TO 24" X 24" AS SHOWN. CUT AN OPENING IN THE GYP BOARD WALL SO THAT THE 24" X 24" OPENING FACES INTO THE EXISTING PART OF THE ELECTRICAL ROOM. EXISTING CONDUITS RUNNING ACROSS THE FACE OF THE OPENING MAY REMAIN. SUPPLY AIR GRILLE IS NOT REQUIRED.
3. PROVIDE LOW VOLTAGE THERMOSTAT FOR NEW FAN COIL UNIT. SET THE THERMOSTAT SO THAT FAN RUNS AT ALL TIMES, AND THE CONDENSING UNIT CYCLES BASED ON A CALL FOR COOLING.
4. DROP REFRIGERANT LINES AT WALL AND CONNECT TO THE FAN COIL UNIT. MOUNT LINES ON WALL WITH MECHANICAL CHANNEL.
5. ROUTE REFRIGERANT LINES OVERHEAD TO CEILING OF CORRIDOR. HANG ON CLEVIS HANGERS. INSULATE SUCTION LINE. AVOID CONFLICTS WITH ELECTRICAL PANELS AND CONDUIT.
6. RUN REFRIGERANT LINES IN CEILING OF CORRIDOR. HANG ON CLEVIS HANGERS. INSULATE SUCTION LINE. FIELD VERIFY BEST ROUTE. COORDINATE WITH CONDENSING UNIT MANUFACTURER FOR SIZING OF REFRIGERANT LINES FOR THE LENGTH OF RUN.
7. CORE DRILL WALL AND RUN REFRIGERANT LINES DOWN FACE OF WALL, THEN TO CONDENSING UNIT. SUPPORT LINES ON WALL WITH MECHANICAL CHANNEL. INSTALL PRE-PAINTED ALUMINUM U-SHAPED COVER OVER THE EXPOSED LINES ON THE WALL.
8. HIGH EFFICIENCY SPLIT SYSTEM CONDENSING UNIT TO INCLUDE: R-410 REFRIGERANT; HERMETIC COMPRESSOR, MULTI-USE SERVICE VALVES, PROP. FAN, NOISE GUARD, LOW AMBIENT KIT, INTERNAL COMPRESSOR OVERLOAD PROTECTION, HEAD PRESSURE CONTROL, CRANKCASE HEATER, LIQUID LINE FILTER DRIER, FIVE YEAR LIMITED COMPRESSOR WARRANTY. 10 MCA, 15 AMP FUSE, 460 VOLT/3-PHASE. 336 LBS. TRANE 2TTB3060 OR APPROVED ALTERNATE BY YORK OR CARRIER. ANCHOR UNIT TO NEW CONCRETE PAD PROVIDED BY THIS CONTRACTOR.
9. FURNISH AND INSTALL "LITTLE GIANT " EC-400 CONDENSATE PUMP IN PAN OF FAN COIL UNIT. RUN 1/4" POLY TUBE TO NEAREST FLOOR DRAIN OR SERVICE SINK. PUMP REQUIRES 120 VOLTS / 20 WATTS. CONNECT TO 120 VOLT POWER TERMINAL BLOCK IN FAN COIL UNIT.
10. REMOVE EXISTING BRANCH DUCTWORK IN THIS ROOM, AND CAP DUCTS BACK AT SOURCE DUCT. TYPCIAL 3 PLACES.
11. INSTALL WIRE GUARDS ON EXISTING SPRINKLER HEADS. FIELD VERIFY LOCATION.

1220 SOUTH 300 WEST
SALT LAKE CITY, UTAH 84101
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EELD

STATE OF UTAH LICENSED PROFESSIONAL ENGINEER
STEVEN CLARKES LUSH
No. 155425
11/21/08

Board of Education

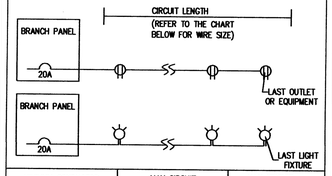
250 E. 500 S.
SALT LAKE CITY, UT 84111

FLOOR PLAN
MECHANICAL

DATE:
AUGUST 25, 2008

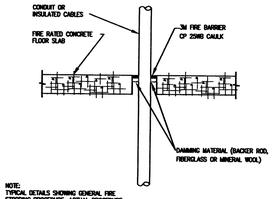
EELD #222

M-101



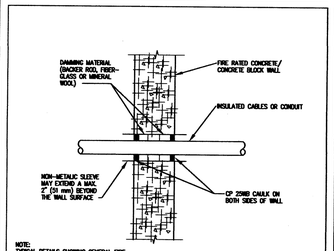
MINIMUM CONDUCTOR SIZE (PHASE AND NEUTRAL)	MAX CIRCUIT LENGTH (120 VOLT)	MAX CIRCUIT LENGTH (277 VOLT)
#12	75 FT	180 FT
#10	125 FT	260 FT
#8	205 FT	420 FT
#6	325 FT	660 FT
#4	400 FT	900 FT

TYPICAL BRANCH CIRCUIT LENGTH DETAIL — NTS



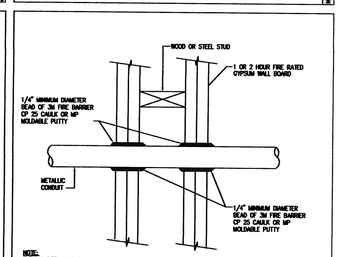
NOTE:
TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.

TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING — NOT TO SCALE



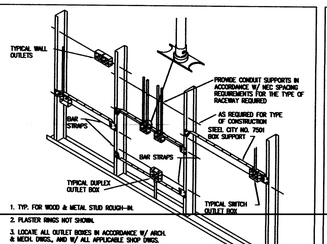
NOTE:
TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.

TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS — NOT TO SCALE



NOTE:
TYPICAL DETAILS SHOWING GENERAL FIRE STOPPING PROCEDURE. ACTUAL PROCEDURE DEPENDS UPON ANNULAR SPACE BETWEEN PIPE AND/OR INSULATION AND OPENING. FOLLOW MANUFACTURER'S INSTRUCTIONS.

