POST ACADEMY REUSE PROJECT
FOR STATE MAIL AND UCAT OFFICES
RAMPTON COMPLEX

DFCM PROJECT #07030550

TAYLORSVILLE, UTAH

DESIGN TEAM

ARCHITECTURAL
JRCA, Architects
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 Fax 533-2101
Contact: Danny Fuchs – dfuchs@jrcadesign.com

STRUCTURAL
WCA Structural Engineering
442 North Main Street Suite #200
Bountiful, Utah 84010
(801) 298-1118 Fax 298-1122
Contact: Cliff Cole – cliff.cole@wcaeng.com

LANDSCAPE
John Swain
891 N. Oakridge Dr.
Farmington, Utah 84025
(801) 402-7413 Fax 774-7608
Contact: John Swain – jjswain0127@msn.com

ELECTRICAL
Spectrum Professional Services
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
(801) 328-5151 Fax 328-5155
Contact: Truman Henard – txh@spectrum-engineers.com

CIVIL
Bush and Gudgell, Inc.
525 South 300 East
Salt Lake City, Utah 84111
(801) 364-1212 Fax 364-1225
Contact: George Buys – gbuys@bushandgudgell.com

MECHANICAL & PLUMBING
SMD Engineering
986 West Atherton Drive Suite #200
Taylorsville, Utah 84123
(801) 268-3828 Fax 268-3297
Contact: Scott Deakins – scott@smdengineering.com

State of Utah–Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building/Salt Lake City, Utah 84114/538-3018

DFCM PLAN CHECK

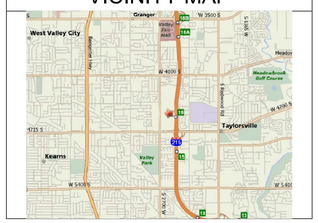
Division of Facilities Construction and Management

Phase _____ Program _____ Yes ___ No ___

	Approved as noted	Rejected Resubmit	No Comment	Initial	Date
Accessibility					
Architectural					
Civil					
Electrical					
Energy					
HVAC					
Landscape					
Plumbing					
Specification					
Structural					

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

VICINITY MAP



DEFERRED SUBMITTALS

-- --/--/--

APPROVALS:

Prime Agency _____ Date _____

DFCM _____ Date _____

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

ABBREVIATIONS

AC.	ACOUSTIC
ADD.	ADDENDUM
A/C	AIR CONDITIONING
AL.	ALUMINUM
ALT.	ALTERNATE
A.B.	ANCHOR BOLT
ARCH.	ARCHITECT
ASP.	ASPHALT
@	AT
&	AND
BSMT.	BASEMENT
B.M.	BENCHMARK
BLKG.	BLOCKING
BD.	BOARD
B.O.	BOTTOM OF
BLDG.	BUILDING
CAB'T.	CABINET
C.I.P.	CAST IN PLACE
C.B.	CATCH BASIN
CLG.	CEILING
℄	CENTER LINE
C.T.	CERAMIC TILE
CH	CHANNEL
CLR.	CLEAR
C.O.	CLEAN OUT
CL.	CLOSET
COL.	COLUMN
CONC.	CONCRETE
COND.	CONDITION
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONTROL JOINT
CONT.	CONTINUOUS
C.M.U.	CONCRETE MASONRY UNIT
D.B.	DECK BEARING
D.P.	DAMP PROOFING
DIAG.	DIAGONAL
DIA.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DWL.	DOWEL
DN.	DOWN
D.S.	DOWN SPOUT
DWG.	DRAWING
D.W.V.	DRAINAGE WASTE & VENT

EA.	EACH
EL.	ELECTRIC
E.W.C.	ELEC. WATER COOLER
ELEV.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXH.	EXHAUST
E.J.	EXPANSION JOINT
EXIST.	EXISTING
EXT.	EXTERIOR
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
FT.	FEET
FIN.	FINISH
FIXT.	FIXTURE
FL.	FLASHING
FLR.	FLOOR
F.D.	FLOOR DRAIN
FLUOR.	FLUORESCENT
FTG.	FOOTING
FND.	FOUNDATION
FR.	FRAME
GA.	GAUGE
GALV.	GALVANIZED
GL.	GLASS
GD.	GRADE
GRL.	GRILLE
GRD.	GROUND
GYP.	GYPSUM
G.S.N.	GENERAL STRUCTURAL NOTES
G.C.	GENERAL CONTRACTOR
HR.	HOUR
HDW.	HARDWARE
HDWD.	HARDWOOD
HTR.	HEATER
HT.	HEIGHT
H.P.	HIGH POINT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.B.	HOSE BIB
H.W.	HOT WATER
IN.	INCH
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INV.	INVERT

JAN.	JANITOR
JT.	JOINT
JST.	JOIST
LAM.	LAMINATED
LDG.	LANDING
LAV.	LAVATORY
LT.	LIGHT
L.W.C.	LIGHT WEIGHT CONCRETE
LVR.	LOUVER
M.B.	MACHINE BOLT
M.O.	MASONRY OPENING
MAT'L.	MATERIAL
MFR.	MANUFACTURER
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
MIN.	MINIMUM
MLDG.	MOLDING
MULL.	MULLION
N/A	NOT APPLICABLE
N.G.	NATURAL GRADE
NOM.	NOMINAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
O.D.	OUTSIDE DIAMETER
O.F.S.	OVERFLOW SCUPPER
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
PTD.	PAINTED
PR.	PAIR
PNL.	PANEL
d	PENNY
PL	PLATE
PLBG.	PLUMBING
PLY'WD.	PLYWOOD
PT.	PAINT
P.S.I.	POUNDS PER SQ. IN.
P.S.F.	POUNDS PER SQ. FT.
P.C.	PLUMBING CONTRACTOR
P.L.	PLASTIC LAMINATE
R.A.	RETURN AIR
RAD.	RADIUS
REG.	REGISTER

REQ'D.	REQUIRED
REV.	REVISION
REC.	RECOMMENDATION
R.D.	ROOF DRAIN
RFG.	ROOFING
RM.	ROOM
RGH.	ROUGH
RND.	ROUND
S.A.	SUPPLY AIR
SCR.	SCREW
SECT.	SECTION
SEL.	SELECT
SHT.	SHEET
SIM.	SIMILAR
SLDG.	SLIDING
SM.	SMOOTH
SPEC.	SPECIFICATION
SPL.	SPLASH
SQ.	SQUARE
STD.	STANDARD
S.S.	STAINLESS STEEL
STRUC.	STRUCTURE
SUSP.	SUSPENDED
SW.BD.	SWITCHBOARD
T&B	TOP & BOTTOM
TELCO	TELEPHONE COMPANY
T.G.	TEMPERED GLASS
T.O.C.	TOP OF CURB
T.O.	TOP OF
T.O.P.	TOP OF PARAPET
T.O.D.	TOP OF DECK
TYP.	TYPICAL
T&G	TONGUE & GROVE
U.N.O.	UNLESS NOTED OTHERWISE
V.	VENT
VERT.	VERTICAL
V.G.	VERTICAL GRAIN
VEST.	VESTIBULE
V.T.R.	VENT THROUGH ROOF
V.C.T.	VINYL COMPOSITION TILE
V.C.P.	VITREOUS CLAY PIPE
W.W.F.	WELDED WIRE FABRIC
W.C.	WATER CLOSET
W.H.	WATER HEATER
W.F.	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD.	WOOD
WDW.	WINDOW
W.R.	WATER RESISTANT
W.P.	WATER PROOF

MATERIALS / SYMBOLS

WOOD MOLDING
STONE IN SECTION
CONCRETE
EARTH
GRAVEL
MASONRY
STEEL FRAMING
RIGID INSULATION
BATT INSULATION
GYPSUM WALL BOARD
PLYWOOD
BLOCKING
CONTINUOUS WOOD
OR — LEVEL ELEVATION, FLOOR ELEVATION, POINT ELEVATION

℄ — CENTERLINE
XX / AEXXX — BUILDING SECTION FLAG
XX / AEXXX — WALL SECTION FLAG
A1 / AE411 — INTERIOR ELEVATION
XX / AEXXX — DETAIL
A — GRID TAG
W-1 — WINDOW TAG
101A — DOOR TAG
ROOM / XXX — ROOM TAG
1 — KEYNOTE TAG
1 — REVISION TAG
G3 — WINDOW GLAZING SCHEDULE
1 — WALL TYPE SYMBOL

DRAWING INDEX

GENERAL INFORMATION:
G101 GENERAL INFORMATION
G102 CODE COMPLIANCE PLAN
AS101 ARCHITECTURAL SITE PLAN

LANDSCAPE:
L101 LANDSCAPE DEMOLITION PLAN
L102 SITE PLANTING PLAN

CIVIL
C1 UTILITY & GRADING PLAN

ARCHITECTURAL:
DP101 MAIN LEVEL DEMOLITION PLAN
DP102 UPPER LEVEL DEMOLITION PLAN
DP103 MAIN LEVEL REFLECTED CEILING DEMOLITION PLAN
DP104 UPPER LEVEL REFLECTED CEILING DEMOLITION PLAN
DP105 ROOF DEMOLITION PLAN
AE101 MAIN LEVEL FLOOR PLAN
AE102 UPPER LEVEL FLOOR PLAN
AE151 ROOF PLAN
AE161 MAIN LEVEL REFLECTED CEILING PLAN
AE162 UPPER LEVEL REFLECTED CEILING PLAN
AE201 EXTERIOR ELEVATIONS
AE351 WALL SECTIONS
AE401 ENLARGED PLANS – INTERIOR ELEVATIONS
AE451 VERTICAL CIRCULATION
AE511 WALL TYPES
AE521 INTERIOR DETAILS
AE541 BUILDING DETAILS
AE571 CASEWORK DETAILS
AE601 SCHEDULES – DOOR & FRAME TYPES

STRUCTURAL:
SE100 STRUCTURAL GENERAL NOTES
SE101 FOOTING AND FOUNDATION PLAN
SE201 FLOOR FRAMING PLAN
SE301 ROOF FRAMING PLAN
SE501 STRUCTURAL DETAILS
SE502 STRUCTURAL DETAILS
SE503 STRUCTURAL DETAILS
SE504 STRUCTURAL DETAILS

MECHANICAL:
MH001 MECHANICAL LEGEND AND NOTES
FP101 FIRE PROTECTION MAIN LEVEL FLOOR PLAN
FP102 FIRE PROTECTION UPPER LEVEL FLOOR PLAN
MD101 MECHANICAL MAIN LEVEL DEMOLITION PLAN
MD102 MECHANICAL UPPER LEVEL DEMOLITION PLAN
MH101 MECHANICAL MAIN LEVEL FLOOR PLAN
MH102 MECHANICAL UPPER LEVEL FLOOR PLAN
MH103 MECHANICAL ROOF PLAN
MH401 ENLARGED MECHANICAL UPPER LEVEL FLOOR PLAN
MH501 MECHANICAL DETAILS
MH502 MECHANICAL DETAILS
MH601 MECHANICAL SCHEDULES
MH602 MECHANICAL SCHEDULES
MH701 MECHANICAL PIPING SCHEMATICS
MP101 MECHANICAL PIPING MAIN LEVEL PLAN
MP102 MECHANICAL PIPING UPPER LEVEL PLAN

PLUMBING:
PD101 PLUMBING MAIN LEVEL DEMOLITION PLAN
PD102 PLUMBING UPPER LEVEL DEMOLITION PLAN
PP101 PLUMBING MAIN LEVEL FLOOR PLAN
PP102 PLUMBING UPPER LEVEL FLOOR PLAN
PP401 ENLARGED PLUMBING LEVEL FLOOR PLANS
PP501 PLUMBING DETAILS
PP601 PLUMBING SCHEDULES

ELECTRICAL:
EE001 SYMBOL LEGEND, & ABBREVIATIONS
EE501 DETAILS
ES101 ELECTRICAL SITE PLAN
ED101 DEMOLITION PLAN FOR EXIST. FIRST FLOOR LIGHTING PLAN
ED102 DEMOLITION PLAN FOR EXIST. SECOND FLOOR LIGHTING PLAN
ED103 DEMOLITION PLAN FOR EXIST. FIRST FLOOR POWER PLAN
ED104 DEMOLITION PLAN FOR EXIST. SECOND FLOOR POWER PLAN
ED105 REFERENCE FIRE ALARM AUDIO VISUAL ELECTRICAL LAYOUT
ED106 REFERENCE LIGHTING FIXTURE & PANEL SCHEDULE
ED107 REFERENCE ONE-LINE RISER, MECHANICAL SCHEDULE, PAD DETAIL, SYMBOL LEGEND
EP101 MAIN LEVEL POWER PLAN
EP102 UPPER LEVEL POWER PLAN
EP103 ROOF POWER PLAN
EP401 ENLARGED POWER PLANS
EP601 ONE-LINE DIAGRAM
EP602 EQUIPMENT SCHEDULES
EP603 PANEL SCHEDULES
EL101 MAIN LEVEL LIGHTING PLAN
EL102 UPPER LEVEL LIGHTING PLAN
EL601 LIGHTING FIXTURE SCHEDULE
ET101 MAIN LEVEL TECHNOLOGY PLAN
ET102 UPPER LEVEL TECHNOLOGY PLAN
ET601 TECHNOLOGY DETAILS & DIAGRAMS
FA101 MAIN LEVEL FIRE ALARM PLAN
FA102 UPPER LEVEL FIRE ALARM PLAN
FA601 FIRE ALARM RISER

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

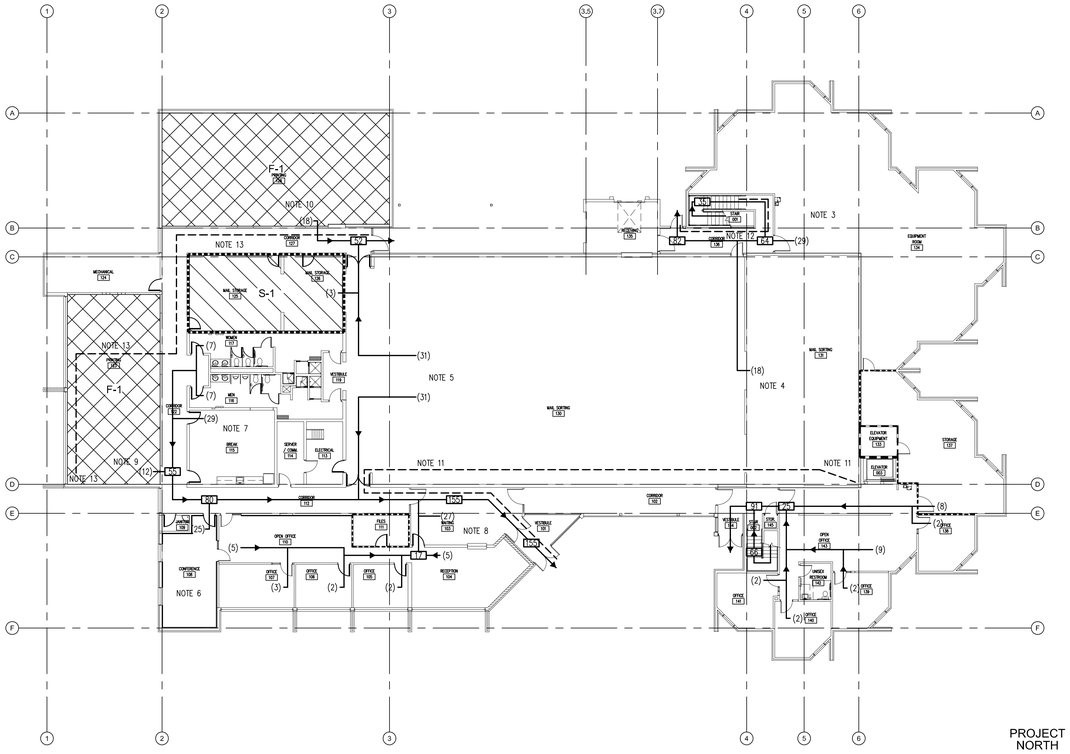
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

GENERAL INFORMATION

GI 101

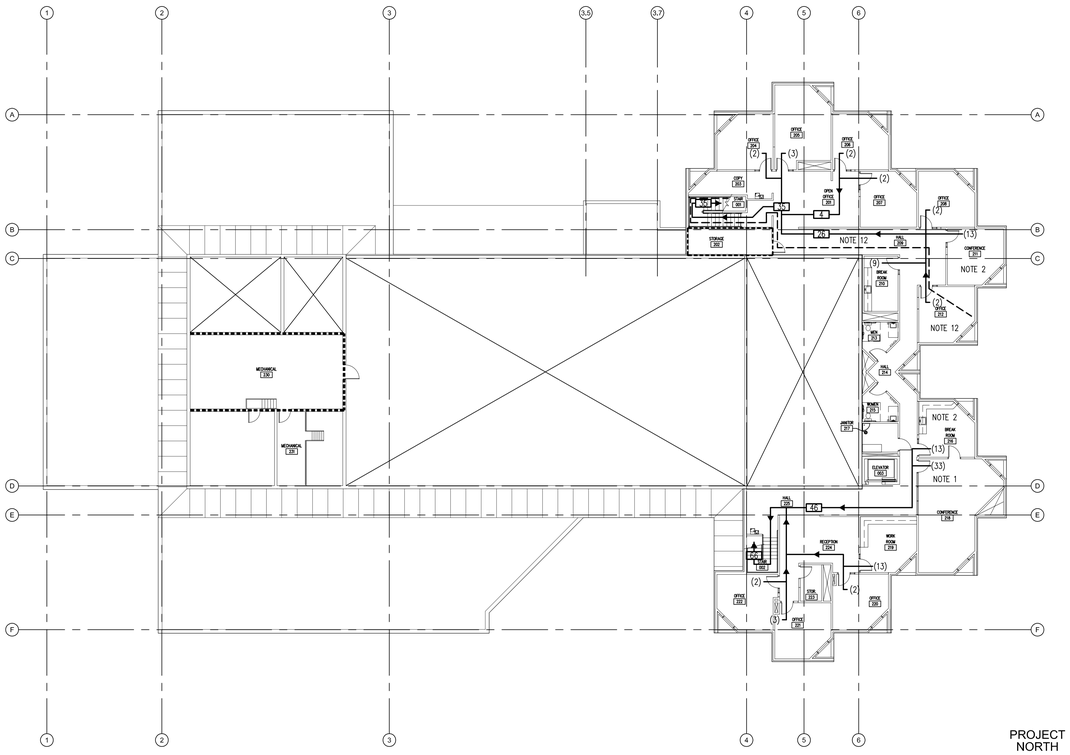
PERMIT DOCUMENTS JANUARY 13, 2009



PROJECT NORTH

MAIN LEVEL CODE COMPLIANCE PLAN

SCALE 1/16" = 1'-0"



PROJECT NORTH

UPPER LEVEL CODE COMPLIANCE PLAN

SCALE 1/16" = 1'-0"

CODE COMPLIANCE PLAN NOTE:

1. 485 SF/15 SF NET = 33 OCCUPANTS
2. 196 SF/15 SF NET = 13 OCCUPANTS
3. 2805 SF/100 SF GROSS = 29 OCCUPANTS
4. 1746 SF/100 SF GROSS = 18 OCCUPANTS
5. 6128 SF/100 SF GROSS = 62 OCCUPANTS
6. 370 SF/15 SF NET = 25 OCCUPANTS
7. 428 SF/15 SF NET = 29 OCCUPANTS
8. 189 SF/7 SF NET = 27 OCCUPANTS
9. 1196 SF/100 SF GROSS = 12 OCCUPANTS
10. 174 SF/100 SF GROSS = 18 OCCUPANTS
11. ACTUAL TRAVEL DISTANCE: 165 FT.
    PERMITTED TRAVEL DISTANCE: 300 FT.
12. ACTUAL TRAVEL DISTANCE: 155 FT.
    PERMITTED TRAVEL DISTANCE: 300 FT.
13. ACTUAL TRAVEL DISTANCE: 140 FT.
    PERMITTED TRAVEL DISTANCE: 250 FT.