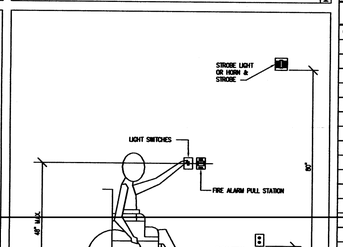
FIRESTOP FOR METAL CONDUIT THROUGH GYPSUM WALL BOARD — NOT TO SCALE



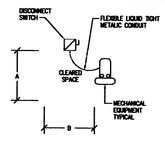
1. TYP. FOR WOOD & METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE W/ ARCH. & MECH. DWGS., AND W/ ALL APPLICABLE SHOP DWGS.

NOTES:
1. IN ACCORDANCE W/ IBC 711.3.2, OUTLETS ON OPPOSITE SIDES OF FIRE RATED WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY MIN. OF 24" HORIZONTAL DISTANCE.

TYPICAL ROUGH-IN DETAIL — NOT TO SCALE



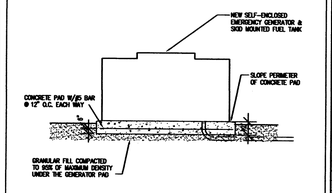
STANDARD HEIGHTS FOR HANDICAPPED ACCESS — NOT TO SCALE



NOTE:
1. THE CONTRACTOR MUST COORDINATE EXACT LOCATION OF THE DISCONNECT WITH THE MECHANICAL CONTRACTOR TO ELIMINATE ANY OBSTACLE (PIPE,CONCRETE PAD ETC.) IN FRONT OF THE DISCONNECT. IF THERE ARE ANY OBSTACLES, PROVIDE UNISTRUT AND INSTALL THE DISCONNECT NEXT TO MECHANICAL EQUIPMENT IN ORDER TO PROVIDE THE REQUIRED CLEARANCE.
2. PROVIDE MINIMUM CLEARANCE AS FOLLOWS:

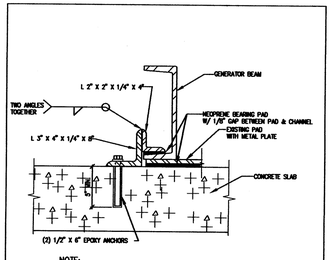
SYSTEM VOLTAGE	A	B
480	42"	30"
208	36"	30"

TYPICAL DISCONNECT CLEARANCE REQUIREMENTS — NOT TO SCALE



SCALE: N.T.S.

SECTION-GENERATOR PAD



NOTE:
APPROVED ANCHOR SYSTEMS ARE HILTI HVA, HILTI HIT, AND RAWLET EPCON.

GENERATOR SEISMIC BRACING DETAIL — NOT TO SCALE

Main Distribution Panelboard (MDP)

Amps 1200A Main Breaker Volts 480 Phase 3 Wires 4

Circuit	Breaker Size	Pole	VA	Equipment or Area Served	Remarks
1	300A	3		EXISTING	VERIFY BREAKER SIZE PRIOR ORDER
2	300A	3		EXISTING	VERIFY BREAKER SIZE PRIOR ORDER
3	600A	3		EXISTING	VERIFY BREAKER SIZE PRIOR ORDER
4	225A	3		EXISTING	VERIFY BREAKER SIZE PRIOR ORDER
5	350A	3		NEW 225KVA TRANSFORMER	
6	100A	3		SPARE	
7	150A	3		SPARE	
8	200A	3		SPARE	
9	225A	3		PANEL "L08"	
10	60A	3		TVSS	
11				SPACE	
12				SPACE	
13				SPACE	
14				SPACE	
15				SPACE	

Total VA 0 Total Amp 0

Main Distribution Panelboard
To be free standing, 1200A amp, 3 phase, 480 volts with full neutral and half size ground bus. Square-d powerstyle QED-2 with 117 in. double row branch circuit breakers mounting space. Switchboard shall be braced for minimum of 50,000 AIC. Provide a digital meter to indicate voltage, current, frequency and harmonic distortion on each mode

PANEL "L08"

AMPS 225 MAIN LUGS ONLY VOLTS 277 / 480 PHASE 3 WIRES 4 MOUNTING SURFACE LOCATION

BREAKER A	BREAKER P	DESCRIPTION	CIRCUIT VA	CIRCUIT NO	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT NO	CIRCUIT VA	DESCRIPTION	BREAKER A	BREAKER P
20	1	NEW OUTLET	1000	1	1000			2				
20	1	SPARE		3		0		4		SPARE	20	3
20	1	SPARE		5			0	6				
20	1	SPARE		7	0			8				
20	1	SPARE		9		0		10		SPARE	30	3
20	1	SPARE		11			0	12				
20	1	SPARE		13	0			14				
20	1	SPARE		15		0		16		SPARE	50	3
20	1	SPARE		17			0	18				
20	1	SPARE		19	0			20		SPARE	20	1
20	1	SPARE		21		0		22		SPARE	20	1
20	1	SPARE		23			0	24		SPARE	20	1
20	1	SPARE		25	0			26		SPARE	20	1
20	1	SPARE		27		0		28		SPARE	20	1
20	1	SPARE		29			0	30		SPARE	20	1
20	1	SPARE		31	0			32		SPARE	20	1
20	1	SPARE		33		0		34		SPARE	20	1
20	1	SPARE		35			0	36		SPARE	20	1
20	1	SPARE		37	0			38		SPARE	20	1
20	1	SPARE		39		0		40		SPARE	20	1
20	1	SPARE		41			0	42		SPARE	20	1
AIC 30KA		STYLE NH			1000	0	0			TOTAL LOAD 1000 VA		
										1 AMPS		

PANEL "E2L08"

AMPS 200 MAIN BREAKER VOLTS 277 / 480 PHASE 3 WIRES 4 MOUNTING SURFACE LOCATION

BREAKER A	BREAKER P	DESCRIPTION	CIRCUIT VA	CIRCUIT NO	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT NO	CIRCUIT VA	DESCRIPTION	BREAKER A	BREAKER P
20	1	SPARE		1	0			2				
20	1	SPARE		3		0		4		75KVA TRANSFER	125	3
20	1	SPARE		5			0	6				
20	1	SPARE		7	0			8				
20	1	SPARE		9		0		10		SPARE	50	3
20	1	SPARE		11			0	12				
20	1	SPARE		13	0			14				
20	1	SPARE		15		0		16		SPARE	70	3
20	1	SPARE		17			0	18				
20	1	SPARE		19	0			20				
20	1	SPARE		21		0		22		TVSS	50	3
20	1	SPARE		23			0	24				
20	1	SPARE		25	0			26		SPARE	20	1
20	1	SPARE		27		0		28		SPARE	20	1
20	1	SPARE		29			0	30		SPARE	20	1
20	1	SPARE		31	0			32		SPARE	20	1
20	1	SPARE		33		0		34		SPARE	20	1
20	1	SPARE		35			0	36		SPARE	20	1
20	1	SPARE		37	0			38		SPARE	20	1
20	1	SPARE		39		0		40		SPARE	20	1
20	1	SPARE		41			0	42		SPARE	20	1
AIC 30KA		STYLE NH			0	0	0			TOTAL LOAD 0 VA		
										0 AMPS		

ELECTRICAL SYMBOLS LIST

SYMBOL	DESCRIPTION
	LIGHTING SYMBOLS
	RECESSED FLUORESCENT FIXTURE
	SURFACE MOUNTED FLUORESCENT FIXTURE
	INDUSTRIAL STRIP LIGHT
	RECESSED FIXTURE
	WALL MOUNTED FIXTURE
	LIGHT FIXTURE WITH NIGHT LIGHT
E	FIXTURE ON EMERGENCY POWER
	EXIT LIGHT- ARROWS SHOW EXIT DIRECTION
12	LIGHTING FIX CALL OUT. NUMBER INDICATES A SUGGESTED QUANTITY- TO BE VERIFIED
4	REFERENCE NOTES CALL OUT
	SINGLE POLE TOGGLE SWITCH - 20 AMP
a,b	SINGLE POLE TOGGLE SWITCH - 20 AMP LETTERS INDICATE SWITCH ASSIGNMENT
	POWER SYMBOLS
	DUPLEX CONVENIENCE OUTLET - 20 AMP
	DUPLEX CONVENIENCE OUTLET - 20 AMP GFI,
	FOUR - PLEX CONVENIENCE OUTLET - 20 AMP
J	JUNCTION BOX - SIZE AND FUNCTION AS REQUIRED
	EACH ARROW INDICATES A HOME RUN. RUN GROUND CONDUCTOR REGARDLESS OF CONDUIT TYPE. NUMBER OF CONDUCTORS AS REQUIRED
N	FUSED DISCONNECT SWITCH - SIZE AS REQUIRED
	FLUSH TELEPHONE, DATA OUTLET
	FLUSH TELEPHONE OUTLET
	FLUSH DATA OUTLET
	MOTOR LOCATION
MC	MECHANICAL EQUIPMENT CALL OUT
	MANUAL DISCONNECT WITH THERMAL OVERLOAD PROTECTION
	ELECTRICAL PANEL LOCATION
	SPECIAL SYSTEMS SYMBOLS
	CALL BUTTON
EP	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER
S	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR
H	FIRE ALARM HORN WITH STROBE HIGH DECIBEL
	GENERAL NOTE SYMBOLS
WP	INDICATES WEATHER PROOF EQUIPMENT
WG	INDICATES DEVICES WITH LOW PROFILE WIRE GUARD. SUBMIT APPROVAL
CLG	INDICATES DEVICES MOUNTED ON THE CEILING, COORDINATE LOCATION WITH THE ARCHITECT.

PANEL "DP08"

AMPS 800 MAIN BREAKER VOLTS 120 / 208 PHASE 3 WIRES 4 MOUNTING SURFACE LOCATION

BREAKER A	BREAKER P	DESCRIPTION	CIRCUIT VA	CIRCUIT NO	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT NO	CIRCUIT VA	DESCRIPTION	BREAKER A	BREAKER P
600	3	PANEL "SDP2"		1	0			2				
				3		0		4		SPARE	50	3
				5			0	6				
100	3	SPARE		7	0			8				
				9		0		10		PANEL "P08"	225	3
				11			0	12				
125	3	SPARE		13	0			14				
				15		0		16		TVSS	50	3
				17			0	18				
		SPACE		19	0			20		SPACE		
		SPACE		21		0		22		SPACE		
		SPACE		23			0	24		SPACE		
		SPACE		25	0			26		SPACE		
		SPACE		27		0		28		SPACE		
		SPACE		29			0	30		SPACE		
		SPACE		31	0			32		SPACE		
		SPACE		33		0		34		SPACE		
		SPACE		35			0	36		SPACE		
		SPACE		37	0			38		SPACE		
		SPACE		39		0		40		SPACE		
		SPACE		41			0	42		SPACE		
AIC 22KA		STYLE HJNE			0	0	0			TOTAL LOAD 0 VA		
										0 AMPS		

*NEW BREAKERS SHALL BE SERIES RATED WITH EXISTING DOWNSTREAM BREAKERS FOR 22K AIC
*PROVIDE 200% NEUTRAL BUSBAR

PANEL "P08"

AMPS 225 MAIN LUGS ONLY VOLTS 120 / 208 PHASE 3 WIRES 4 MOUNTING SURFACE LOCATION

BREAKER A	BREAKER P	DESCRIPTION	CIRCUIT VA	CIRCUIT NO	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT NO	CIRCUIT VA	DESCRIPTION	BREAKER A	BREAKER P
20	1	EXTERIOR OUTLET		1	0			2				
20	1	SPARE		3		0		4		SPARE	50	3
20	1	SPARE		5			0	6				
20	1	SPARE		7	0			8				
20	1	SPARE		9		0		10		SPARE	70	3
20	1	SPARE		11			0	12				
20	1	SPARE		13	0			14				
20	1	SPARE		15		0		16		SPARE	100	3
20	1	SPARE		17			0	18				
20	1	SPARE		19	0			20		SPARE	20	1
20	1	SPARE		21		0		22		SPARE	20	1
20	1	SPARE		23			0	24		SPARE	20	1
20	1	SPARE		25	0			26		SPARE	20	1
20	1	SPARE		27		0		28		SPARE	20	1
20	1	SPARE		29			0	30		SPARE	20	1
20	1	SPARE		31	0			32		SPARE	20	1
20	1	SPARE		33		0		34		SPARE	20	1
20	1	SPARE		35			0	36		SPARE	20	1
20	1	SPARE		37	0			38		SPARE	20	1
20	1	SPARE		39		0		40		SPARE	20	1
20	1	SPARE		41			0	42		SPARE	20	1
AIC 22KA		STYLE NQOD			0	0	0			TOTAL LOAD 0 VA		
										0 AMPS		