CODE ANALYSIS

APPLICABLE CODES

	Year		Year
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for Building Conservation	N/A
International Fuel Gas Code	2006	ADA Accessibility Guidelines	ANSI A117.1 2003
International Plumbing Code	2006		
International Fire Code	2006		
International Energy Conservation Code	2006		

A. Occupancy and Group: F-1, B, S-1

Change in Use: Yes __X__ No ____ Mixed Occupancy: Yes __X__ No _____
Special Use and Occupancy (e.g. High Rise, Covered Mall): ____NONE___

B. Seismic Design Category: _D_ Design Wind Speed: 90 mph, Exposure C

C. Type of Construction (circle one):

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

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: __Y__ Nonseparated Uses: __Y__

F: Sprinklers:

Required: __Y__ Provided: __Y__

Type of Sprinkler System (IBC 903.3.1) NFPA 13

G: Number of Stories: __2__ Building Height: __30'__

H: Actual Area per Floor (square feet): _Main: 25,781; 2nd: 7,641_

I: Tabular Area: _(table 503)__8,500_____

J: Area Modifications:

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

$A_a = \left\{ 8{,}500 + \left[8{,}500 \times .75 \right] + \left[8{,}500 \times 2 \right] \right\} = 31{,}875$ $I_f = .75$, $I_s = 3$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$\frac{33{,}422}{63{,}750} \leq 1$

c) Total Allowable Area for:
1) One Story: __31,875__
2) Two Story: $A_a(2)$__63,750__
3) Three Story: $A_a(3)$__N/A__

d) Unlimited Area Building: Yes _____ No __X__ Code Section: _____

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

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0		Floors - Ceiling Floors	0	
Interior Bearing Walls	0		Roofs - Ceiling Roofs	0	
Exterior Non-Bearing Walls	0		Exterior Doors and Windows	0	
Structural Frame	0		Shaft Enclosures	0	
Partitions - Permanent	0		Fire Walls	0	
Fire Barriers	1		Fire Partitions	0	
			Smoke Partitions		

L. Design Occupant Load: _334_
Exit Width Required: _51_ Exit Width Provided: _160_

M. Minimum Number of Required Plumbing Facilities:
a) Water Closets - Required (m) _3_ (f) _4_ Provided (m) _3_ (f) _4_
b) Urinals - Required (m) _1_ (f) _0_ Provided (m) _2_ (f) _0_
c) Lavatories - Required (m) _3_ (f) _3_ Provided (m) _3_ (f) _3_
d) Bath Tubs or Showers: _4_
e) Drinking Fountains: _4_ Service Sinks: _2_

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.

DEFERRED SUBMITTALS

1. BUILDING SIGNAGE AS REQUIRED BY IBC 1110 AND ANSI A117-1
   APPROXIMATE DATE: MAY 15, 2009
2. FIRE SPRINKLER SYSTEM
   APPROXIMATE DATE: MAY 15, 2009

NOTE:
THESE DOCUMENTS COMPLY WITH DFCM STANDARDS

LEGEND:

(2) OCCUPANT LOAD
(18) COMBINED OCCUPANT LOAD ALONG PATH OF EGRESS
1-HOUR FIRE BARRIER
SMOKE BARRIER SEPERATION

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

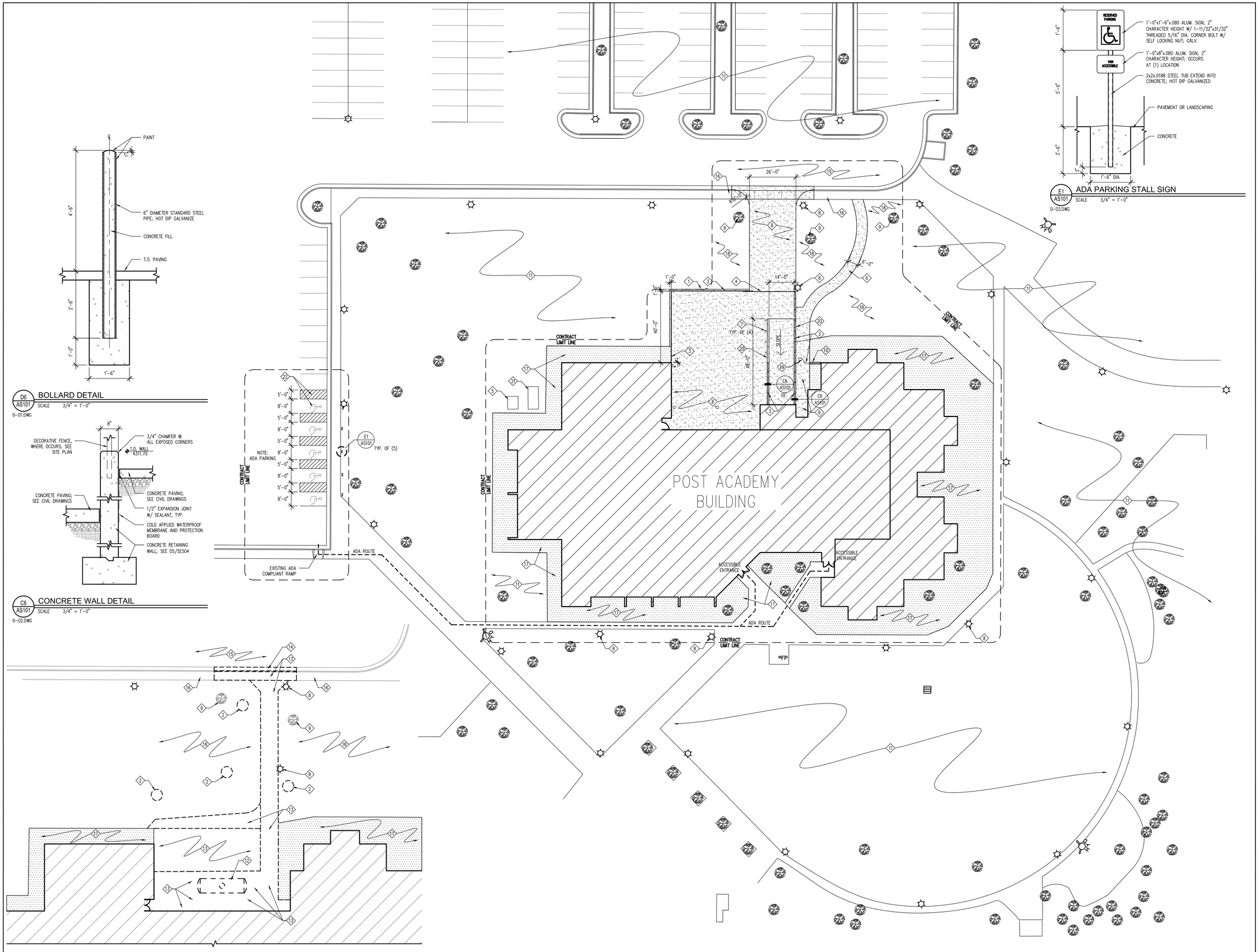
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

CODE COMPLIANCE PLAN

GI 102

D6 / AS101 BOLLARD DETAIL
SCALE 3/4" = 1'-0"
0-01.DWG

C6 / AS101 CONCRETE WALL DETAIL
SCALE 3/4" = 1'-0"
0-02.DWG



PROJECT NORTH

PARTIAL SITE DEMOLITION PLAN
SCALE 1" = 20'-0"
site demo.dwg

ARCHITECTURAL SITE PLAN
SCALE 1" = 20'-0"

E1 / AS101 ADA PARKING STALL SIGN
SCALE 3/4" = 1'-0"
0-03.DWG

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING LANDSCAPING & SITE IMPROVEMENTS WHICH ARE TO REMAIN FREE FROM DAMAGE DURING CONSTRUCTION BOTH INSIDE AND OUTSIDE THE CONTRACT LIMIT LINE. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED ITEM OR SITE IMPROVEMENTS AS SPECIFIED. OR IF NOT SPECIFIED, TO MATCH EXISTING ADJACENT CONSTRUCTION
2. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL UTILITIES AND SITE IMPROVEMENTS WHICH ARE AFFECTED BY, OR WHICH TIE-IN WITH NEW CONSTRUCTION
3. EXISTING ROAD, PARKING, SERVICE DRIVES, & SIDEWALKS SHALL REMAIN ACCESSIBLE & BE KEPT CLEAR OF CONSTRUCTION EQUIPMENT, MATERIALS, MUD, DIRT, OTHER DEBRIS
4. SEE CIVIL AND LANDSCAPE DRAWINGS FOR EXTENT OF SITE WORK
5. SEE LANDSCAPE DRAWINGS FOR LANDSCAPE REQUIREMENTS

KEY NOTES:

1. EDGE OF CONCRETE PAVING
2. EXISTING TREE TO BE REMOVED
3. 6'-0" HIGH DECORATIVE FENCE
4. HORIZONTAL SLIDE GATE
5. TRANSFORMER, SEE ELECTRICAL DRAWINGS
6. CONCRETE PAVING, SEE CIVIL DRAWINGS
7. BOLLARD, SEE D6/AS101
8. EXISTING POLE LIGHT TO REMAIN
9. EXISTING TREE TO REMAIN; PROTECT DURING CONSTRUCTION
10. CONCRETE MOW STRIP, 8" x 1'-0"
11. EXISTING SITE ELEMENTS TO REMAIN
12. EXISTING BURIED WATER TANK TO BE REMOVED; SEE CIVIL AND MECHANICAL / PLUMBING DRAWINGS FOR COMPLETE REQUIREMENTS
13. CONCRETE PAVING TO BE REMOVED
14. EXISTING CONCRETE CURB & GUTTER TO BE REMOVED
15. EXISTING ASPHALT PAVING TO REMAIN
16. EXISTING CURB & GUTTER AND SIDEWALK TO REMAIN
17. LANDSCAPING; SEE LANDSCAPE DRAWINGS
18. EXISTING LANDSCAPE TO REMAIN, REMOVE ONLY AS REQUIRED TO FACILITATE SITE WORK, REPLACE / REPAIR LANDSCAPING AND SPRINKLER SYSTEM TO MATCH CURRENT STATE IN THIS AREA
19. 3'-6" WIDE SWING GATE WITH PAD LOCK HASP
20. RETAINING WALL
21. CONCRETE GENERATOR PAD, SEE ELECTRICAL DRAWINGS
22. PAVEMENT MARKINGS

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

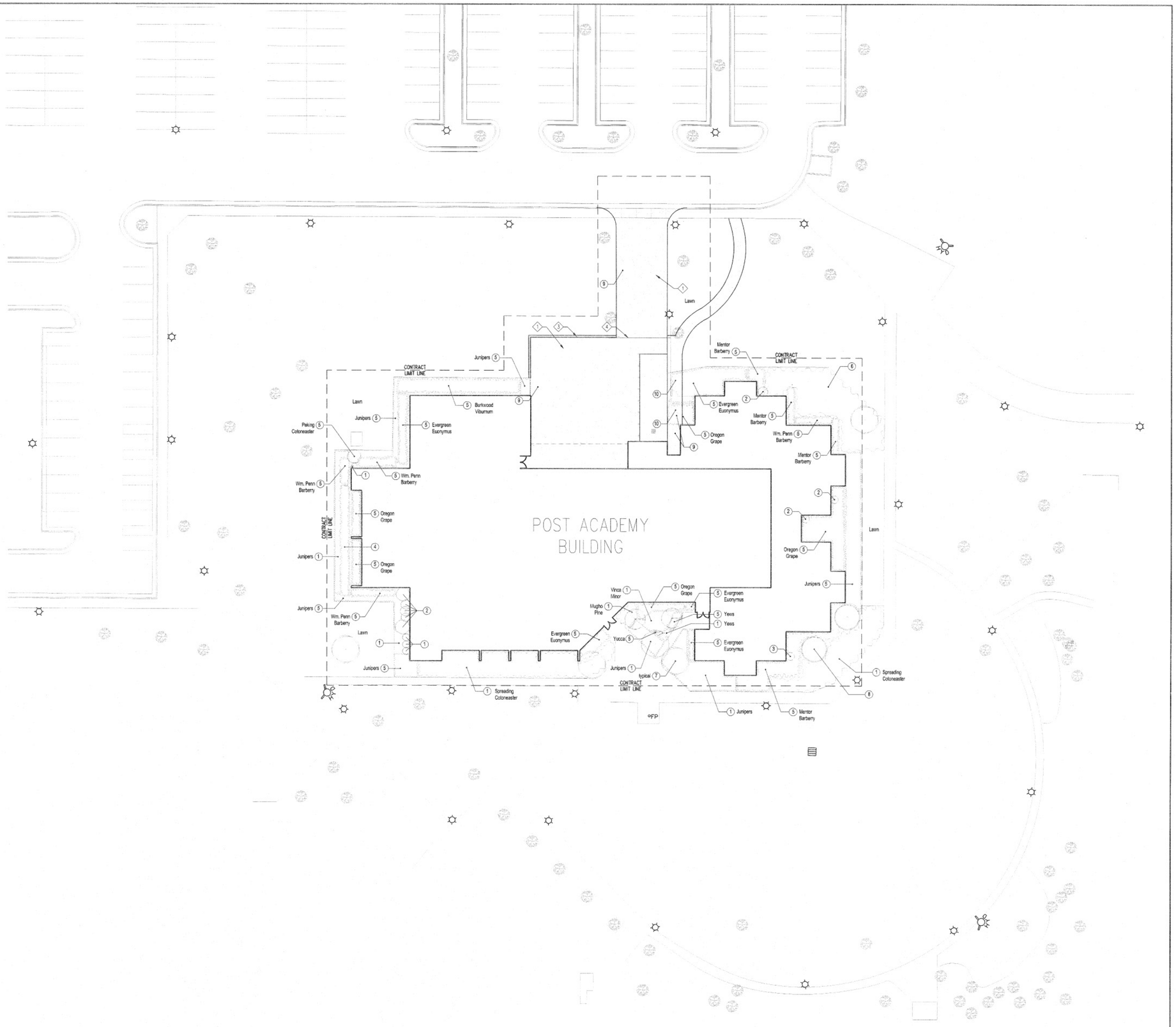
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

ARCHITECTURAL SITE PLAN / PARTIAL SITE DEMOLITION PLAN

AS 101



LANDSCAPE DEMOLITION PLAN
SCALE 1" = 20'-0"

PROJECT NORTH

John Swain, ASLA /Landscape Architect 801.451.0127 891 North Oakridge Drive Farmington, Utah 84025 jswain0727@msn.com

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING LANDSCAPING & SITE IMPROVEMENTS WHICH ARE TO REMAIN FREE FROM DAMAGE DURING CONSTRUCTION BOTH INSIDE AND OUTSIDE THE CONTRACT LIMIT LINE. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED ITEM OR SITE IMPROVEMENTS AS SPECIFIED, OR IF NOT SPECIFIED, TO MATCH EXISTING ADJACENT CONSTRUCTION
2. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL UTILITIES AND SITE IMPROVEMENTS WHICH ARE AFFECTED BY, OR WHICH TIE-IN WITH NEW CONSTRUCTION
3. EXISTING ROAD, PARKING, SERVICE DRIVES, & SIDEWALKS SHALL REMAIN ACCESSIBLE & BE KEPT CLEAR OF CONSTRUCTION EQUIPMENT, MATERIALS, MUD, DIRT, OTHER DEBRIS
4. SEE CIVIL AND LANDSCAPE DRAWINGS FOR EXTENT OF SITE WORK

DEMOLITION NOTES:

1. REMOVE SHRUBS/WEEDS/GRASSES ETC. INCLUDING ROOTS.
2. REMOVE WILD ROSES INCLUDING ROOTS.
3. REMOVE RUSSIAN OLIVE TREE.
4. TOP YEWS INTO CONTIUOUS HEDGE APPX. 3' HIGH.
5. RETAIN AND PROTECT NOTED PLANT MATERIAL.
6. RETAIN COTONEASTER. TRIM BACK PLANTS AT PERIMETER OF PLANTING BED TO REDUCE HEIGHT TO MATCH INTERIOR PLANTING BED AND REMOVE LARGE EXPOSED INTERIOR BRANCHES.
7. RETAIN & PROTECT EXISTING TREES. TRIM LOW BRANCHES ON HONEYLOCUST AT SOUTH ENTRY TO BUILDING
8. REMOVE EXISTING BLUE SPRUCE.
9. CAP AND REMOVE SPRINKLER HEADS IN DELETED PLANTING AREA AS NECESSARY TO FACILITATE NEW CONSTRUCTION. MODIFY EXISTING SHRUB VALVES TO ACCOMODATE REMAINING PLANTING.
10. REMOVE EUONYMUS AS REQUIRED TO FACILITATE CONCRETE SLAB.

KEY NOTES:

1. 8" THICK CONCRETE PAVING
2. EXISTING TREE TO BE REMOVED
3. 6'-0" HIGH DECORATIVE FENCE
4. HORIZONTAL SLIDE GATE

PERMIT DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

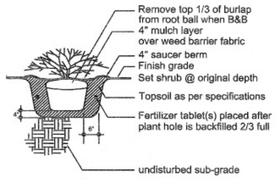
STATE OF UTAH
John T. Swain
88-102348-5301
LICENSED LANDSCAPE ARCHITECT

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008

LANDSCAPE ARCHITECT
JOHN T. SWAIN
88-102348-5301
State of Utah

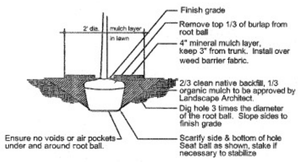
LANDSCAPE DEMOLITION PLAN

L 101



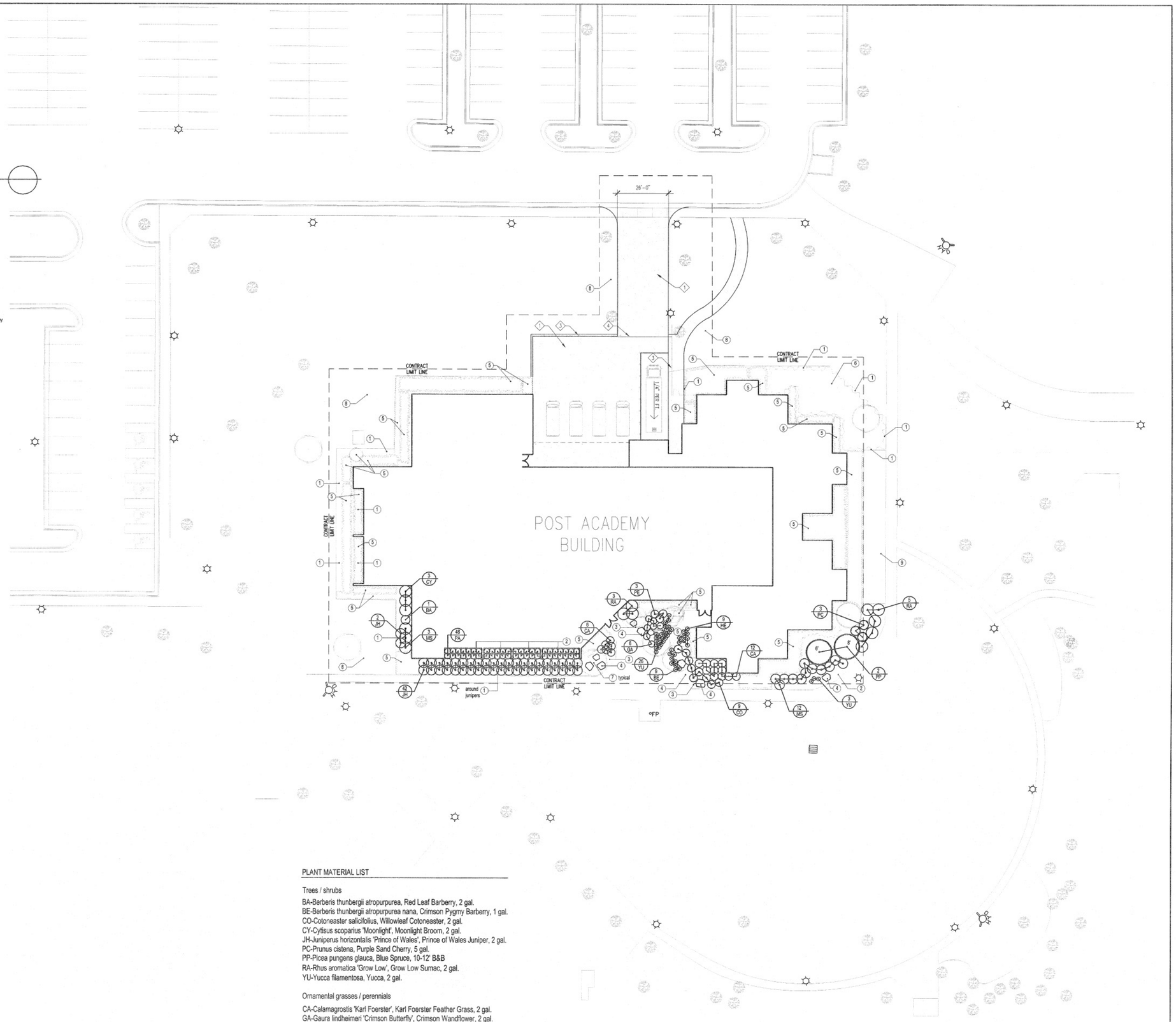
Shrub Planting Detail

No scale



Tree Planting Detail

No scale



PLANT MATERIAL LIST

Trees / shrubs

BA-Berberis thunbergii atropurpurea, Red Leaf Barberry, 2 gal.
BE-Berberis thunbergii atropurpurea nana, Crimson Pygmy Barberry, 1 gal.
CO-Cotoneaster salicifolius, Willowleaf Cotoneaster, 2 gal.
CY-Cytisus scoparius 'Moonlight', Moonlight Broom, 2 gal.
JH-Juniperus horizontalis 'Prince of Wales', Prince of Wales Juniper, 2 gal.
PC-Prunus cistena, Purple Sand Cherry, 5 gal.
PP-Picea pungens glauca, Blue Spruce, 10-12' B&B
RA-Rhus aromatica 'Grow Low', Grow Low Sumac, 2 gal.
YU-Yucca filamentosa, Yucca, 2 gal.