*PROVIDE 200% NEUTRAL BUSBAR

PANEL "E2P08"

AMPS 300 MAIN BREAKER VOLTS 120 / 208 PHASE 3 WIRES 4 MOUNTING SURFACE LOCATION

BREAKER A	BREAKER P	DESCRIPTION	CIRCUIT VA	CIRCUIT NO	PHASE LOADS A	PHASE LOADS B	PHASE LOADS C	CIRCUIT NO	CIRCUIT VA	DESCRIPTION	BREAKER A	BREAKER P
20	1	BATTERY CHARGER		1	0			2				
20	1	BLOCK HEATER		3		0		4		SPARE	50	3
20	1	GENERATOR LOWER		5			0	6				
20	1	GENERATOR HEATER		7	0			8				
20	1	SPARE		9		0		10		SPARE	70	3
20	1	SPARE		11			0	12				
20	1	SPARE		13	0			14				
20	1	SPARE		15		0		16		SPARE	100	3
20	1	SPARE		17			0	18				
20	1	SPARE		19	0			20		SPARE	20	1
20	1	SPARE		21		0		22		SPARE	20	1
20	1	SPARE		23			0	24		SPARE	20	1
20	1	SPARE		25	0			26		SPARE	20	1
20	1	SPARE		27		0		28		SPARE	20	1
20	1	SPARE		29			0	30		SPARE	20	1
20	1	SPARE		31	0			32		SPARE	20	1
20	1	SPARE		33		0		34		SPARE	20	1
20	1	SPARE		35			0	36		SPARE	20	1
20	1	SPARE		37	0			38		SPARE	20	1
20	1	SPARE		39		0		40		SPARE	20	1
20	1	SPARE		41			0	42		SPARE	20	1
AIC 10KA		STYLE NQOD			0	0	0			TOTAL LOAD 0 VA		
										0 AMPS		

* PROVIDE 200% NEUTRAL BUSBAR

GENERAL NOTES:

1. MINIMUM SIZE OF CONDUIT IS 3/4". A 1/2" CONDUIT MAY BE USED FOR CONTROL CABLES.
2. USE RIGID STEEL, SET SCREW TYPE FITTINGS ONLY. DIE CAST FITTING SHALL NOT BE USED.
3. SUPPORT THE LAY-IN TYPE FIXTURES FROM THE CEILING DECK INDEPENDENT OF THE CEILING GRID. AS SHOWN ON THE TYPICAL RECESSED FIXTURE MOUNTING DETAIL.
4. ALL NEW WORK MUST MEET THE CURRENT ADOPTED NATIONAL ELECTRICAL CODE.
5. NOT MORE THAN THREE (3) CIRCUITS SHALL BE INSTALLED IN A 3/4" CONDUIT.
6. THE SIZE OF THE NEUTRAL CONDUCTORS SHALL BE A NO. 10 AWG MINIMUM FOR ALL HOMERUNS WITH A COMMON NEUTRAL (LIGHTING AND POWER CIRCUITS).
7. THE MINIMUM SIZE OF THE CONDUCTORS SHALL BE A NO. 12 AWG, THHN COPPER. UNLESS INDICATED OTHERWISE THE DRAWINGS.
8. ALL J-BOXES SHALL HAVE A MINIMUM DEPTH OF 2-1/8" UNLESS OTHER WISE SPECIFIED. SECURE ALL J-BOXES AS SHOWN IN THE DETAILS. FURNISH AND INSTALL PROPER MUD RINGS.
9. ALL THE HOMERUNS MUST BE ACCESSIBLE. DO NOT CARRY A HOMERUN FROM ONE DEVICE TO ANOTHER WHICH IS TIED TO A SEPARATE HOMERUN INSIDE THE WALL. MARK ON ALL THE J-BOXES THE CIRCUIT NAMES AND NUMBERS. USE NO. 10 THHN CONDUCTORS FOR HOMERUNS OVER 100 FEET IN LENGTH, NO. 8 THHN FOR OVER 200 FEET, AND NO. 4 THHN FOR OVER 400 FEET.
10. USE EPOXY ANCHORS TO SUPPORT THE ELECTRICAL EQUIPMENT. EXPANSION ANCHOR BOLTS ARE NOT ACCEPTABLE.
11. AT THE END OF THE JOB, PROVIDE BLANK, MATCHING COVERPLATES FOR ALL J-BOXES WHERE DEVICES HAVE NOT YET BEEN INSTALLED.
12. SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH WALLS AND CEILINGS WITH A FIRE RATED MATERIAL. 3M IS AN APPROVED MANUFACTURER.
13. ALL DISCONNECTS SHALL BE OF A HEAVY DUTY TYPE.
14. ALL MATERIALS USED IN INSTALLATION SHALL BE U.L. APPROVED AND NEW.
15. ALL ELECTRICAL WIRING MUST BE IN A CONDUIT (ROMEX NOT PERMITTED).
16. NO CONDUITS SHALL RUN IN DUCT WORK.
17. PRIOR TO SUBMITTAL FOR A BID THE ELECTRICAL CONTRACTOR SHALL INSPECT THE SITE AND INCLUDE IN THEIR BID PACKAGE ALL CHARGES DUE TO EXISTING CONDITIONS. SHOP DRAWINGS ARE REQUIRED. ALL LABOR, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF 1 YEAR FROM THE DATE OF ACCEPTANCE BY THE TENANT. REPLACE OR REPAIR ALL DEFECTS DURING THE GUARANTEED PERIOD.
18. THE ELECTRICAL CONTRACTOR SHALL TERMINATE THE ELECTRICAL COLLECTIONS TO ALL THE EQUIPMENT BY PROVIDING THE NECESSARY MALE/ FEMALE CONNECTOR, RECEPTACLE, PLUG, ETC.
19. ALL DUPLEX OUTLETS AND SWITCHES SHALL BE 20 AMP, 120 VOLT SPEC GRADE. HUBBELL AND PASS & SEYMOUR AND LOCATION ARE APPROVED MANUFACTURERS.
20. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE MECHANICAL CONTRACTOR SO THAT NO PIPING, DUCTS, OR OTHER EQUIPMENT SHALL BE INSTALLED IN THE ENTRY, PASS THROUGH ELECTRICAL ROOM OR SPACES ABOVE OR BELOW ELECTRICAL PANELS.
21. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENT, ETC.) OF EQUIPMENT FURNISHED UNDER OTHER DIVISIONS WITH APPROVED SHOP DRAWINGS.
22. THE CONTRACTOR SHALL INFORM THE ARCHITECT/ ENGINEER, IN WRITING, OF ANY DISCREPANCIES FOUND BETWEEN THE INTENDED FUNCTION OF EQUIPMENT AND EQUIPMENT SPECIFIED IN THE CONTRACT DOCUMENTS WITH A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ISSUANCE OF THE FINAL ADDENDUM. FAILURE TO REPORT ANY DISCREPANCY(CATALOG NUMBERS, DISCONTINUED ITEMS, ETC.) DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING EQUIPMENT WHICH SHALL CONFORM TO AND FULFILL THE INTENT OF THE CONTRACT DOCUMENTS. NOR SHALL IT BE USED AS A CONDITION TO OBTAIN ADDITIONAL FUNDS FROM THE OWNER AFTER THE CONTRACT IS AWARDED. THE CONTRACTOR SHALL REQUEST ALL CLARIFICATIONS OF CONTRACT DOCUMENT REQUIREMENTS, IN WRITING, TO THE ARCHITECT/ ENGINEER WITH A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ISSUANCE OF THE FINAL ADDENDUM.
23. PROVIDE A TYPED LABEL FOR ALL DUPLEX OUTLETS AND LIGHT SWITCHES TO INDICATE WHICH CIRCUIT THEY ARE TIED TO.
24. IF POSSIBLE, MOUNT EXIT SIGN INDICATED NEAR A WALL ON THE WALL.
25. SWITCHBOARDS, PANELBOARDS, AND MOTOR CONTROL CENTERS 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 PERSON'S BEFORE EXAMINATION, ADJUSTMENT, SER VICING, OR MAINTENANCE OF THE EQUIPMENT. (NEC 110-16)
26. THE CONTRACTOR IS ALLOWED TO UTILIZE MC CABLE WITH GROUND IN A CONCEALED AREA ONLY.
27. CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER SHOP DRAWINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
28. DETAILS ARE SHOWN ON DIFFERENT SHEETS. THE CONTRACTOR SHALL REFER TO THOSE DETAILS WHETHER OR NOT CALLED IN REFERENCE NOTES.
29. LIGHT FIXTURES PENETRATING FIRE RATED CEILING/WALL SHALL BE PROVIDED WITH A FIRE RATED TENT. COORDINATE WITH GENERAL CONTRACTOR FOR MORE INFORMATION.
30. PROVIDE WARNING TAPE OVER ALL UNDERGROUND POWER CABLES SHOWN ON SITE PLAN.
31. ALL UNDERGROUND CONDUITS SHALL BE BURIED 24 INCHES MINIMUM UNDER THE GROUND.
32. THE FIRST 10 FEET OF ALL BURIED CONDUITS, 1 INCH AND OVER IN DIAMETER, ARE TO BE RIGID GALVANIZED STEEL. WHERE THEY ARE ENTERING OR LEAVING THE BUILDING, MAN HOLE, VAULT, ETC. ALL METALLIC UNDERGROUND CONDUITS SHALL HAVE PVC COATING.
33. ALL NEW EXPOSED CONDUITS MUST RUN AGAINST THE WALL OR CEILING. DO NOT PENDANT MOUNT ANY CONDUIT FROM THE CEILING.
34. ALL CONDUITS EXPOSED TO THE WEATHER AND IN THE MECHANICAL ROOM SHALL BE GALVANIZED RIGID STEEL UNLESS OTHER WISE NOTED.
35. ALL METALLIC CONDUITS, JOINTS, FITTINGS, ETC. IN CONTACT WITH THE GROUND SHALL BE SPIRAL WRAPPED WITH 3M SCOTCH RAP-51, 20 MIL TAPE (OR APPROVED EQUAL). 1/2" OVERLAP IS REQUIRED.