Ornamental grasses / perennials

CA-Calamagrostis 'Karl Foerster', Karl Foerster Feather Grass, 2 gal.
GA-Gaura lindheimeri 'Crimson Butterfly', Crimson Wandflower, 2 gal.
HE-Hemerocallis 'Stella d' Oro', Daylily, 1 gal.
MS-Miscanthus sinensis 'Gracillimus', Gracillimus Maiden Grass, 2 gal.
PA-Pennisetum Hameln, Hameln Fountain Grass, 2 gal.
PE-Perovskia atriplicifolia, Russian Sage, 1 gal.

PLANTING PLAN

SCALE 1" = 20'-0"

John Swain, ASLA /Landscape Architect 801 / 451-0127 891 North Oakridge Drive Farmington, Utah 84025 jswain0127@msn.com

PROJECT NORTH

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING LANDSCAPING & SITE IMPROVEMENTS WHICH ARE TO REMAIN FREE FROM DAMAGE DURING CONSTRUCTION BOTH INSIDE AND OUTSIDE THE CONTRACT LIMIT LINE. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED ITEM OR SITE IMPROVEMENTS AS SPECIFIED, OR IF NOT SPECIFIED, TO MATCH EXISTING ADJACENT CONSTRUCTION
2. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL UTILITIES AND SITE IMPROVEMENTS WHICH ARE AFFECTED BY, OR WHICH TIE-IN WITH NEW CONSTRUCTION
3. EXISTING ROAD, PARKING, SERVICE DRIVES, & SIDEWALKS SHALL REMAIN ACCESSIBLE & BE KEPT CLEAR OF CONSTRUCTION EQUIPMENT, MATERIALS, MUD, DIRT, OTHER DEBRIS
4. SEE CIVIL DRAWINGS FOR EXTENT OF SITE WORK

PLANTING NOTES:

1. PLACE 4" DEPTH OF SHREDDED BARK MULCH OVER WEED BARRIER.
2. PLACE 4" DEPTH OF 1" MINERAL MULCH OVER WEED BARRIER.
3. PLACE 6" DEPTH OF 3-4" COBBLE MULCH OVER WEED BARRIER.
4. SANDSTONE "SLAB" BOULDERS (APPX. 3' X 4' X 16" HIGH) 9 REQ.
5. RETAIN AND PROTECT NOTED PLANT MATERIAL.
6. RETAIN COTONEASTER. TRIM BACK PLANTS AT OUTSIDE PERIMETER OF PLANTING BED TO REDUCE HEIGHT TO MATCH INTERIOR PLANTING BED AND REMOVE LARGE EXPOSED INTERIOR BRANCHES.
7. RETAIN & PROTECT EXISTING TREES. TRIM LOW BRANCHES ON HONEYLOCUST AT SOUTH ENTRY TO BUILDING
8. EXISTING TURF.
9. NEW SOD.

IRRIGATION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR RETAINING EXISTING IRRIGATION SYSTEM IN AREAS NOT RECEIVING NEW PLANTING DURING DEMOLITION AND PLANTING PROCESS. SYSTEM SHALL BE KEPT IN WORKING ORDER WHERE POSSIBLE AND/OR PROVIDE SUPPLEMENTAL WATERING AS REQUIRED TO MAINTAIN PLANTS IN A HEALTHY AND VIGORIOUS CONDITION.
2. CONTRACTOR TO MODIFY EXISTING IRRIGATION SYSTEM IN AREAS TO RECEIVE NEW PLANT MATERIAL OR AREAS DISTURBED BY REMOVAL OF EXISTING PLANTS. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL IRRIGATION VALVES, HEADS, LINES WHICH ARE AFFECTED BY, OR WHICH TIE-IN WITH NEW CONSTRUCTION.

   a) WHERE HEADS ARE NO LONGER NEEDED, REMOVE HEADS AND CAP.

   b) CONTRACTOR SHALL PROVIDE SPRINKLER LAYOUT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. LAYOUT SHALL UTILIZE IRRIGATION COMPONENTS WHICH EMPLOY WATER CONSERVING METHODS WHILE PROVIDING ADEQUATE WATER DISTRIBUTION TO THE NEW PLANT MATERIAL BASED ON INDUSTRY STANDARDS.

   c) SPRAY HEADS SHALL BE USED ONLY WHERE REQUIRED TO ACHIEVE ADEQUATE DISTRIBUTION OF WATER FOR PLANTS.

   d) CONTRACTOR TO REUSE EXISTING ZONES, VALVES AND WIRING. CONTRACTOR TO SUPPLY AND INSTALL NEW IRRIGATION CONTROLLER (RAINBIRD ESP-MC 12 STATION CONTROLLER). COORDINATE LOCATION AND INSTALLATION WITH STATE GROUNDS MAINTENANCE PERSONNEL. UTILIZE EXISTING ZONES AND EXTEND AND/OR SHORTEN WHERE POSSIBLE TO ACHIEVE DESIRED DISTRIBUTION OF WATER BASED ON NEW PLANTING SCHEME.
3. CONTRACTOR TO MODIFY LAYOUT OF LAWN HEADS ON NORTH SIDE OF BUILDING TO ACCOMMODATE NEW CONCRETE DRIVE AND PARKING.
4. STATE CONTACT FOR GROUNDS: DAN BERRY 965-4780.

KEY NOTES:

1. 8" THICK CONCRETE PAVING
2. EXISTING TREE TO BE REMOVED
3. 6'-0" HIGH DECORATIVE FENCE
4. HORIZONTAL SLIDE GATE

PERMIT DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

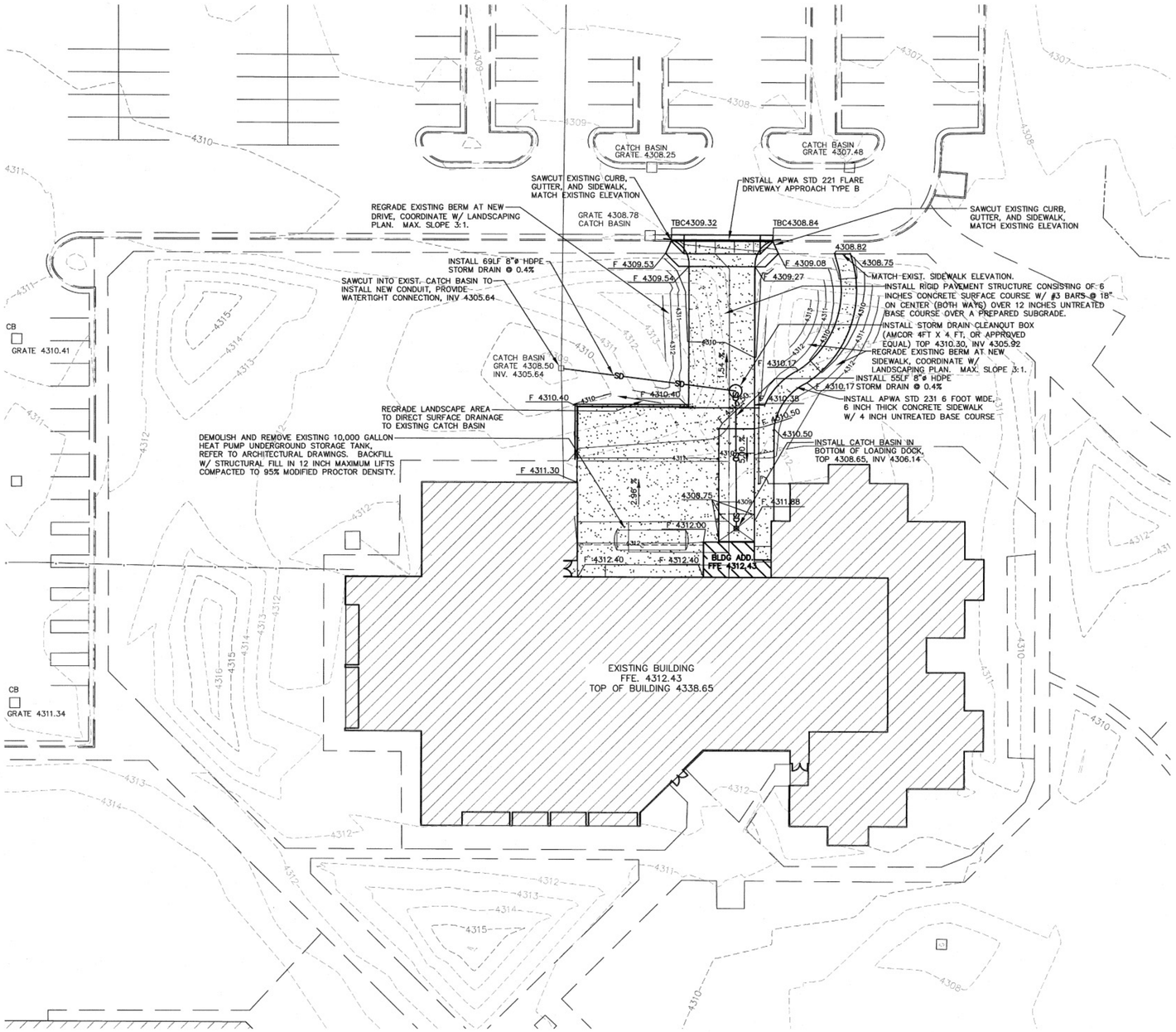
STATE OF UTAH LICENSED LANDSCAPE ARCHITECT JOHN T. SWAIN 88-102348-5301

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008

LANDSCAPE ARCHITECT JOHN T. SWAIN 88-102348-5301 State of Utah

SITE PLANTING PLAN

L 102



NORTH

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND

- AC = AIR CONDITIONING UNIT
- AS = AUTOMATIC SPRINKLERS
- BP = BUMPER POST
- = CITY MONUMENT
- CB = CATCH BASIN
- EB = ELECTRIC BOX
- EM = ELECTRIC METER
- EMH = ELECTRIC MANHOLE
- FH = FIRE HYDRANT
- FP = FLAG POLE
- GM = GAS METER
- LP = LIGHT POLE
- SDMH = STORM DRAIN MANHOLE
- SSMH = SEWER MANHOLE
- TMH = TELEPHONE MANHOLE
- TR = TRANSFORMER PAD
- WMH = WATER MANHOLE
- WM = WATER METER
- WV = WATER VALVE

GENERAL NOTES:

1. CONTRACTOR SHALL CALL FOR BLUE STAKES, TELEPHONE 1-800-662-4111, A MINIMUM OF 48 HOURS BEFORE ANY EXCAVATION IS TO COMMENCE.

2. CONTRACTOR SHALL HAVE OBTAINED AND REVIEWED THE GEOTECHNICAL ENGINEERING STUDY AND SHALL BE FAMILIAR WITH THE RECOMMENDATIONS MADE IN THAT REPORT.

3. STRIP AND REMOVE EXISTING VEGETATION, ORGANIC TOPSOILS, DEBRIS, FILL, EXISTING FOUNDATIONS, UTILITY TRENCHES AND ANY OTHER DELETERIOUS MATERIALS FROM THE BUILDING AND PAVEMENT AREAS. ORGANIC TOPSOILS MAY EXTEND FROM SIX TO 10 INCHES BELOW THE SURFACE. ALL EXPOSED SURFACES SHALL BE FREE OF MOUNDS AND DEPRESSIONS WHICH COULD PREVENT UNIFORM COMPACTION.

4. THE SUBGRADE SHOULD BE SCARIFIED, MOISTURE CONDITIONED, AND RECOMPACTED TO A FIRM UNYIELDING CONDITION TO A MINIMUM DEPTH OF 8 INCHES PRIOR TO PLACEMENT OF PAVEMENT MATERIALS. IF LOOSE ZONES ARE ENCOUNTERED THAT DO NOT IMPROVE WITH REPEATED COMPACTION, THEY SHALL BE REMOVED AND REPLACED WITH PROPERLY-COMPACTED, STRUCTURAL FILL.

5. PLACE AND COMPACT FILL MATERIALS IN HORIZONTAL LIFTS NOT EXCEEDING 12 INCHES, USING EQUIPMENT AND PROCEDURES THAT WILL PRODUCE RECOMMENDED WATER CONTENTS AND DENSITIES THROUGHOUT THE LIFT. NO FILL SHALL BE PLACED OVER FROZEN GROUND. MATERIALS SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION (ASTM D1557).

6. FILL SOILS SHALL NOT CONTAIN SNOW OR ICE, OR BE PLACED IN A FROZEN CONDITION. FILL SOILS SHALL NOT BE PLACED ON SNOW, ICE, OR FROZEN SOILS.

7. NO GRADE CHANGES WILL BE PERMITTED FROM THAT SHOWN AND APPROVED ON THIS PLAN WITHOUT RESUBMITTING THE PROPOSED CHANGES TO THE OWNER, AND HIS REPRESENTATIVE.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY SETTLEMENT OF OR DAMAGE TO EXISTING IMPROVMENTS AT OR NEAR THE PROJECT SITE.

9. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES LOCATED AT OR NEAR THE PROJECT SITE AND SHALL PROTECT THOSE UTILITIES FROM ANY POTENTIAL DAMAGE.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL IN ACCORDANCE WITH THE TAYLORSVILLE CITY STANDARDS. CONTRACTOR SHALL WET DOWN ALL DRY MATERIALS TO PREVENT BLOWING DUST AND REMOVE ALL RUBBISH TO PREVENT WIND SCATTERING.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ADJACENT SURFACE IMPROVEMENTS DURING CONSTRUCTION.

12. ALL EXISTING ASPHALT TO BE CUT SHALL BE SAWCUT IN NEAT STRAIGHT LINES BY THE CONTRACTOR PRIOR TO EXCAVATION.

REGISTERED PROFESSIONAL ENGINEER
GEORGE WILTON WEBB
No. 152886
STATE OF UTAH

No.	Date	By	Revisions

BUSH & GUDGELL, INC
Engineers - Surveyors - Planners
40 West 300 South, Suite 200
Salt Lake City, Utah 84111
Phone (801) 364-1212
Fax (801) 364-1275
www.bushandgudgell.com

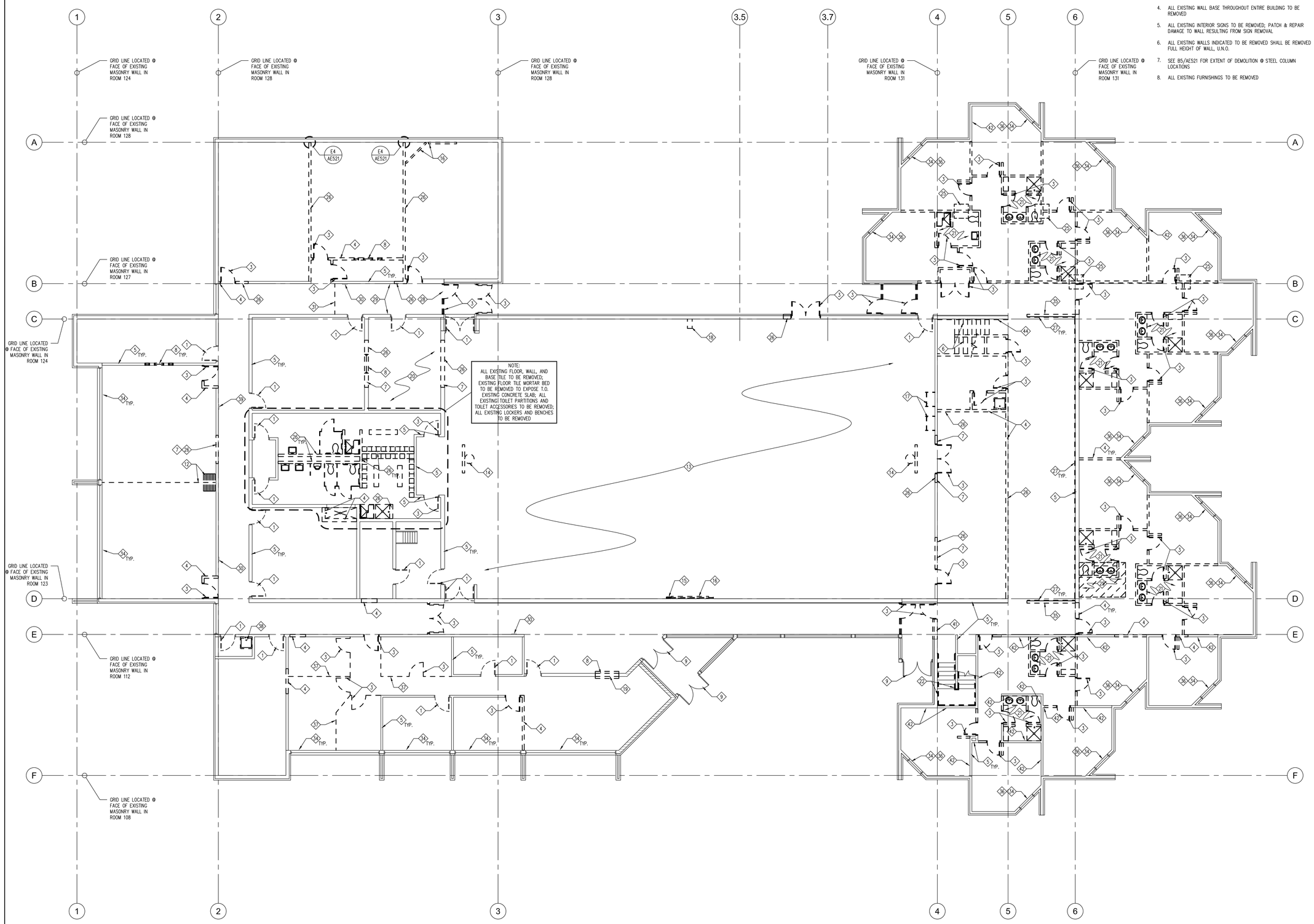
Drawn: GWB Date: AUG 06
Field Chief: GWB
Checked:
Approved:
Scale: 1 INCH = 20 FEET
Job No: 47952