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GENRAL NOTES, DETAILS AND PANEL SCHEDULES

EELD #222

DATE: AUG, 25, 2008

EE001

REFERENCE NOTES: POWER

1. FURNISH AND INSTALL A NEW 200 AMP, 3POLE, CIRCUIT BREAKER IN THE EXISTING PANEL "IGDP" TO FEED THE ATS. THE NEW BREAKER SHALL HAVE THE SAME AIC RATING AS THE EXISTING BREAKERS IN THE PANEL. MAKE ANY MODIFICATIONS NECESSARY TO INSTALL THE NEW BREAKER IN THE EXISTING PANEL. FIELD VERIFY PRIOR TO BID.

2. DISCONNECT THE POWER AND REPLACE THE EXISTING DISTRIBUTION PANEL "MDP". LOCATE THE NEW PANEL IN THE SAME LOCATION AS THE EXISTING PANEL. TRANSFER ALL EXISTING LOAD TO THE NEW PANEL. DO NOT SPLICE THE INCOMING OR THE BRANCH CIRCUIT CONDUCTORS IF POSSIBLE. POWER SHUT DOWN CAN ONLY BE DONE ON FRIDAY NIGHT AFTER 6:00 P.M. TO SATURDAY NIGHT. THE CONTRACTOR IS TO SUBMIT METHOD OF PROCEDURE FOR THE CHANGE OVER FOR APPROVAL. THE CONTRACTOR IS TO MEET AND COORDINATE THIS WORK WITH THE POWER COMPANY AS SOON AS THE CONTRACT AS BEEN AWARDED. THE CONTRACTOR IS TO MEASURE THE EXISTING GROUND FAULT CURRENT AND ADJUST THE GROUND FAULT SENSOR FOR THE MAIN BREAKER ACCORDINGLY. FIELD VERIFY EXISTING BREAKER AND CONDUCTOR SIZES PRIOR TO BID.

3. RUN A 3/4" CONDUIT FOR COMMUNICATION FROM ATS TO THE GENERATOR. EITHER ATS' SHALL BE ABLE TO START THE GENERATOR.

4. AS ADDITIVE ALTERNATE BID # 1, CHANGE THE TWO NEW DRY TYPE TRANSFORMERS FROM STANDARD TO HARMONIC MITIGATION TRANSFORMERS. TO BE EQUAL TO SYNERGY ENERGY HS-225-0-480-208-80-60-N3R-GRY FOR 225KVA AND EQUAL TO HS-75-0-480-208-80-60-N3R-GRY FOR 75 KVA TRANSFORMER. SYNERGY ENERGY, POWER SMITH, SQUARE-D, AND MIRUS ARE THE APPROVED MANUFACTURERS. THE TRANSFORMER DIMENSION SHALL NOT EXCEED 34"Hx30"Wx24"D FOR 75KVA AND 48"Hx45"Wx30"D FOR 225KVA TRANSFORMER.

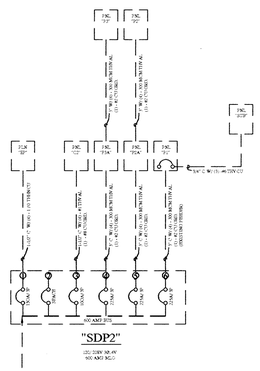
5. AS ADDETIVE ALTERNATE BID #2, FURNISH AND INSTALL TVSS'S SHOWN.

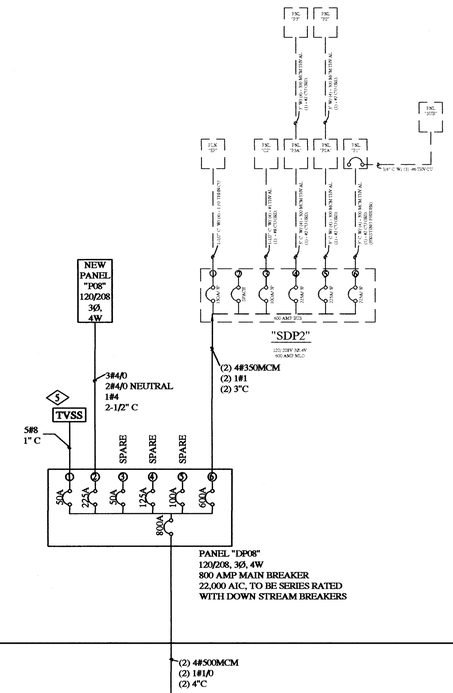
6. PROVIDE A 100AMP AND A 200 AMP 3 POLE BREAKER ON THE GENERATOR.

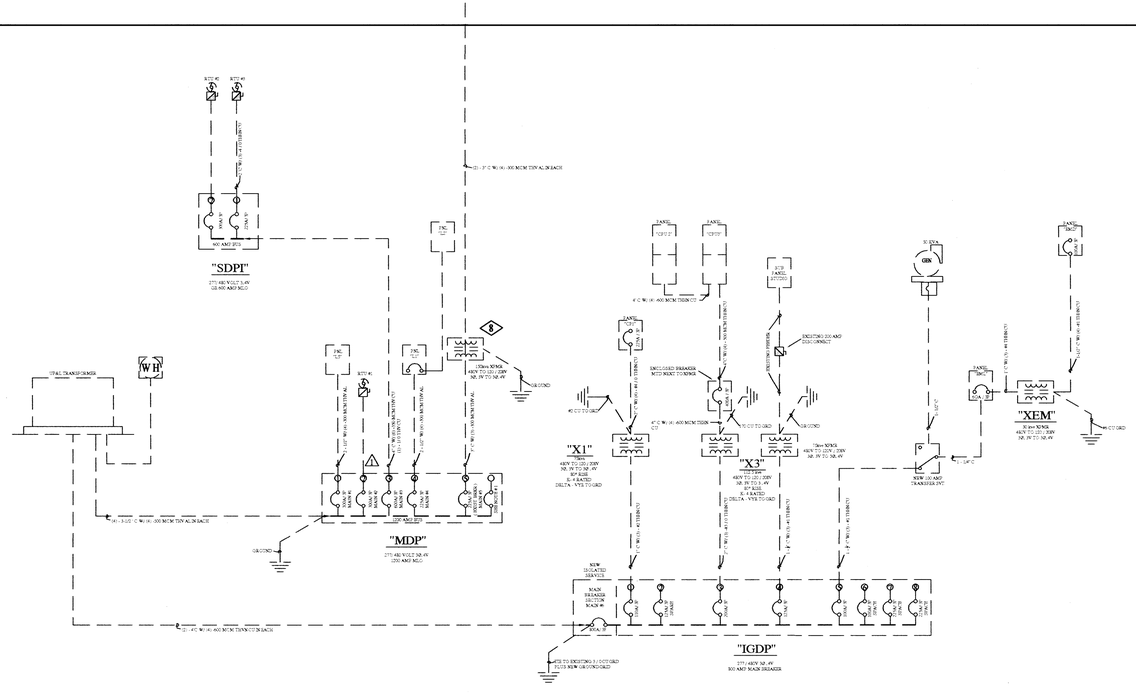
7. PROVIDE A 4" CONCRETE PAD UNDER THE NEW TRANSFORMERS.

8. EXISTING 150KVA TRANSFORMER TO BE REMOVED. DELIVER THE TRANSFORMER TO STATE'S SURPLUS WAREHOUSE.

9. EXTEND THE CONDUCTORS FROM THE EXISTING GENERATOR TO THE NEW GENERATOR. INSTALL THE SPLICE BOX INSIDE THE BUILDING AND RUN NEW CONDUCTORS TO THE NEW 100 AMP BREAKER SHOWN. PROVIDE CONDUIT, CONDUCTORS, J-BOX, ETC. FOR A COMPLETE INSTALLATION.