POST ACADEMY BUILDING RENOVATION
UTILITY & GRADING PLAN
LOCATION: SEC 4, T2S, R1W, S.L.B.&M.
PREPARED FOR: JRCA ARCHITECTS

SHEET
C1
FILE: 47952

GENERAL NOTES:

1. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF MECHANICAL AND PLUMBING EQUIPMENT, FIXTURES AND SYSTEMS
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL EQUIPMENT, FIXTURES AND SYSTEMS
3. ALL EXISTING FLOOR FINISHES THROUGHOUT ENTIRE BUILDING TO BE REMOVED, INCLUDING ADHESIVE RESIDUE
4. ALL EXISTING WALL BASE THROUGHOUT ENTIRE BUILDING TO BE REMOVED
5. ALL EXISTING INTERIOR SIGNS TO BE REMOVED; PATCH & REPAIR DAMAGE TO WALL RESULTING FROM SIGN REMOVAL
6. ALL EXISTING WALLS INDICATED TO BE REMOVED SHALL BE REMOVED FULL HEIGHT OF WALL, U.N.O.
7. SEE B5/AE521 FOR EXTENT OF DEMOLITION @ STEEL COLUMN LOCATIONS
8. ALL EXISTING FURNISHINGS TO BE REMOVED



MAIN LEVEL DEMOLITION PLAN
SCALE 1/8" = 1'-0"

KEY NOTES:

1. EXISTING DOOR AND HARDWARE TO BE REMOVED, EXISTING FRAME TO REMAIN
2. EXISTING SUSPENDED CONCRETE SLAB TO BE REMOVED
3. EXISTING DOOR, HARDWARE AND FRAME TO BE REMOVED
4. EXISTING WALL TO BE REMOVED
5. EXISTING WALL TO REMAIN; PATCH AND REPAIR AS REQUIRED TO ACHIEVE WALL FREE OF DEFECTS
6. EXISTING STAIR ASSEMBLY TO BE REMOVED; INCLUDING TREADS, RISERS, STRINGERS, HANDRAILS, FINISHES, ETC.
7. EXISTING MASONRY WALL TO BE REMOVED; TO HEIGHT OF 108'-0"; SAW CUT NEAREST MASONRY JOINT; FILL OPEN CELLS WITH MORTAR
8. EXISTING WINDOW ASSEMBLY TO BE REMOVED
9. EXISTING DOOR & FRAME TO REMAIN, EXISTING HARDWARE TO BE REMOVED ONLY AS REQUIRED TO FACILITATE INSTALLATION OF HARDWARE AS PER DOOR HARDWARE SCHEDULE
10. NOT USED
11. NOT USED
12. EXISTING OPERABLE PARTITION TO BE REMOVED
13. EXISTING HARDWOOD ATHLETIC FLOOR SYSTEM TO BE REMOVED
14. EXISTING WALL/CEILING MOUNTED BASKETBALL BASKET/BACKBOARD ASSEMBLY TO BE REMOVED
15. EXISTING CURTAIN AND CURTAIN RODS TO BE REMOVED; PATCH AND REPAIR WALL
16. EXISTING PROJECTION SCREEN TO BE REMOVED
17. EXISTING EXERCISE EQUIPMENT TO BE REMOVED
18. EXISTING METAL BRACKET TO BE REMOVED
19. EXISTING ROLLING SHUTTER, WINDOW AND COUNTER TOP TO BE REMOVED; SEE DETAIL D1/AE571 FOR MASONRY DEMO
20. ALL EXISTING AUDIO/VISUAL EQUIPMENT TO BE REMOVED
21. EXISTING PLUMBING FIXTURES, COUNTERS, BENCHES & WALL TILE TO BE REMOVED, PATCH & REPAIR ALL WALLS
22. EXISTING HANDRAIL, GUARDRAIL AND WALL BRACKETS TO BE REMOVED
23. EXISTING POST TO BE REMOVED
24. EXISTING FLOOR SHEATHING AND FLOOR JOIST TO BE REMOVED @ ELEVATOR OPENING
25. EXISTING CONCRETE SLAB TO BE REMOVED; SAW CUT, TYP. @ ALL FOOTING LOCATIONS
26. REMOVE EXISTING CMU TO TOP OF FOOTING, SEE E2/AE521
27. EXISTING MIRROR TO BE REMOVED
28. EXISTING WALL AND WINDOW ABOVE TO REMAIN
29. EXISTING WOOD TRIM/RAILS TO BE REMOVED, PATCH AND REPAIR DAMAGE TO WALL RESULTING FROM REMOVAL OF RAILS
30. EXISTING FIRE EXTINGUISHER CABINET TO REMAIN
31. EXISTING PIPE AND BRACKETS TO BE REMOVED
32. NOT USED
33. NOT USED
34. EXISTING BLINDS TO BE REMOVED
35. EXISTING WALL TO BE REMOVED TO AN ELEVATION OF 108'-0"
36. EXISTING WOOD SILL TO REMAIN
37. EXISTING PARTITION TO BE REMOVED
38. EXISTING JANITOR SINK TO BE REMOVED
39. EXISTING FIRE EXTINGUISHER CABINET TO BE REMOVED AND REINSTALLED @ CURRENT LOCATION
40. NOT USED
41. EXISTING WALL TO BE REMOVED; SAW CUT; SEE D1/AE521
42. EXISTING GYP. BD. TO BE REMOVED; THIS SIDE OF WALL
43. EXISTING FLOORING & SHEATHING TO BE REMOVED @ STAIR OPENING
44. EXISTING FURRING CHANNELS AND GYP. BD. TO BE REMOVED; PATCH & REPAIR EXISTING MASONRY WALL
45. EXISTING WOOD CAP TO BE REMOVED

LEGEND:

= = = = EXISTING WALL TO BE REMOVED

EXISTING DOOR TO BE REMOVED; SEE KEY NOTES FOR EXISTING HARDWARE & FRAME

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

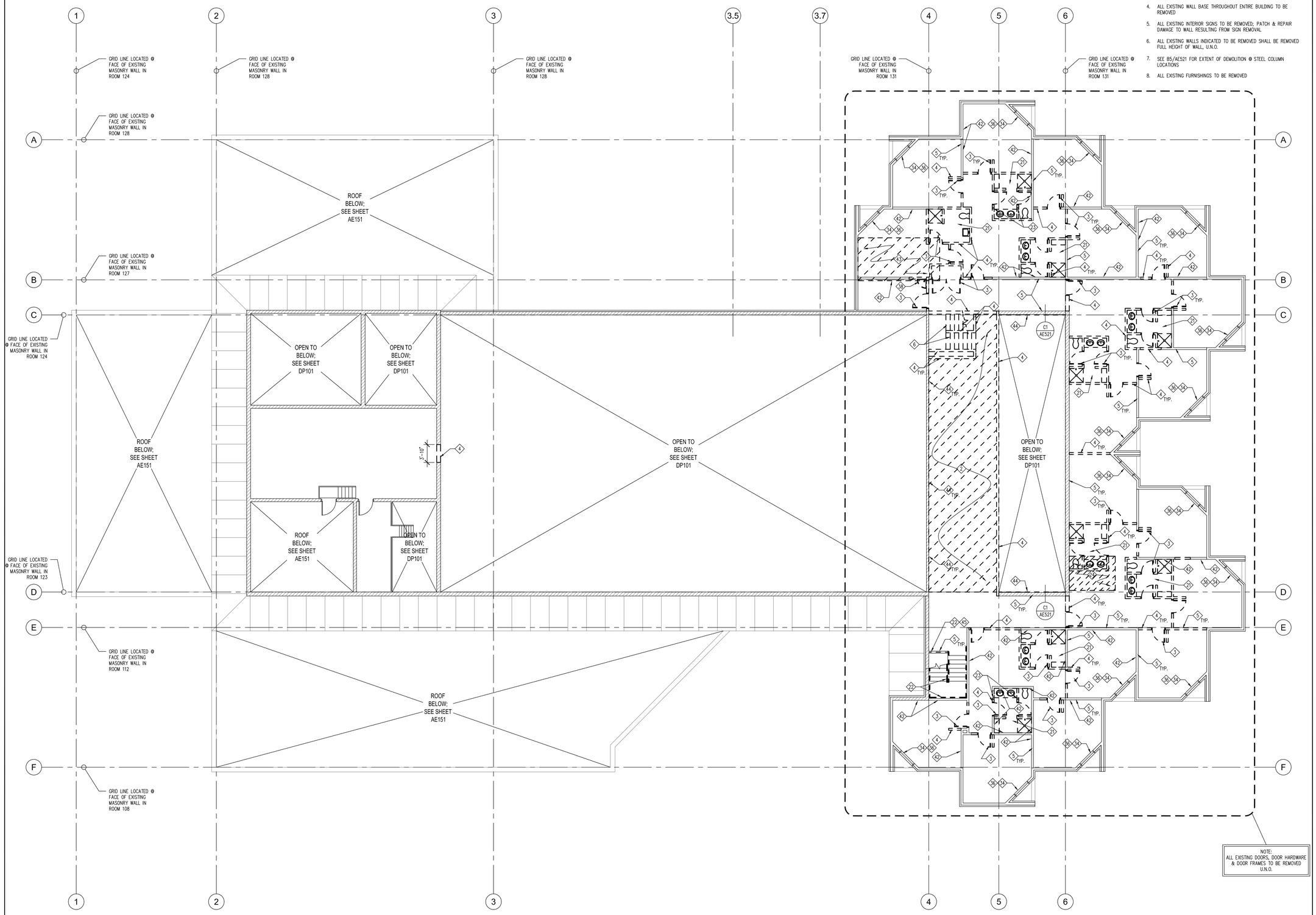
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

MAIN LEVEL DEMOLITION PLAN

DP 101

GENERAL NOTES:

1. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF MECHANICAL AND PLUMBING EQUIPMENT, FIXTURES AND SYSTEMS
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL EQUIPMENT, FIXTURES AND SYSTEMS
3. ALL EXISTING FLOOR FINISHES THROUGHOUT ENTIRE BUILDING TO BE REMOVED, INCLUDING ADHESIVE RESIDUE
4. ALL EXISTING WALL BASE THROUGHOUT ENTIRE BUILDING TO BE REMOVED
5. ALL EXISTING INTERIOR SIGNS TO BE REMOVED; PATCH & REPAIR DAMAGE TO WALL RESULTING FROM SIGN REMOVAL
6. ALL EXISTING WALLS INDICATED TO BE REMOVED SHALL BE REMOVED FULL HEIGHT OF WALL, U.N.O.
7. SEE B5/AE521 FOR EXTENT OF DEMOLITION @ STEEL COLUMN LOCATIONS
8. ALL EXISTING FURNISHINGS TO BE REMOVED



UPPER LEVEL DEMOLITION PLAN
SCALE 1/8" = 1'-0"

KEY NOTES:

1. EXISTING DOOR AND HARDWARE TO BE REMOVED, EXISTING FRAME TO REMAIN
2. EXISTING SUSPENDED CONCRETE SLAB TO BE REMOVED
3. EXISTING DOOR, HARDWARE AND FRAME TO BE REMOVED
4. EXISTING WALL TO BE REMOVED
5. EXISTING WALL TO REMAIN; PATCH AND REPAIR AS REQUIRED TO ACHIEVE WALL FREE OF DEFECTS
6. EXISTING STAIR ASSEMBLY TO BE REMOVED; INCLUDING TREADS, RISERS, STRINGERS, HANDRAILS, FINISHES, ETC.
7. EXISTING MASONRY WALL TO BE REMOVED; TO HEIGHT OF 108'-0"; SAW CUT NEAREST MASONRY JOINT; FILL OPEN CELLS WITH MORTAR
8. EXISTING WINDOW ASSEMBLY TO BE REMOVED
9. EXISTING DOOR & FRAME TO REMAIN, EXISTING HARDWARE TO BE REMOVED ONLY AS REQUIRED TO FACILITATE INSTALLATION OF HARDWARE AS PER DOOR HARDWARE SCHEDULE
10. NOT USED
11. NOT USED
12. EXISTING OPERABLE PARTITION TO BE REMOVED
13. EXISTING HARDWOOD ATHLETIC FLOOR SYSTEM TO BE REMOVED
14. EXISTING WALL/CEILING MOUNTED BASKETBALL BASKET/BACKBOARD ASSEMBLY TO BE REMOVED
15. EXISTING CURTAIN AND CURTAIN RODS TO BE REMOVED; PATCH AND REPAIR WALL
16. EXISTING PROJECTION SCREEN TO BE REMOVED
17. EXISTING EXERCISE EQUIPMENT TO BE REMOVED
18. EXISTING METAL BRACKET TO BE REMOVED
19. EXISTING ROLLING SHUTTER, WINDOW AND COUNTER TOP TO BE REMOVED; SEE DETAIL D1/AE571 FOR MASONRY DEMO
20. ALL EXISTING AUDIO/VISUAL EQUIPMENT TO BE REMOVED
21. EXISTING PLUMBING FIXTURES, COUNTERS, BENCHES & WALL TILE TO BE REMOVED, PATCH & REPAIR ALL WALLS
22. EXISTING HANDRAIL, GUARDRAIL AND WALL BRACKETS TO BE REMOVED
23. EXISTING POST TO BE REMOVED
24. EXISTING FLOOR SHEATHING AND FLOOR JOIST TO BE REMOVED @ ELEVATOR OPENING
25. EXISTING CONCRETE SLAB TO BE REMOVED; SAW CUT, TYP. @ ALL FOOTING LOCATIONS
26. REMOVE EXISTING CMU TO TOP OF FOOTING, SEE E2/AE521
27. EXISTING MIRROR TO BE REMOVED
28. EXISTING WALL AND WINDOW ABOVE TO REMAIN
29. EXISTING WOOD TRIM/RAILS TO BE REMOVED, PATCH AND REPAIR DAMAGE TO WALL RESULTING FROM REMOVAL OF RAILS
30. EXISTING FIRE EXTINGUISHER CABINET TO REMAIN
31. EXISTING PIPE AND BRACKETS TO BE REMOVED
32. NOT USED
33. NOT USED
34. EXISTING BLINDS TO BE REMOVED
35. EXISTING WALL TO BE REMOVED TO AN ELEVATION OF 108'-0"
36. EXISTING WOOD SILL TO REMAIN
37. EXISTING PARTITION TO BE REMOVED
38. EXISTING JANITOR SINK TO BE REMOVED
39. EXISTING FIRE EXTINGUISHER CABINET TO BE REMOVED AND REINSTALLED @ CURRENT LOCATION
40. NOT USED
41. EXISTING WALL TO BE REMOVED; SAW CUT; SEE D1/AE521
42. EXISTING GYP. BD. TO BE REMOVED; THIS SIDE OF WALL
43. EXISTING FLOORING & SHEATHING TO BE REMOVED @ STAIR OPENING
44. EXISTING FURRING CHANNELS AND GYP. BD. TO BE REMOVED; PATCH & REPAIR EXISTING MASONRY WALL
45. EXISTING WOOD CAP TO BE REMOVED

LEGEND:

= = = = EXISTING WALL TO BE REMOVED

EXISTING DOOR TO BE REMOVED; SEE KEY NOTES FOR EXISTING HARDWARE & FRAME

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

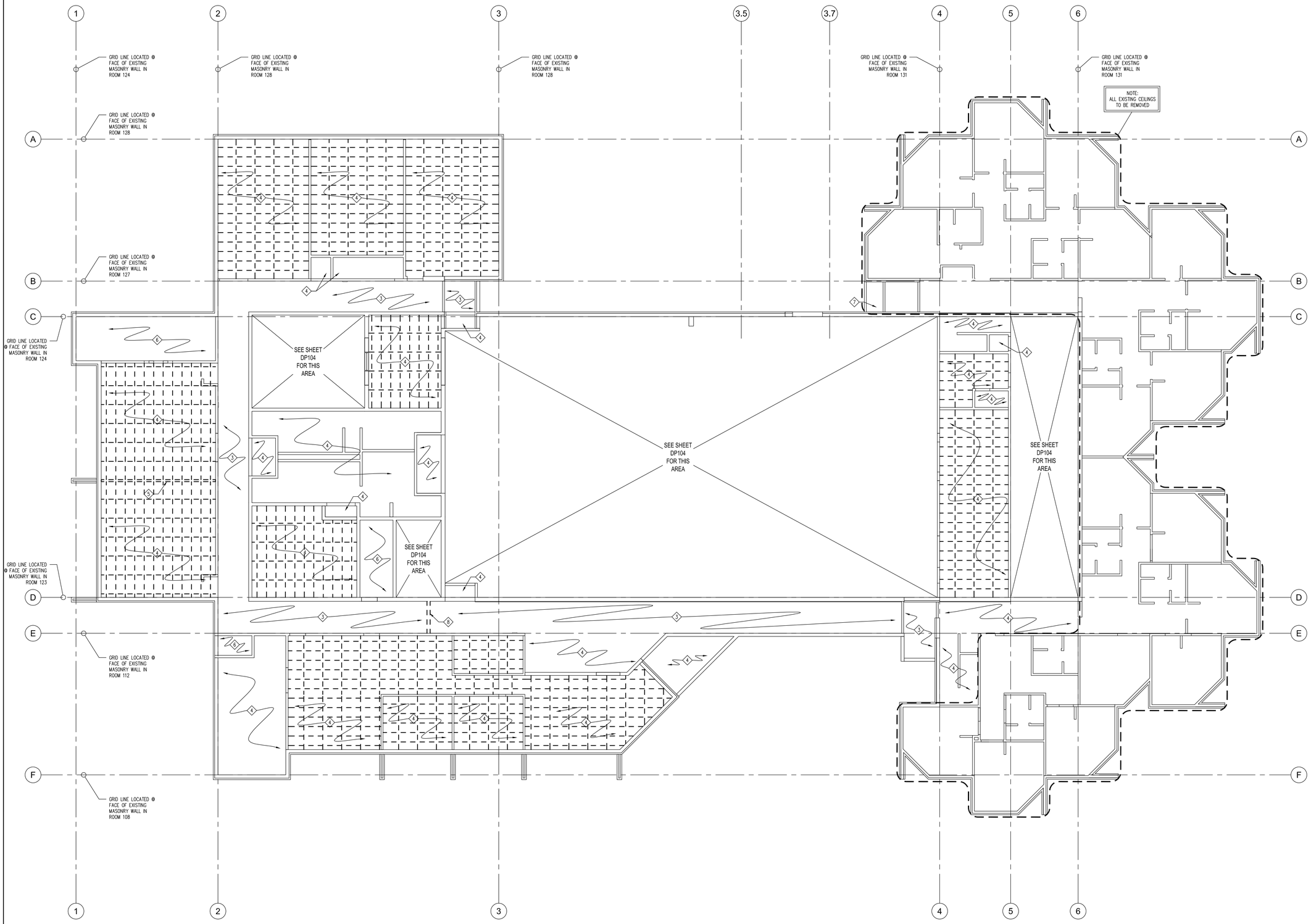
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

UPPER LEVEL DEMOLITION PLAN

DP 102



MAIN LEVEL REFLECTED CEILING DEMOLITION PLAN

SCALE 1/8" = 1'-0"

N

GENERAL NOTES:

1. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF MECHANICAL AND PLUMBING EQUIPMENT, FIXTURES AND SYSTEMS
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL EQUIPMENT, FIXTURES AND SYSTEMS
3. ALL EXISTING CEILING FINISHES THROUGHOUT ENTIRE BUILDING TO BE REMOVED, U.N.O.