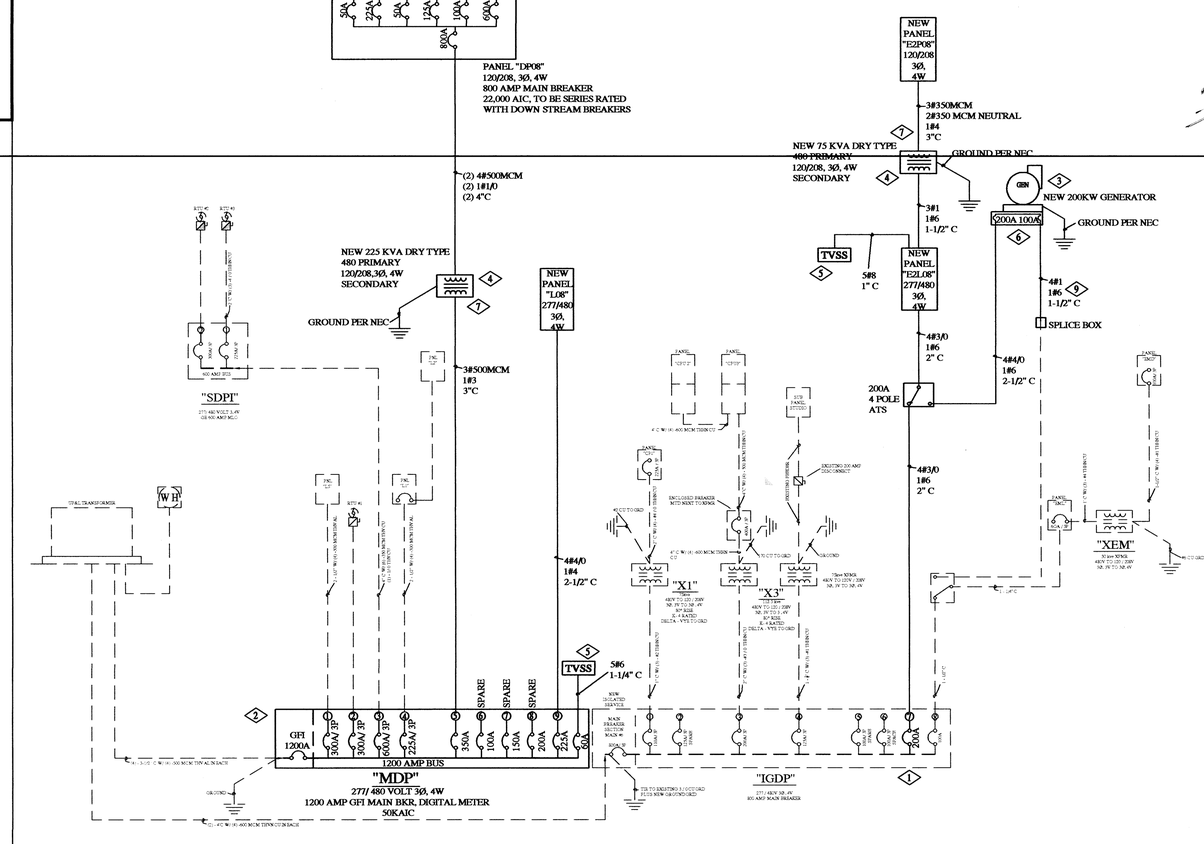






EXISTING PARTIAL POWER SINGLE LINE DIAGRAM

NOT TO SCALE



NEW PARTIAL POWER SINGLE LINE DIAGRAM

NOT TO SCALE

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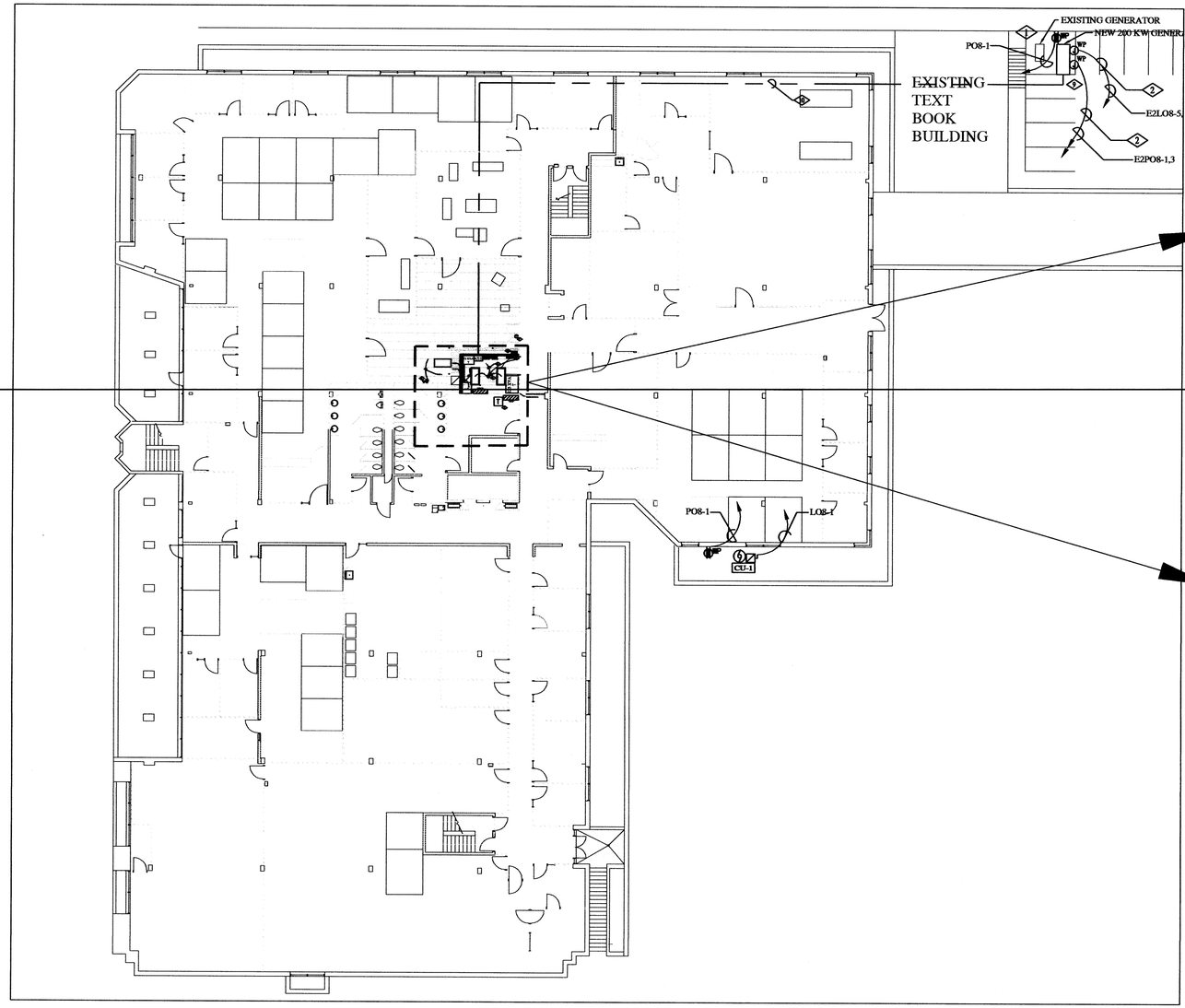
POWER SINGLE LINE DIAGRAM