KEY NOTES:

1. EXISTING SPEAKERS TO BE REMOVED
2. EXISTING OVERHEAD COIL PARTITION TO BE REMOVED
3. EXISTING CEILING TO REMAIN
4. EXISTING CEILING TO BE REMOVED
5. EXISTING PARTITION AND TRACK TO BE REMOVED
6. THIS AREA OPEN TO STRUCTURE; NO EXISTING CEILING
7. EXISTING SOFFIT SYSTEM TO BE REMOVED
8. EXISTING FRAMED ELEMENT TO BE REMOVED

REFLECTED CEILING PLAN LEGEND

EXISTING CEILING SYSTEM TO BE REMOVED IN IT'S ENTIRETY

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

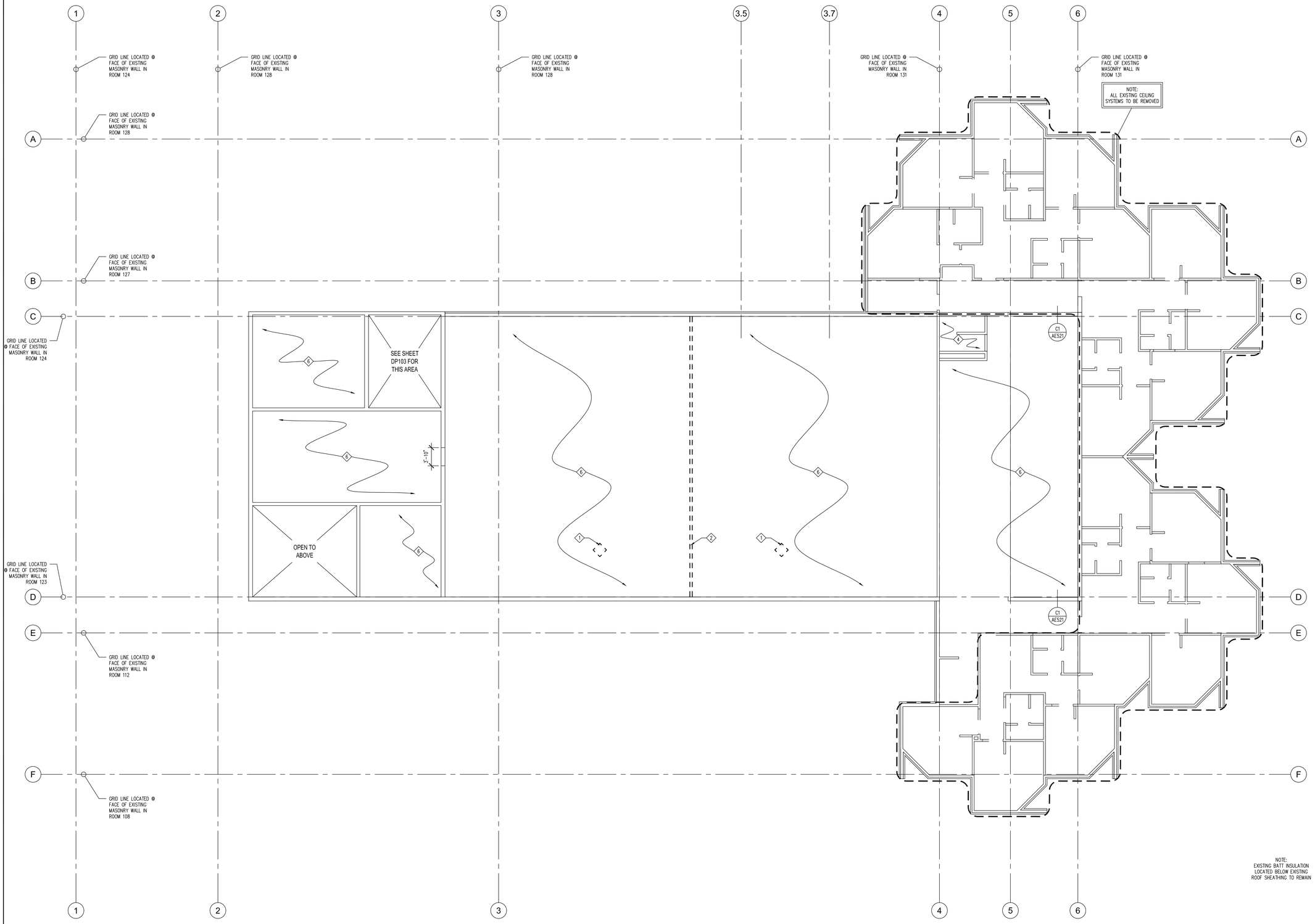
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

MAIN LEVEL REFLECTED CEILING DEMOLITION PLAN

DP 103



UPPER LEVEL REFLECTED CEILING DEMOLITION PLAN

SCALE 1/8" = 1'-0"

GENERAL NOTES:

1. SEE MECHANICAL AND PLUMBING DRAWINGS FOR DEMOLITION OF MECHANICAL AND PLUMBING EQUIPMENT, FIXTURES AND SYSTEMS
2. SEE ELECTRICAL DRAWINGS FOR DEMOLITION OF ELECTRICAL EQUIPMENT, FIXTURES AND SYSTEMS
3. ALL EXISTING CEILING FINISHES THROUGHOUT ENTIRE BUILDING TO BE REMOVED, U.N.O.

KEY NOTES:

1. EXISTING SPEAKERS TO BE REMOVED
2. EXISTING OVERHEAD COIL PARTITION TO BE REMOVED
3. EXISTING CEILING TO REMAIN
4. EXISTING CEILING TO BE REMOVED
5. EXISTING PARTITION AND TRACK TO BE REMOVED
6. THIS AREA OPEN TO STRUCTURE; NO EXISTING CEILING
7. EXISTING SOFFIT SYSTEM TO BE REMOVED
8. EXISTING FRAMED ELEMENT TO BE REMOVED

REFLECTED CEILING PLAN LEGEND

EXISTING CEILING SYSTEM TO BE REMOVED IN IT'S ENTIRETY

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

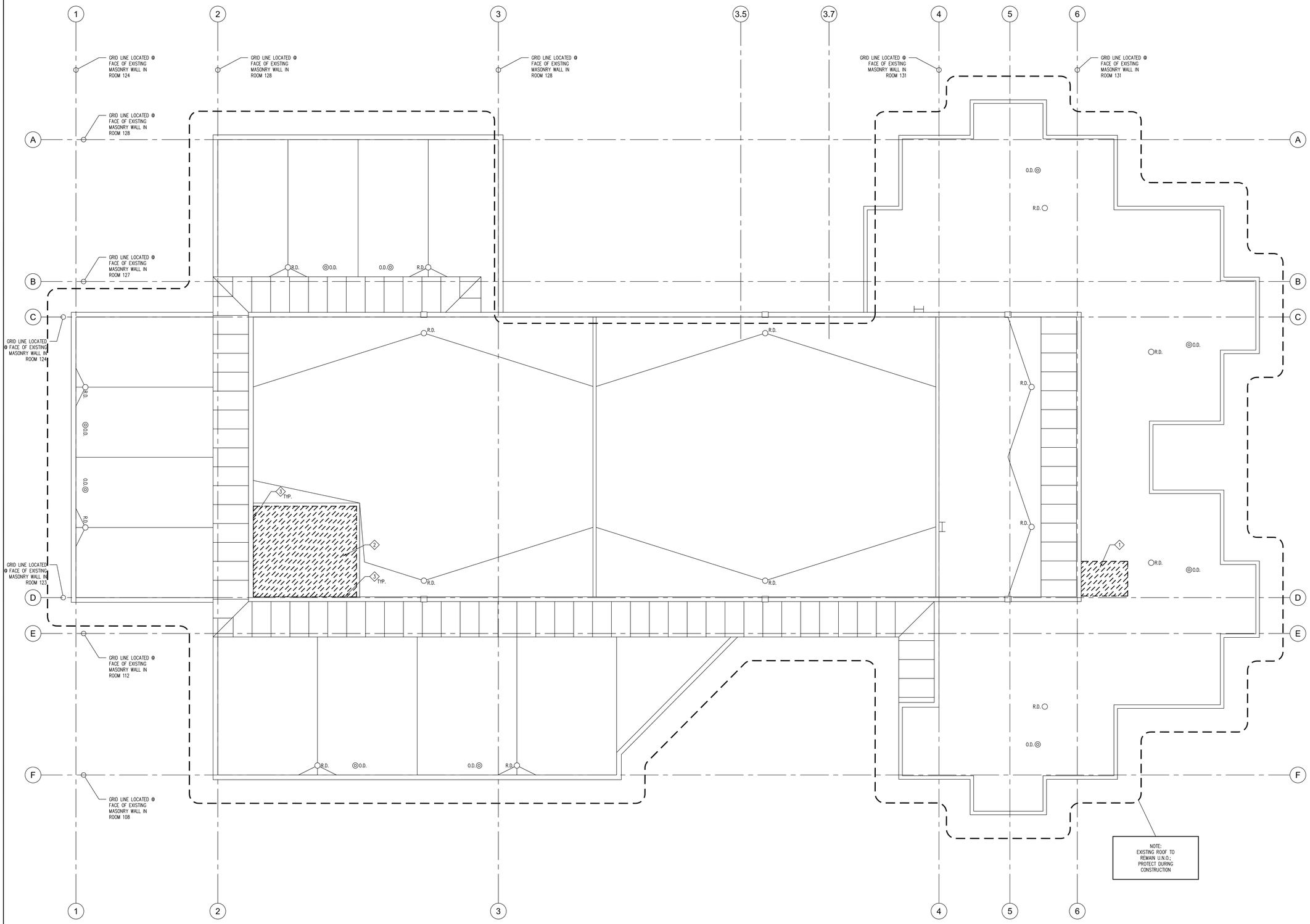
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

UPPER LEVEL REFLECTED CEILING DEMOLITION PLAN

DP 104



ROOF DEMOLITION PLAN

SCALE 1/8" = 1'-0"

N

KEY NOTES:

1. EXISTING ROOF SYSTEM AND ROOF JOISTS TO BE REMOVED TO FACILITATE ELEVATOR PENTHOUSE CONSTRUCTION
2. EXISTING BUILT-UP ROOF SYSTEM AND RIGID INSULATION TO BE REMOVED
3. EXISTING 2-PIECE SHEET METAL COUNTER FLASHING TO BE REMOVED

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

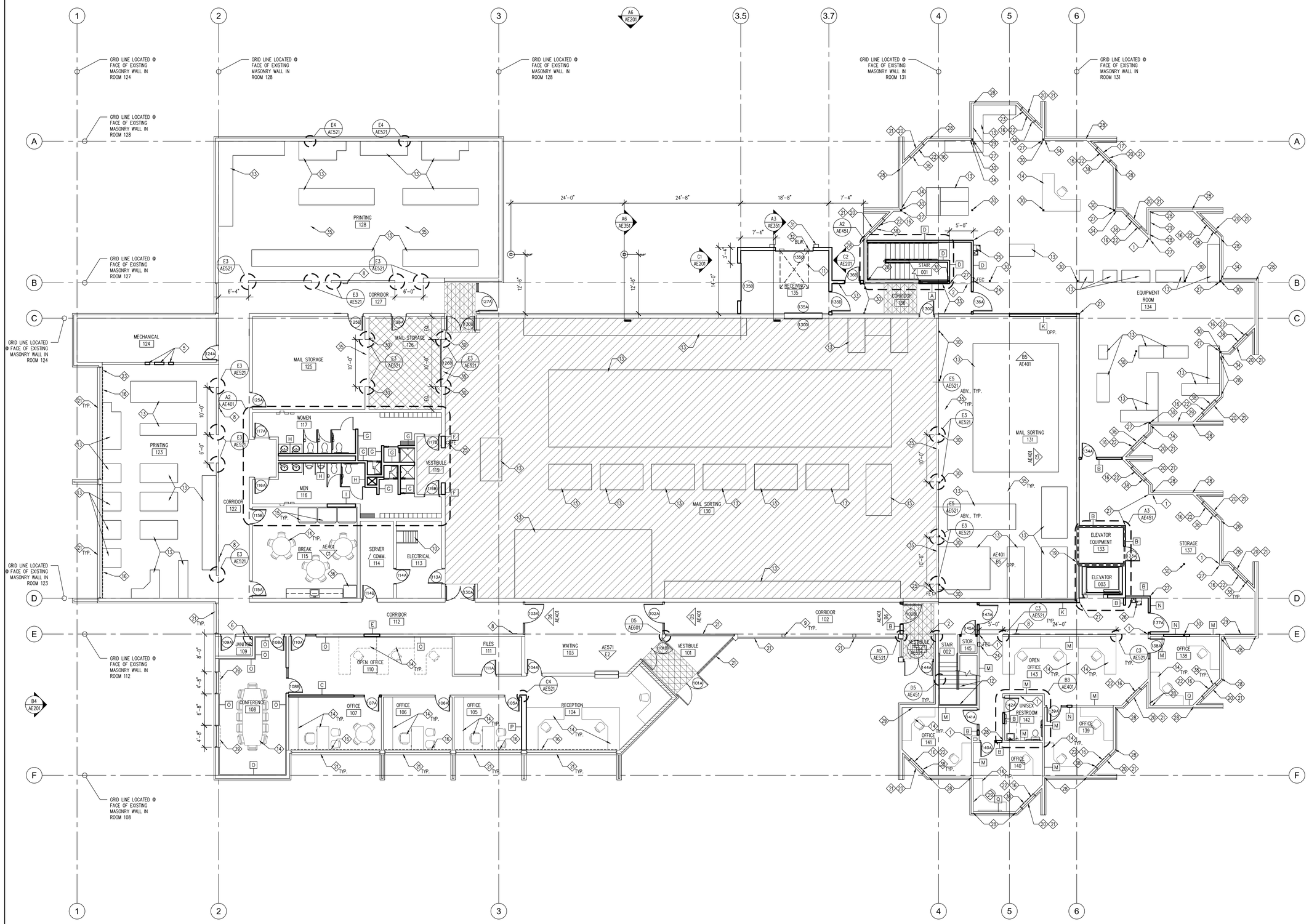
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

ROOF DEMOLITION PLAN

DP 105

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD, U.N.O.
2. SEE C3/AE521 FOR CONDITION ❶ TRANSITION POINT OF EXISTING WALLS TO REMAIN & EXISTING WALLS TO BE REMOVED,NEATLY CUT GYP. BD. & FRAMING BETWEEN EXISTING GYP. SCHEDULED TO REMAIN AND THAT SCHEDULED TO BE REMOVED; TYP. ❶ ALL LOCATIONS
3. SEE E4/AE401 FOR STANDARD MOUNTING HEIGHTS



MAIN LEVEL FLOOR PLAN
SCALE 1/8" = 1'-0"

KEY NOTES:

1. PATCH GAP IN EXISTING WALL FINISH TO MATCH EXISTING CONSTRUCTION, RESULTING FROM DEMOLITION OF ADJACENT WALLS; TYP. @ ALL LOCATIONS
2. FLOOR FINISH TRANSITION
3. SHELVING, SEE A3/AE571
4. NOT USED
5. INFILL OPENINGS WITH CMU, MATCH EXISTING CMU
6. 3'-0" x 3'-0" WALL TILE ON (2) WALLS ADJACENT TO JANITOR SINK
7. NOT USED
8. EXISTING F.E. CABINET TO REMAIN; PROVIDE AND INSTALL F.E. IN EXISTING CABINET
9. EXISTING GYP. BD. COLUMN WRAP; PATCH, REPAIR AND PAINT
10. EXISTING SHIPS LADDER/STAIR, GUARD AND HANDRAIL TO REMAIN; PAINT
11. DOCK LEVELER
12. 1 1/2" STAINLESS STEEL PIPE HANDRAIL; RETURN TO WALL
13. PRINTING / SORTING EQUIPMENT / FURNITURE, N.I.C.
14. FURNITURE, N.I.C.
15. VENDING MACHINES, N.I.C.
16. ROLLER BLIND; FULL HEIGHT OF WINDOW
17. REPLACE DAMAGED GLAZING WITH GLAZING MATCHING EXISTING
18. REPAIR WINDOW UNIT TO FUNCTION PROPERLY
19. REPAIR DAMAGE TO EXISTING WALL
20. REPLACE EXISTING WINDOW SCREEN ASSEMBLY WITH ALUMINUM FRAMED SCREEN ASSEMBLY TO MATCH EXISTING SCREEN ASSEMBLY
21. CLEAN EXISTING GLAZING & WINDOW FRAME; REMOVE ALL DIRT, MINERAL DEPOSITS AND RESIDUE FROM INTERIOR AND EXTERIOR OF GLAZING AND ALUMINUM FRAME
22. EXISTING WOOD WINDOW SILL TO REMAIN; SAND SMOOTH AND PAINT, WINDOW SILLS TO BE PAINTED DIFFERENT COLOR THAN WALLS
23. PATCH & REPAIR WATER DAMAGED GYP. BD.; REPLACE GYP. BD. AS REQUIRED
24. FIRE EXTINGUISHER AND CABINET
25. FIRE EXTINGUISHER AND WALL BRACKET
26. DRINKING FOUNTAIN; SEE PLUMBING DRAWINGS
27. CORNER GUARD
28. INSTALL 5/8" GYP. BD. AT AREA OF WALL REMOVED FOR INSTALLATION OF STRUCTURAL HOLD DOWN; PATCH, REPAIR & PAINT, TYPICAL @ ALL HOLD DOWN LOCATIONS, SEE SHEET S610; PROVIDE & INSTALL WOOD NAILERS AS REQUIRED FOR GYP. BD. INSTALLATION
29. INSTALL 5/8" GYP. BD. OVER WOOD SHEATHING ENTIRE LENGTH OF WALL
30. STEEL COLUMN; SEE STRUCTURAL DRAWINGS; PAINT WHERE EXPOSED TO VIEW
31. DOCK DOOR SEAL
32. DOCK BUMPER
33. 5/8" FINISH GRADE PLYWOOD EXTENDING TO A HEIGHT OF 4'-0" A.F.F.; ATTACH W/ SCREWS @ 6" O.C. W/ ROWS OF SCREWS @ 16" O.C.; SCREWS TO BE HOT DIP GALVANIZED, 3 1/2" LONG
34. PATCH & REPAIR GYP. BD. AS REQUIRED; SEE B5/AE521
35. INFILL VOID IN EXISTING CONCRETE SLAB @ ALL LOCATIONS OF DEMOLISHED MASONRY WALLS, SEE E2/AE521
36. REFRIGERATOR, N.I.C.
37. ICE MACHINE, N.I.C.
38. PATCH & REPAIR WALL @ LOCATION OF DEMOLISHED MECHANICAL UNIT
39. ROLLER BLIND; FULL HEIGHT OF WINDOW, DOUBLE ROLLER UNIT W/ BLACK-OUT SCREEN

LEGEND:

- 901 / ROOM 000 — DOOR TAG, SEE DOOR SCHEDULE SHEET AE601; ROOM TAG, SEE FINISH SCHEDULE AE601
- INFILL DEPRESSION (RESULTING FROM DEMOLISHED HARDWOOD ATHLETIC FLOOR SYSTEM) W/ CONCRETE; F.F.: 100'-0"; APPROXIMATE DEPTH OF DEPRESSION: 2 7/8"; APPLY BONDING AGENT TO SURFACE OF EXISTING CONCRETE
- INFILL RECESS IN EXISTING FLOOR (RESULTING FROM DEMOLISHED ACCESS FLOOR SYSTEM) W/ 6" CONCRETE SLAB OVER COMPACTED BASE; T.O. SLAB TO BE 100'-0"
- INFILL 1/2" RECESS IN EXISTING CONCRETE SLAB W/ HYDRAULIC CEMENT UNDERLAYMENT
- 1-HOUR RATED CONSTRUCTION; SEE C5/AE511 & D5/AE511 FOR PENETRATION & T.O. WALL DETAILS

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

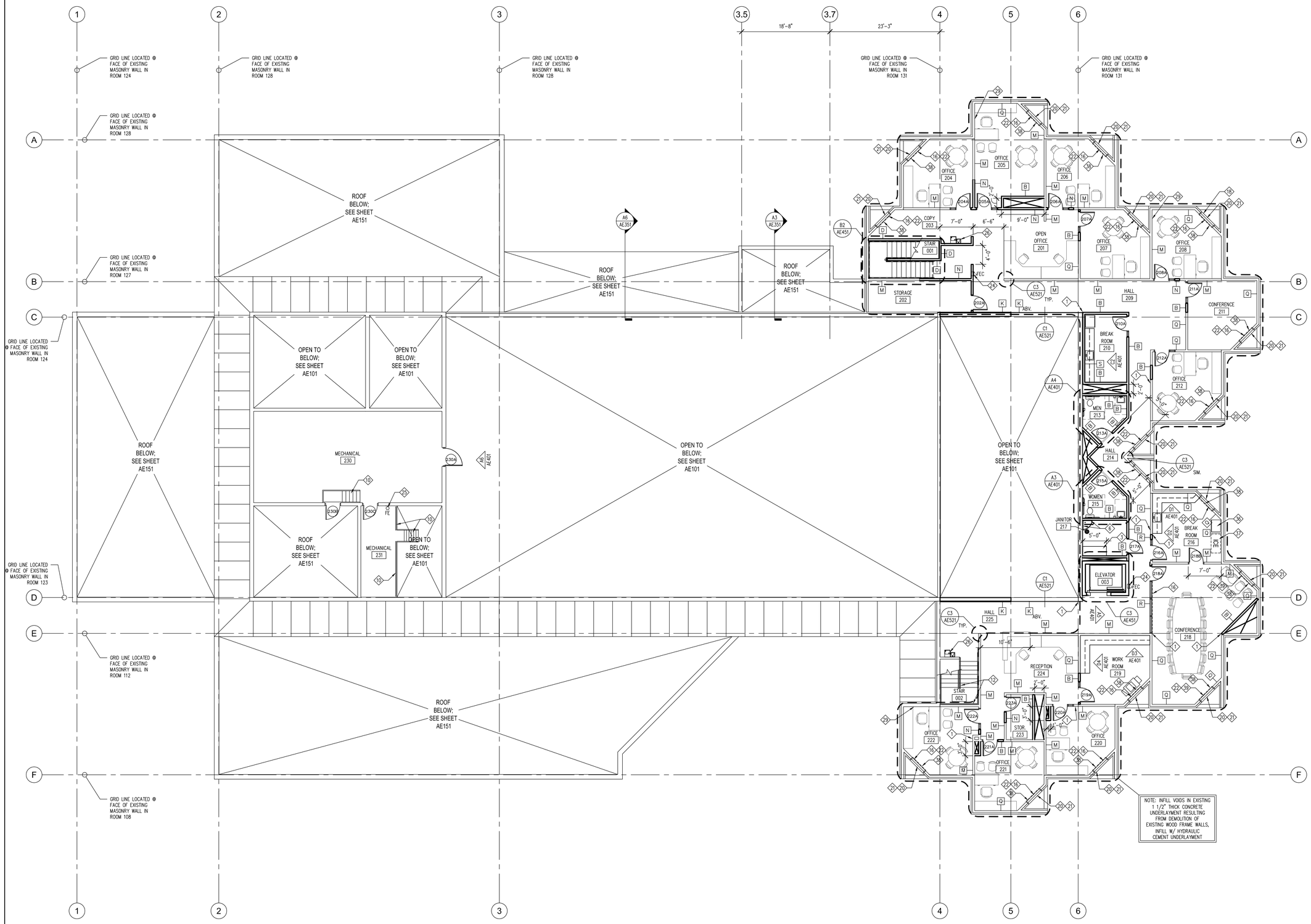
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

MAIN LEVEL FLOOR PLAN

AE 101

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF STUD, U.N.O.
2. SEE C3/AE521 FOR CONDITION ❶ TRANSITION POINT OF EXISTING WALLS TO REMAIN & EXISTING WALLS TO BE REMOVED,NEATLY CUT GYP. BD. & FRAMING BETWEEN EXISTING GYP. SCHEDULED TO REMAIN AND THAT SCHEDULED TO BE REMOVED; TYP. ❶ ALL LOCATIONS
3. SEE E4/AE401 FOR STANDARD MOUNTING HEIGHTS



UPPER LEVEL FLOOR PLAN
SCALE 1/8" = 1'-0"

KEY NOTES:

1. PATCH GAP IN EXISTING WALL FINISH TO MATCH EXISTING CONSTRUCTION, RESULTING FROM DEMOLITION OF ADJACENT WALLS; TYP. ❶ ALL LOCATIONS
2. FLOOR FINISH TRANSITION
3. SHELVING, SEE A3/AE571
4. NOT USED
5. INFILL OPENINGS WITH CMU, MATCH EXISTING CMU
6. 3'-0" x 3'-0" WALL TILE ON (2) WALLS ADJACENT TO JANITOR SINK
7. NOT USED
8. EXISTING F.E. CABINET TO REMAIN; PROVIDE AND INSTALL F.E. IN EXISTING CABINET
9. EXISTING GYP. BD. COLUMN WRAP; PATCH, REPAIR AND PAINT
10. EXISTING SHIPS LADDER/STAIR, GUARD AND HANDRAIL TO REMAIN; PAINT
11. DOCK LEVELER
12. 1 1/2" STAINLESS STEEL PIPE HANDRAIL; RETURN TO WALL
13. PRINTING / SORTING EQUIPMENT / FURNITURE, N.I.C.
14. FURNITURE, N.I.C.
15. VENDING MACHINES, N.I.C.
16. ROLLER BLIND; FULL HEIGHT OF WINDOW
17. REPLACE DAMAGED GLAZING WITH GLAZING MATCHING EXISTING
18. REPAIR WINDOW UNIT TO FUNCTION PROPERLY
19. REPAIR DAMAGE TO EXISTING WALL
20. REPLACE EXISTING WINDOW SCREEN ASSEMBLY WITH ALUMINUM FRAMED SCREEN ASSEMBLY TO MATCH EXISTING SCREEN ASSEMBLY
21. CLEAN EXISTING GLAZING & WINDOW FRAME; REMOVE ALL DIRT, MINERAL DEPOSITS AND RESIDUE FROM INTERIOR AND EXTERIOR OF GLAZING AND ALUMINUM FRAME
22. EXISTING WOOD WINDOW SILL TO REMAIN; SAND SMOOTH AND PAINT, WINDOW SILLS TO BE PAINTED DIFFERENT COLOR THAN WALLS
23. PATCH & REPAIR WATER DAMAGED GYP. BD.; REPLACE GYP. BD. AS REQUIRED
24. FIRE EXTINGUISHER AND CABINET
25. FIRE EXTINGUISHER AND WALL BRACKET
26. DRINKING FOUNTAIN; SEE PLUMBING DRAWINGS
27. CORNER GUARD
28. INSTALL 5/8" GYP. BD. AT AREA OF WALL REMOVED FOR INSTALLATION OF STRUCTURAL HOLD DOWN; PATCH, REPAIR & PAINT, TYPICAL ❶ ALL HOLD DOWN LOCATIONS, SEE SHEET S610; PROVIDE & INSTALL WOOD NAILERS AS REQUIRED FOR GYP. BD. INSTALLATION
29. INSTALL 5/8" GYP. BD. OVER WOOD SHEATHING ENTIRE LENGTH OF WALL
30. STEEL COLUMN; SEE STRUCTURAL DRAWINGS; PAINT WHERE EXPOSED TO VIEW
31. DOCK DOOR SEAL
32. DOCK BUMPER
33. 5/8" FINISH GRADE PLYWOOD EXTENDING TO A HEIGHT OF 4'-0" A.F.F.; ATTACH W/ SCREWS ❶ 6" O.C. W/ ROWS OF SCREWS ❶ 16" O.C.; SCREWS TO BE HOT DIP GALVANIZED, 3 1/2" LONG
34. PATCH & REPAIR GYP. BD. AS REQUIRED; SEE B5/AE521
35. INFILL VOID IN EXISTING CONCRETE SLAB ❶ ALL LOCATIONS OF DEMOLISHED MASONRY WALLS, SEE E2/AE521
36. REFRIGERATOR, N.I.C.
37. ICE MACHINE, N.I.C.
38. PATCH & REPAIR WALL ❶ LOCATION OF DEMOLISHED MECHANICAL UNIT
39. ROLLER BLIND; FULL HEIGHT OF WINDOW, DOUBLE ROLLER UNIT W/ BLACK-OUT SCREEN

LEGEND:

- 001 — DOOR TAG, SEE DOOR SCHEDULE SHEET AE601
- ROOM 000 — ROOM TAG, SEE FINISH SCHEDULE AE601
- INFILL DEPRESSION (RESULTING FROM DEMOLISHED HARDWOOD ATHLETIC FLOOR SYSTEM) W/ CONCRETE; F.F.: 100'-0"; APPROXIMATE DEPTH OF DEPRESSION: 2 7/8"; APPLY BONDING AGENT TO SURFACE OF EXISTING CONCRETE
- INFILL RECESS IN EXISTING FLOOR (RESULTING FROM DEMOLISHED ACCESS FLOOR SYSTEM) W/ 6" CONCRETE SLAB OVER COMPACTED BASE; T.O. SLAB TO BE 100'-0"
- INFILL 1/2" RECESS IN EXISTING CONCRETE SLAB W/ HYDRAULIC CEMENT UNDERLAYMENT
- 1-HOUR RATED CONSTRUCTION; SEE C5/AE511 & D5/AE511 FOR PENETRATION & T.O. WALL DETAILS

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

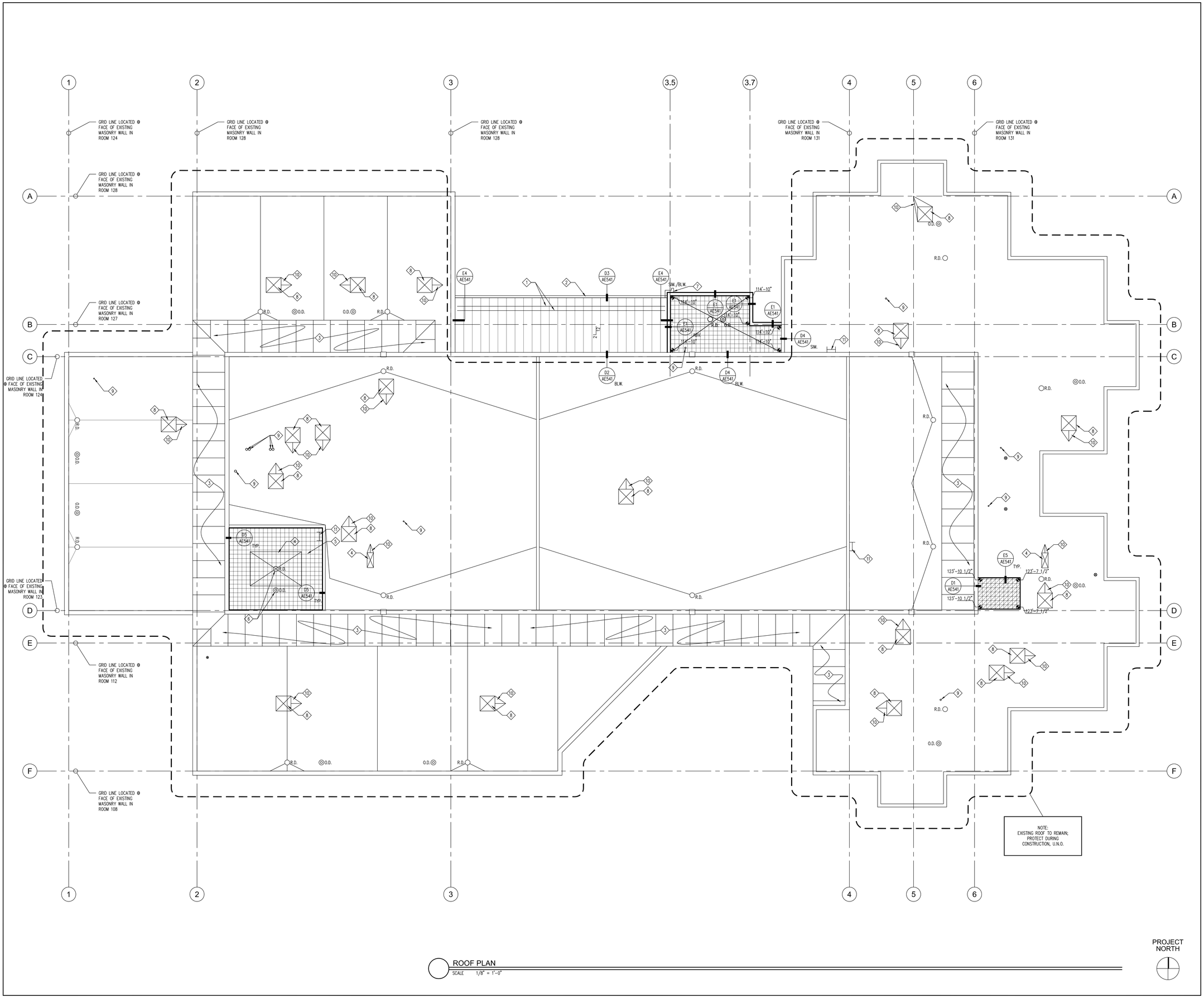
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

UPPER LEVEL FLOOR PLAN

AE 102



ROOF PLAN
SCALE 1/8" = 1'-0"

GENERAL NOTES:

1. --

KEY NOTES:

1. CONT. SNOW GUARD
2. COMPLETE GUTTER SYSTEM
3. EXISTING SKYLIGHT SYSTEM TO REMAIN
4. MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
5. 3'-0" WIDE WALK PAD, CONT. AROUND ALL SIDES OF COOLING TOWER
6. EXISTING ROOF DRAIN TO REMAIN; REPLACE STRAINER
7. DOWNSPOUT LOCATION
8. MECHANICAL EQUIPMENT, SEE C4/AE541
9. PIPE / VENT PENETRATION, SEE C2/AE541
10. TAPERED INSULATION @ 1/4" PER FT.; PATCH & REPAIR EXISTING ROOF SYSTEM AS REQUIRED TO ACHIEVE A WATER TIGHT SYSTEM
11. EXISTING LADDER TO REMAIN

LEGEND:

- PIPE PENETRATION, SEE DETAIL E3/AE541 & C2/AE541
- R.D. PRIMARY ROOF DRAIN, SEE DETAIL E2/AE541
- O.D. OVERFLOW ROOF DRAIN, SEE DETAIL E2/AE541
- DECK BEARING ELEVATION
- MECHANICAL EQUIPMENT, SEE DETAIL C1/AE541
- SINGLE-PLY MEMBRANE SYSTEM OVER RIGID INSULATION SLOPED TO DRAIN @ 1/4" PER FT. OVER 3" RIGID INSULATION
- METAL ROOF PANEL SYSTEM
- SINGLE-PLY MEMBRANE SYSTEM OVER 3" RIGID INSULATION, STRUCTURE IS SLOPED

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

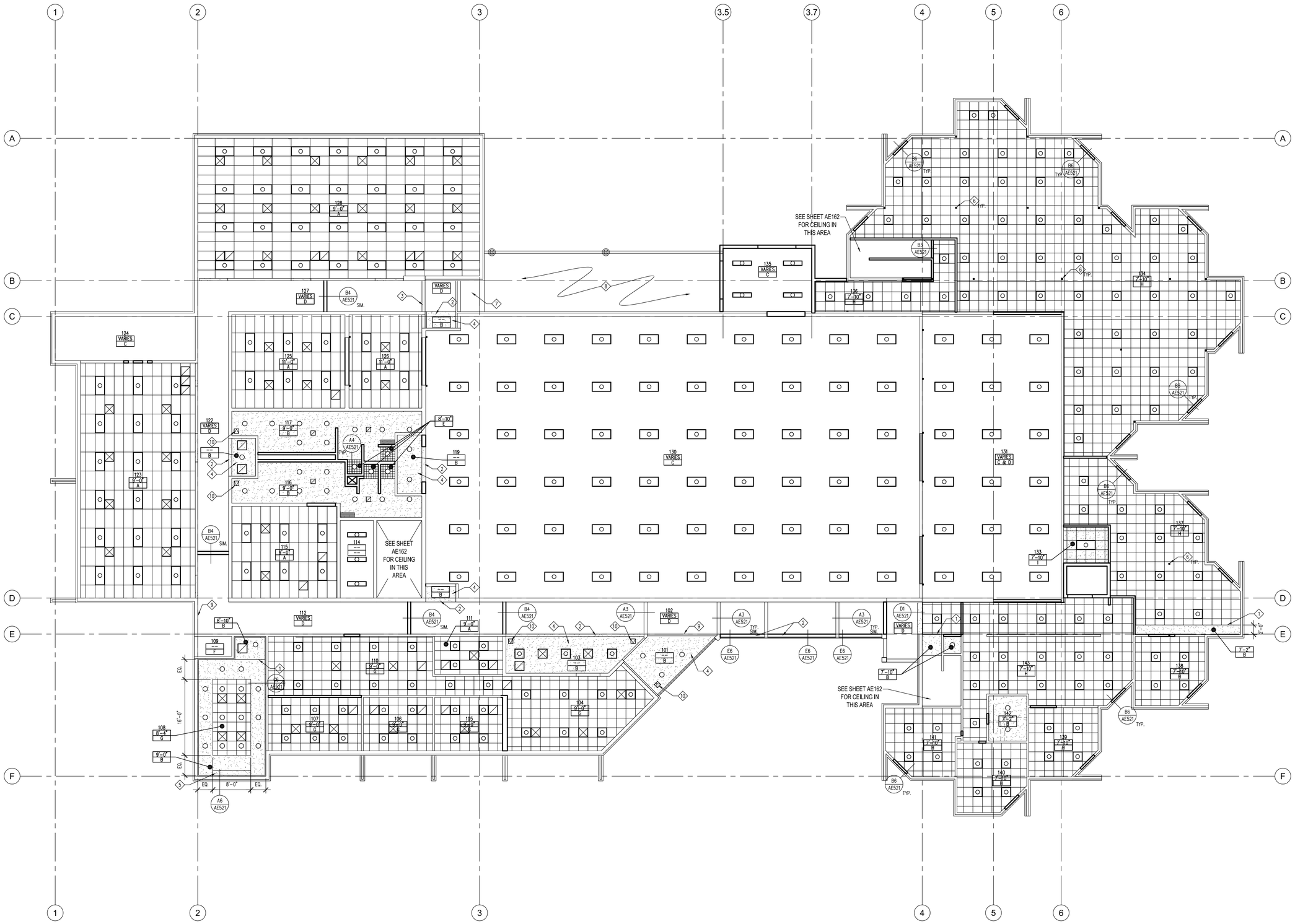
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	07014

ROOF PLAN

AE 151



MAIN LEVEL REFLECTED CEILING PLAN

SCALE 1/8" = 1'-0"

GENERAL NOTES:

1. SEE B1/AE521, A1/AE521, & A2/AE521 FOR TYPICAL SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM DETAILS
2. SEE B1/AE521 FOR TYPICAL SUSPENDED GYP. BD. CEILING SYSTEM DETAIL

KEY NOTES:

1. FRAMED GYP. BD. FACIA
2. EXISTING SOFFIT; PATCH, REPAIR AND PAINT
3. APPLY 5/8" GYP. BD. TO B.O. SOFFIT
4. MATCH HEIGHT OF EXISTING CEILING
5. PROJECTOR SCREEN (QUANTITY: (2))
6. STEEL COLUMN, SEE STRUCT. DRAWINGS, PAINT
7. EXISTING SOFFIT TO REMAIN; PATCH, REPAIR & PAINT
8. CANOPY; PAINT
9. PAINT EXISTING 2X WOOD BLOCKING EXPOSED DUE TO ELECTRICAL FIXTURE DEMOLITION
10. 12"x12" RECESSED ACCESS DOOR (CEILING); SEE SPECIFICATION SECTION 083113

CEILING TYPES:

A – 2'-0" X 4'-0" SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM

B – SUSPENDED GYPSUM BOARD CEILING SYSTEM

C – EXPOSED STRUCTURE; PAINT

D – EXISTING SKYLIGHT SYSTEM, TO REMAIN

E – 6" X 6" WALL TILE OVER SUSPENDED CONTINUOUS BACKER BOARD

F – EXISTING CEILING TO REMAIN; PATCH, REPAIR & PAINT

G – 2'-0" X 2'-0" SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM, TYPE 1

H – 2'-0" X 2'-0" SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM, TYPE 2

I – 1-HOUR FLOOR-CEILING ASSEMBLY; COMPLY W/ UL DESIGN L502

REFLECTED CEILING PLAN LEGEND

- RETURN AIR GRILL, SEE MECHANICAL DRAWINGS
- SUPPLY AIR GRILL, SEE MECHANICAL DRAWINGS
- ROOM NUMBER / CEILING HEIGHT / CEILING TYPE
- 2X4 FLUORESCENT LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
- 2X4 FLUORESCENT LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
- RECESSED DOWN LIGHT, SEE ELECTRICAL DRAWINGS
- CEILING MOUNT LIGHT, SEE ELECTRICAL DRAWINGS
- INDIRECT FIXTURE, SEE ELECTRICAL DRAWINGS
- 12"x12" RECESSED ACCESS DOOR-CEILING; SEE SPECIFICATION SECTION 083113

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

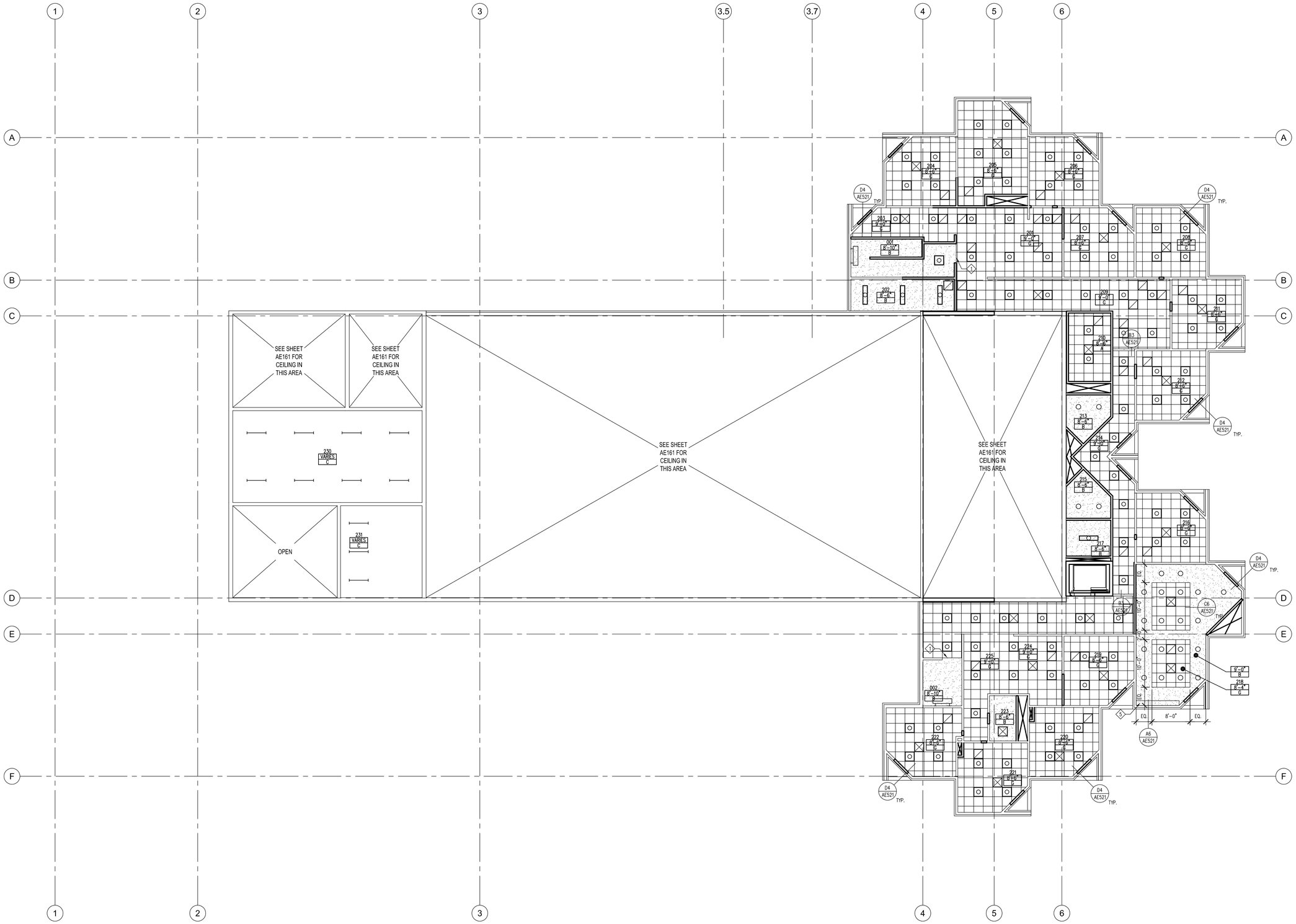
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

MAIN LEVEL REFLECTED CEILING PLAN

AE 161



UPPER LEVEL REFLECTED CEILING PLAN

SCALE 1/8" = 1'-0"

GENERAL NOTES:

1. SEE B1/AE521, A1/AE521, & A2/AE521 FOR TYPICAL SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM DETAILS
2. SEE B1/AE521 FOR TYPICAL SUSPENDED GYP. BD. CEILING SYSTEM DETAIL

KEY NOTES:

1. FRAMED GYP. BD. FACIA
2. EXISTING SOFFIT; PATCH, REPAIR AND PAINT
3. APPLY 5/8" GYP. BD. TO B.O. SOFFIT
4. MATCH HEIGHT OF EXISTING CEILING
5. PROJECTOR SCREEN (QUANTITY: (2))
6. STEEL COLUMN, SEE STRUCT. DRAWINGS, PAINT
7. EXISTING SOFFIT TO REMAIN; PATCH, REPAIR & PAINT
8. CANOPY; PAINT
9. PAINT EXISTING 2X WOOD BLOCKING EXPOSED DUE TO ELECTRICAL FIXTURE DEMOLITION
10. 12"x12" RECESSED ACCESS DOOR (CEILING); SEE SPECIFICATION SECTION 083113

CEILING TYPES:

A – 2'-0" X 4'-0" SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM

B – SUSPENDED GYPSUM BOARD CEILING SYSTEM

C – EXPOSED STRUCTURE; PAINT

D – EXISTING SKYLIGHT SYSTEM, TO REMAIN

E – 6" X 6" WALL TILE OVER SUSPENDED CONTINUOUS BACKER BOARD

F – EXISTING CEILING TO REMAIN; PATCH, REPAIR & PAINT

G – 2'-0" X 2'-0" SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM, TYPE 1

H – 2'-0" X 2'-0" SUSPENDED ACOUSTICAL PANEL CEILING SYSTEM, TYPE 2

REFLECTED CEILING PLAN LEGEND

- RETURN AIR GRILL, SEE MECHANICAL DRAWINGS
- SUPPLY AIR GRILL, SEE MECHANICAL DRAWINGS
- EXT. / 9'-0" / --- — ROOM NUMBER, CEILING HEIGHT, CEILING TYPE
- 2X4 FLUORESCENT LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
- 2X4 FLUORESCENT LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
- RECESSED DOWN LIGHT, SEE ELECTRICAL DRAWINGS
- CEILING MOUNT LIGHT, SEE ELECTRICAL DRAWINGS
- INDIRECT FIXTURE, SEE ELECTRICAL DRAWINGS
- 12"x12" RECESSED ACCESS DOOR–CEILING; SEE SPECIFICATION SECTION 083113

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

UPPER LEVEL REFLECTED CEILING PLAN

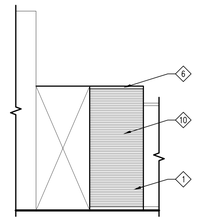
AE 162

KEY NOTES:

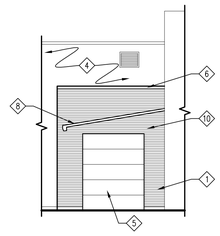
1. HOLLOW BRICK; MATCH EXISTING BRICK COLOR
2. ALUMINUM STOREFRONT SYSTEM
3. PRE-CAST CONCRETE SILL
4. EXISTING MASONRY BEYOND, TO REMAIN
5. SCHEDULED DOOR AND FRAME
6. SHEET METAL FLASHING
7. STEEL COLUMN, PAINT
8. METAL ROOF PANEL SYSTEM
9. 1'-6" DIAMETER X 3'-0" HIGH CONCRETE BASE; 3/4" CHAMFER @ ALL EXPOSED CORNERS
10. APPLY WATER REPELLANT TO ENTIRE WALL
11. DOWNSPOUT

GLAZING SCHEDULE

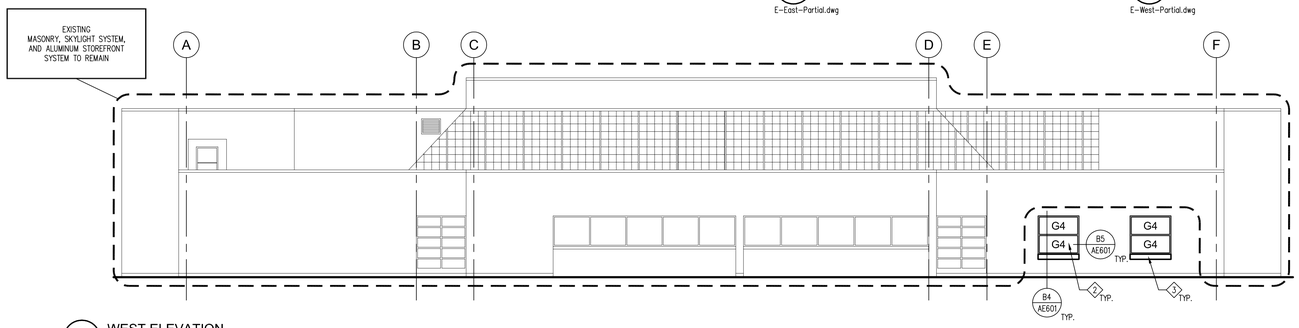
G1	1/4" CLEAR - TEMPERED
G2	1/4" CLEAR
G3	1" INSULATED - TEMPERED
G4	1" INSULATED



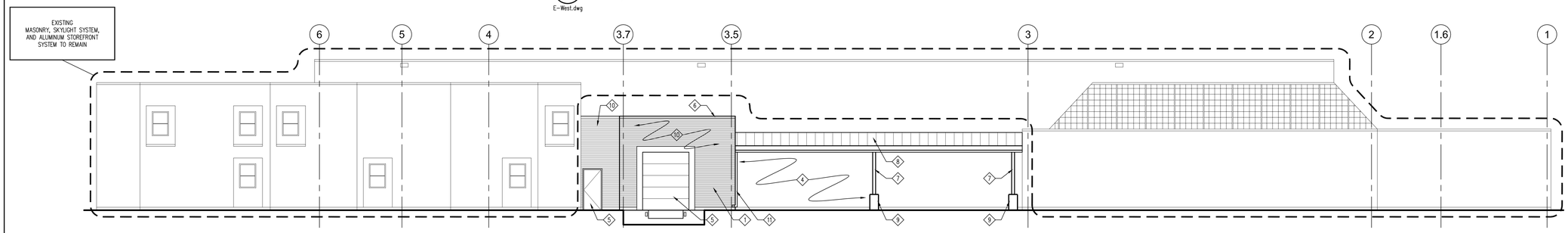
C2 AE201 PARTIAL EAST ELEVATION
SCALE 1/8" = 1'-0"
E-East-Partial.dwg



C1 AE201 PARTIAL WEST ELEVATION
SCALE 1/8" = 1'-0"
E-West-Partial.dwg



B4 AE201 WEST ELEVATION
SCALE 1/8" = 1'-0"
E-West.dwg



A6 AE201 NORTH ELEVATION
SCALE 1/8" = 1'-0"
E-North.dwg

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

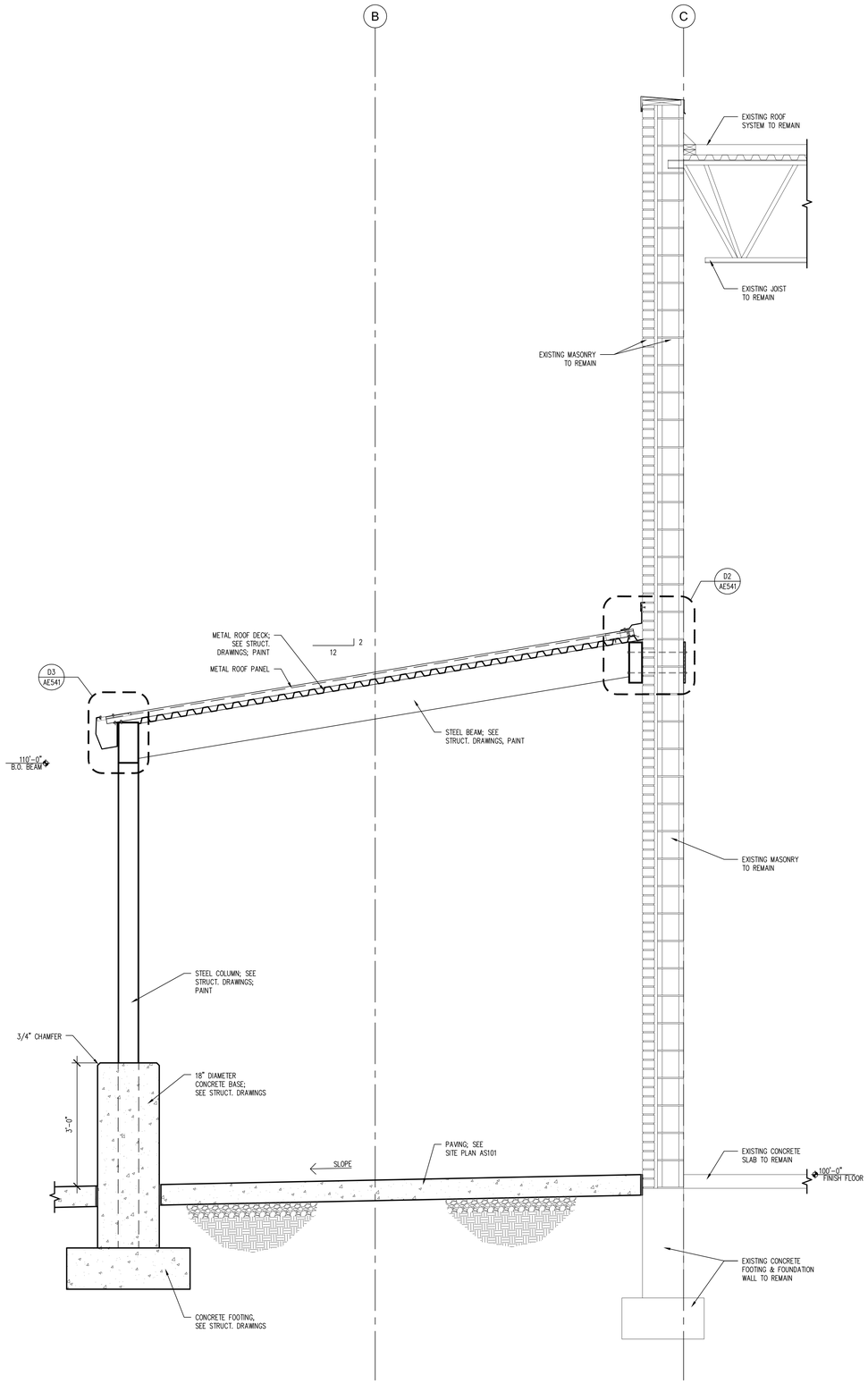
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

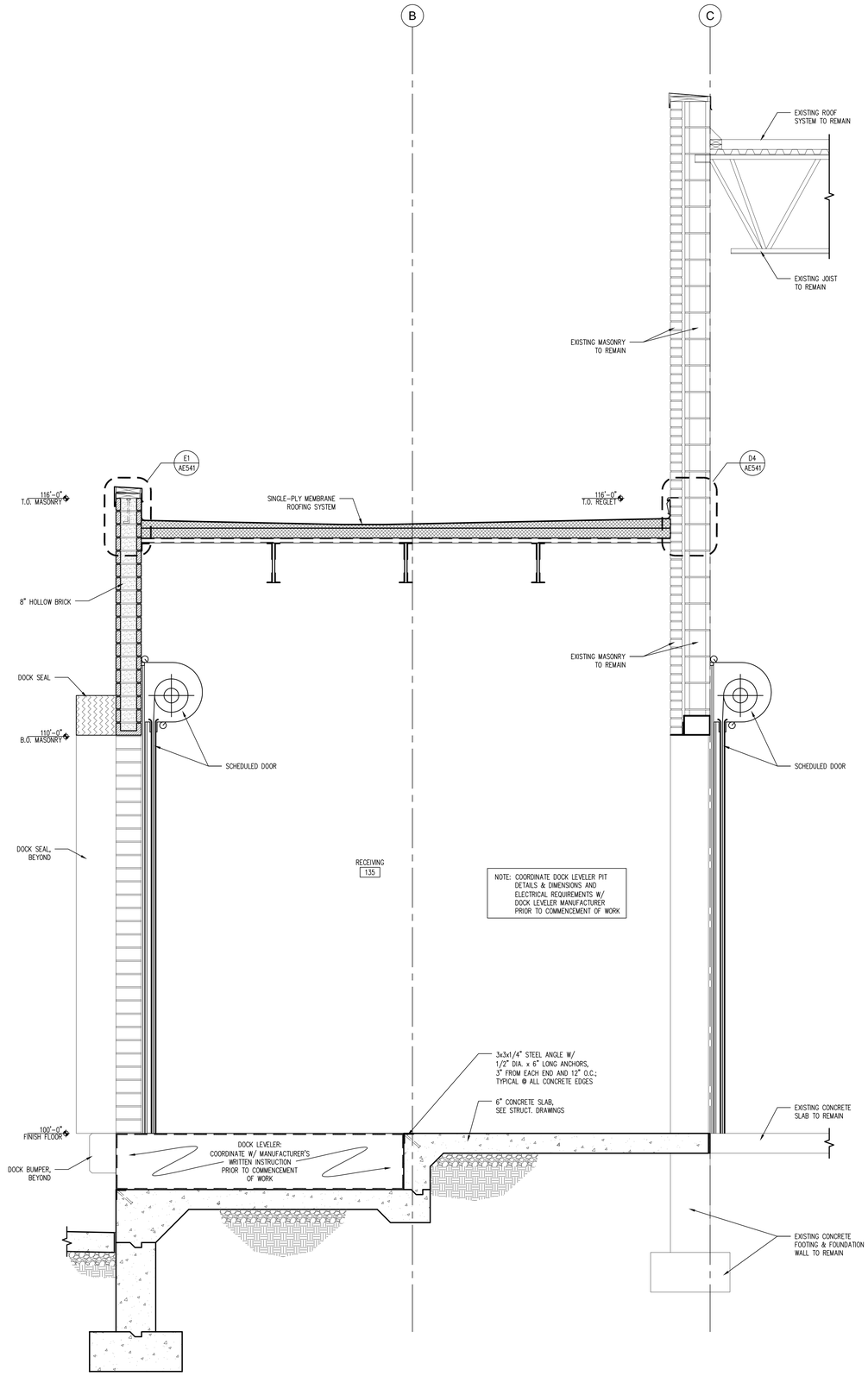
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