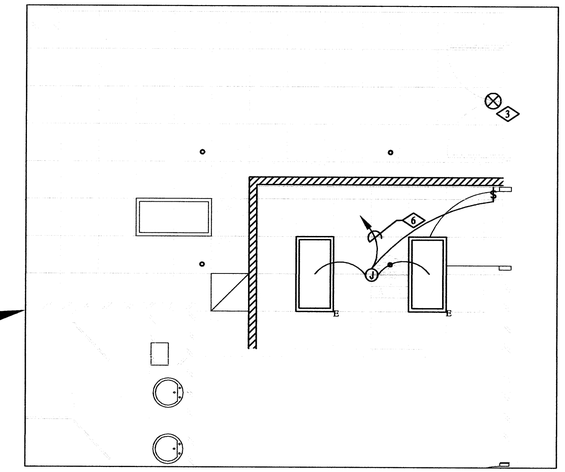
EELD #222

DATE: AUG, 25, 2008

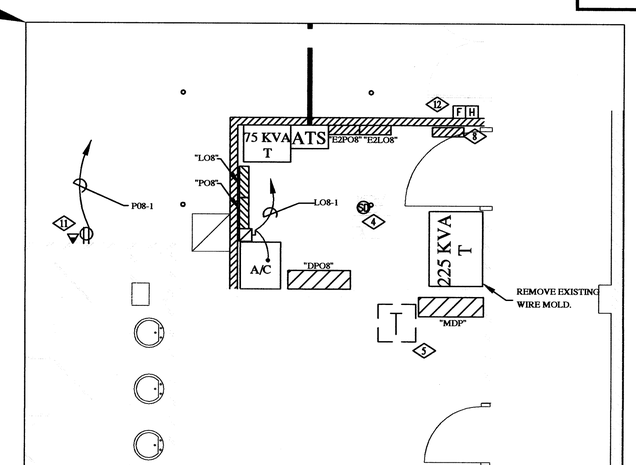
EE002



N SITE PLAN - POWER
SCALE: 1/16"=1'-0"



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



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

REFERENCE NOTES:

1. DISCONNECT THE POWER EXISTING 50 KVA DIESEL GENERATOR AFTER THE NEW GENERATOR IS INSTALLED AND FUNCTIONAL. RETURN THE GENERATOR TO THE STATES SURPLUS WAREHOUSE. COORDINATE WITH THE STATE FOR EXACT LOCATION.
2. TIE THE BATTERY CHARGER BLOCK HEATER LOUVER AND SPACE HEATER TO THE INDICATED CIRCUITS. COORDINATE WITH GENERATOR SUPPLIER FOR PROPER VOLTAGE.
3. RELOCATE THE EXISTING EXIT SIGN AND ASSOCIATED CIRCUIT ABOVE THE EXISTING DOUBLE DOOR. COORDINATE LOCATION WITH THE ENGINEER.
4. FURNISH AND INSTALL NEW SMOKE DETECTOR IN THE APPROXIMATE LOCATION SHOWN. TIE THE NEW DETECTOR TO THE EXISTS FIRE ALARM SYSTEM IN THE BUILDING. THE NEW DEVICES SHALL BE THE SAME AS THE EXISTING DEVICES. TEST AND CERTIFY THE NEW DEVICES AFTER INSTALLATION. PROVIDE CONDUIT, CONDUCTORS, SOFTWARE, HARDWARE, ETC.. FOR A COMPLETE INSTALLATION.
5. EXISTING TRANSFORMER TO BE REMOVED. REFER TO THE POWER SINGLE LINE DIAGRAM.
6. FURNISH AND INSTALL NEW 2'X4' RECESSED LIGHT FIXTURES IN THE APPROXIMATE LOCATIONS SHOWN. TIE THE LIGHT FIXTURES TO THE NEAREST 277VOLT EMERGENCY LIGHTING CIRCUIT. THE LIGHT FIXTURES SHALL BE EQUAL TO DAYBRITE 25PG-232-FS21-277-1/2EB10R.
7. PROVIDE A LAYOUT FOR THE ELECTRIC ROOM FOR APPROVAL. LAYOUT THE ROOM BASED ON ACTUAL SUBMITAL.
8. APPROXIMATE LOCATION OF GENERATOR REMOTE ANNOUNCIATOR PANEL. PROVIDE CONDUITS, CONDUTORS, ETC. AS PER MANUFACTURER'S RECOMENDATION FOR A COMPLETE INSTALLATION. RUN CONDUCTORS IN 3/4" MINIMUM CONDUIT.
9. SAW CUT EXISTING CONCRETE TO RUN NEW FEEDERS. ALSO SAW CUT EXISTING CONCRETE TO POUR NEW CONCRETE PAD FOR GENERATOR.
10. APPROXIMATE PATH OF NEW FEEDER CIRCUIT. FIELD VERIFY EXACT PATH PRIOR TO BID.
11. FURNISH AND INSTALL A 4"X4"X2-1/8" J-BOX IN THE APPROXIMATE LOCATION SHOWN FOR VOICE/DATA. RUN A 3/4" CONDUIT WITH A PULL-STRING FROM THE J-BOX TO THE NEAREST ACCESSIBLE CEILING SPACE ON THIS FLOOR. COORDINATE WITH THE OWNER/ARCHITECT FOR EXACT LOCATION PRIOR TO ROUGH-IN.
12. EXISTING FIRE ALARM DEVICES TO REMAIN. MAKE ANY MODIFICATION NECESSARY TO KEEP THE DEVICES OPERATIONAL. FIELD VERIFY.

SPEACIAL NOTES:

1. FIELD VERIFY ALL DIMENSIONS PRIOR TO BID.

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SITE PLAN - ELECTRICAL

EELD #222

DATE: AUG, 25, 2008

ES101