EXTERIOR ELEVATIONS

AE 201



A6 / AE351 WALL SECTION
SCALE 3/4" = 1'-0"
W-01.dwg



A3 / AE351 WALL SECTION
SCALE 3/4" = 1'-0"
W-02.dwg

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

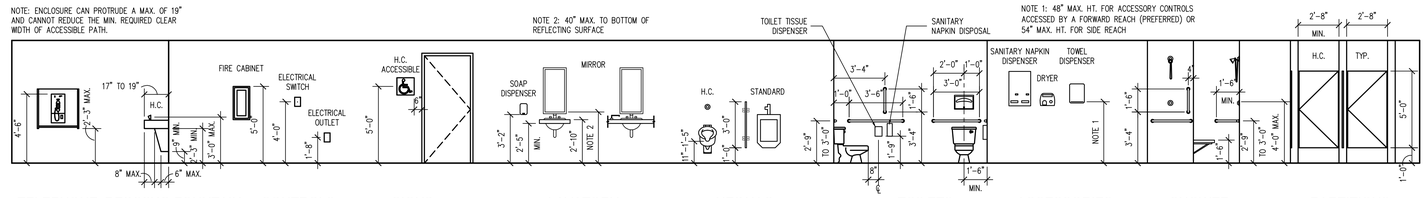
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

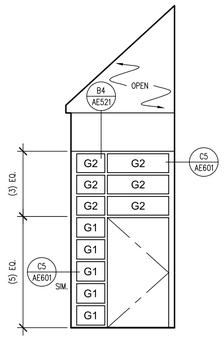
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

WALL SECTIONS

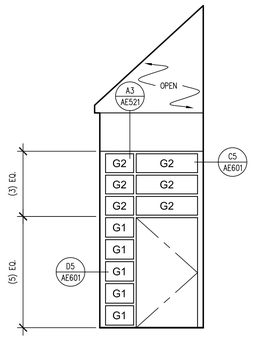
AE 351



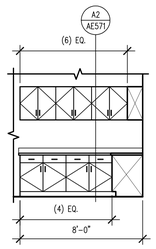
E4 AE401 STANDARD MOUNTING HEIGHTS
E-STANDARDS.DWG
SCALE 1/4" = 1'-0"



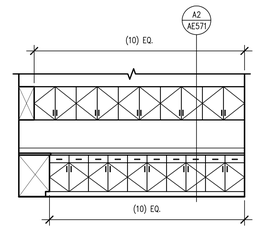
D6 AE401 INTERIOR ELEVATION
E-08.dwg
SCALE 1/4" = 1'-0"



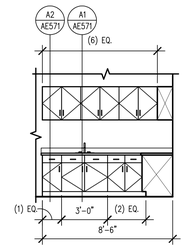
D5 AE401 INTERIOR ELEVATION
E-07.dwg
SCALE 1/4" = 1'-0"



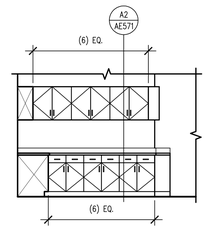
D4 AE401 MILLWORK ELEVATION - WORK ROOM 219
E-05.dwg
SCALE 1/4" = 1'-0"



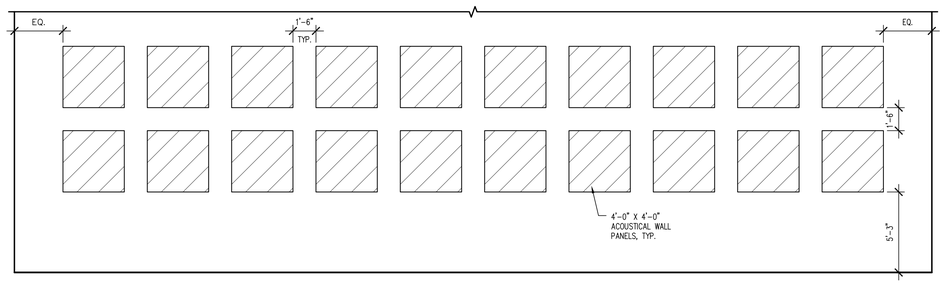
D3 AE401 MILLWORK ELEVATION - WORK ROOM 219
E-06.dwg
SCALE 1/4" = 1'-0"



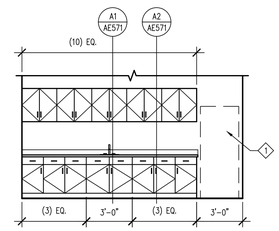
D2 AE401 MILLWORK ELEVATION - BREAK 216
E-04.dwg
SCALE 1/4" = 1'-0"



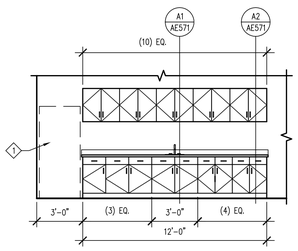
D1 AE401 MILLWORK ELEVATION - BREAK 216
E-03.dwg
SCALE 1/4" = 1'-0"



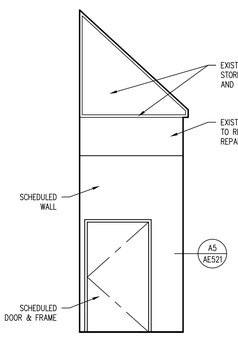
C5 AE401 INTERIOR ELEVATION
E-11.dwg
SCALE 1/4" = 1'-0"



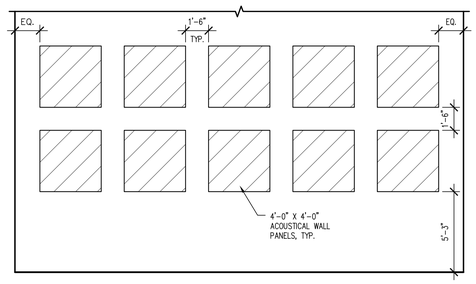
C2 AE401 MILLWORK ELEVATION - BREAK 210
E-02.dwg
SCALE 1/4" = 1'-0"



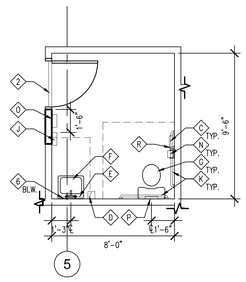
C1 AE401 MILLWORK ELEVATION - BREAK 115
E-01.dwg
SCALE 1/4" = 1'-0"



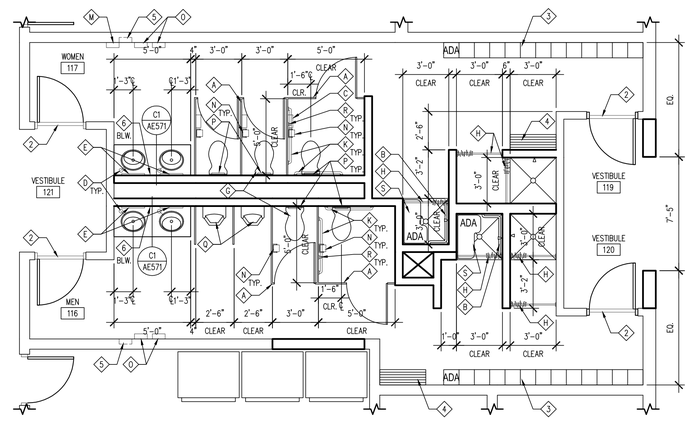
B6 AE401 INTERIOR ELEVATION
E-09.dwg
SCALE 1/4" = 1'-0"



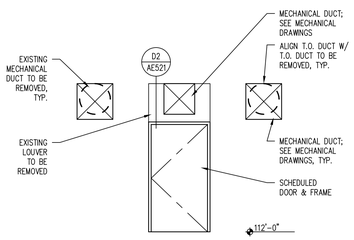
B5 AE401 INTERIOR ELEVATION
E-10.dwg
SCALE 1/4" = 1'-0"



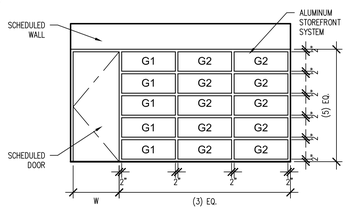
B3 AE401 ENLARGED PLAN - UNISEX RESTROOM 142
P-08.dwg
SCALE 1/4" = 1'-0"



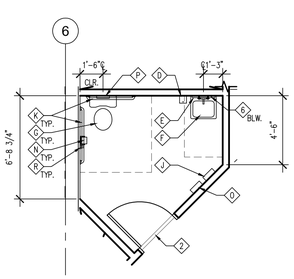
A2 AE401 ENLARGED PLAN
P-01.dwg
SCALE 1/4" = 1'-0"



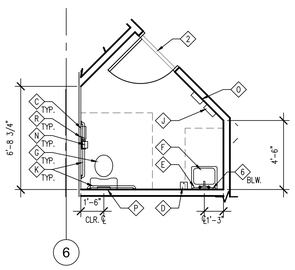
A6 AE401 INTERIOR ELEVATION
E-12.dwg
SCALE 1/4" = 1'-0"



A5 AE401 INTERIOR ELEVATION
E-13.dwg
SCALE 1/4" = 1'-0"



A4 AE401 ENLARGED PLAN - MEN 213
P-03.dwg
SCALE 1/4" = 1'-0"



A3 AE401 ENLARGED PLAN - WOMEN 215
P-02.dwg
SCALE 1/4" = 1'-0"

GENERAL NOTES:

1. SEE SPECIFICATIONS FOR COMPLETE LIST OF REQUIRED TOILET ACCESSORIES
2. SEE E4/AE401 FOR STANDARD MOUNTING HEIGHTS

KEY NOTES:

1. REFRIGERATOR, N.I.C.
2. THRESHOLD
3. 12" x 12" DOUBLE TIER METAL LOCKER
4. FIXED BENCH BY LOCKER MANUFACTURER
5. INFILL RECESS IN EXISTING MASONRY WALL RESULTING FROM DEMOLITION OF TOILET ACCESSORY WITH MASONRY MATCHING EXISTING ADJACENT MASONRY
6. 12"x12" STAINLESS STEEL ACCESS DOOR; SEE SPECIFICATION 083113

GLAZING SCHEDULE

G1	1/4" CLEAR – TEMPERED
G2	1/4" CLEAR
G3	1" INSULATED – TEMPERED
G4	1" INSULATED

TOILET ACCESSORY NOTES:

- A TOILET PARTITION
- B SHOWER GRAB BAR
- C SANITARY NAPKIN RECEPTACLE
- D SOAP DISPENSER
- E MIRROR
- F LAVATORY; SEE PLUMBING DRAWINGS
- G WATER CLOSET, SEE PLUMBING DRAWINGS
- H SHOWER CURTAIN, ROD & HOOKS
- J WASTE RECEPTACLE
- K 36" & 42" GRAB BARS
- L NOT USED
- M VENDING
- N TOILET TISSUE DISPENSER, N.I.C. – PROVIDE BACKING
- O PAPER TOWEL DISPENSER, N.I.C. – PROVIDE BACKING
- P TOILET SEAT COVER DISPENSER, N.I.C. – PROVIDE BACKING
- Q URINAL, SEE PLUMBING DRAWINGS
- R 18" VERTICAL GRAB BAR
- S ADA FOLDING SHOWER SEAT

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

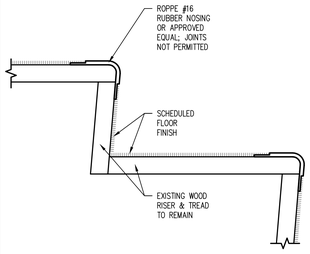
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

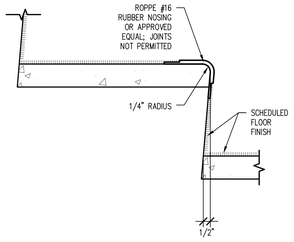
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

ENLARGED PLANS / INTERIOR ELEVATIONS

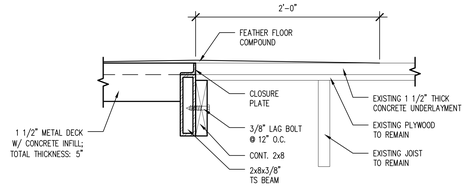
AE 401



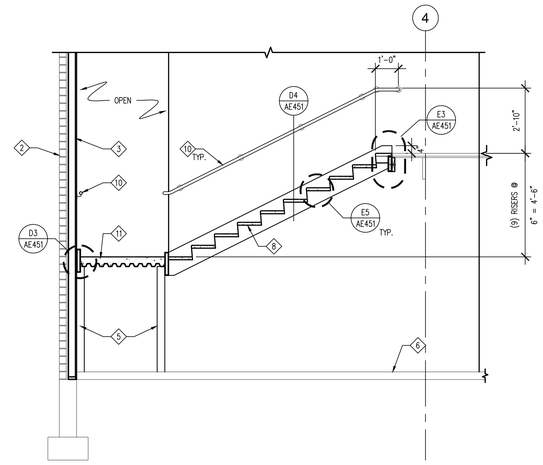
E6 / AE451 STAIR NOSING DETAIL
SCALE 3" = 1'-0"
5-05.dwg



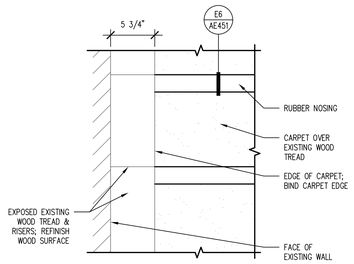
E5 / AE451 TREAD NOSING DETAIL
SCALE 3" = 1'-0"
5-04.dwg



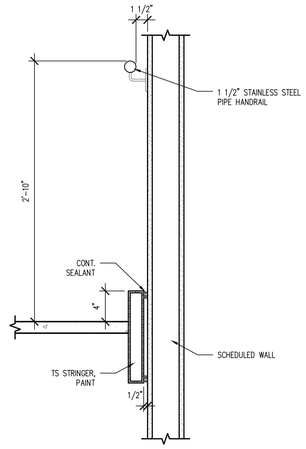
E3 / AE451 STAIR LANDING DETAIL
SCALE 1 1/2" = 1'-0"
5-03.dwg



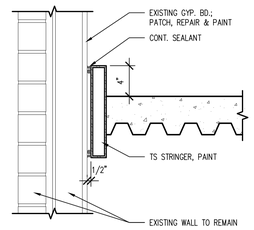
D2 / AE451 STAIR 001 - SECTION
SCALE 3/8" = 1'-0"
5-02.dwg



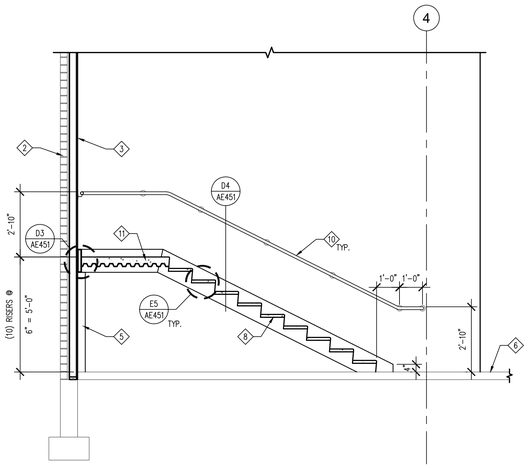
D5 / AE451 STAIR DETAIL
SCALE 1 1/2" = 1'-0"
5-06.dwg



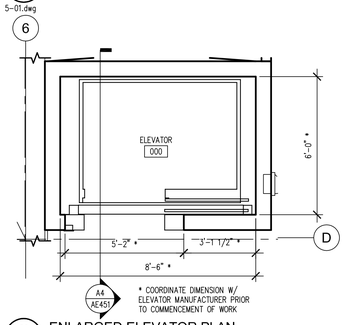
D4 / AE451 STAIR DETAIL
SCALE 1 1/2" = 1'-0"
5-02.dwg



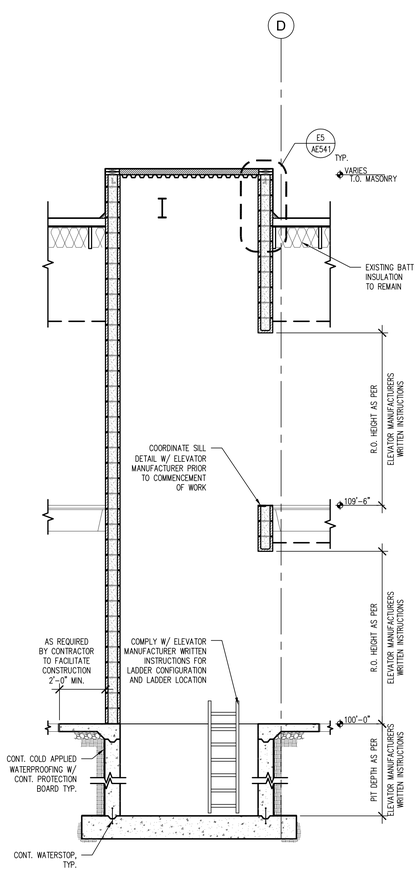
D3 / AE451 STRINGER DETAIL
SCALE 1 1/2" = 1'-0"
5-01.dwg



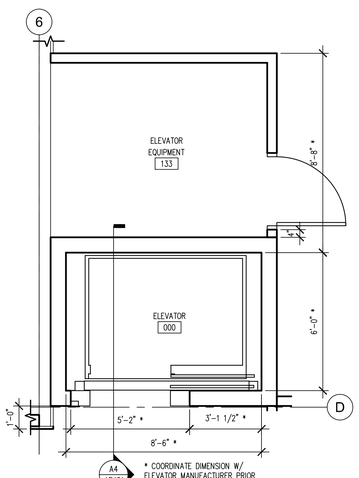
C2 / AE451 STAIR 001 - SECTION
SCALE 3/8" = 1'-0"
S-01.dwg



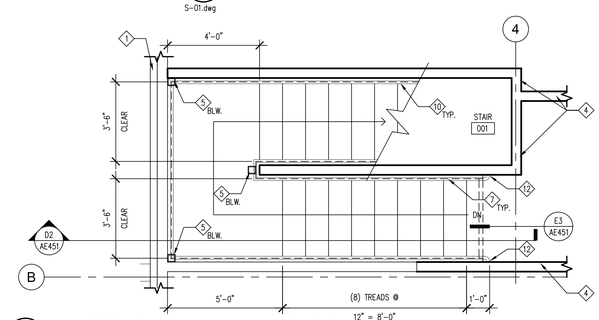
C3 / AE451 ENLARGED ELEVATOR PLAN
SCALE 3/8" = 1'-0"
P-07.dwg



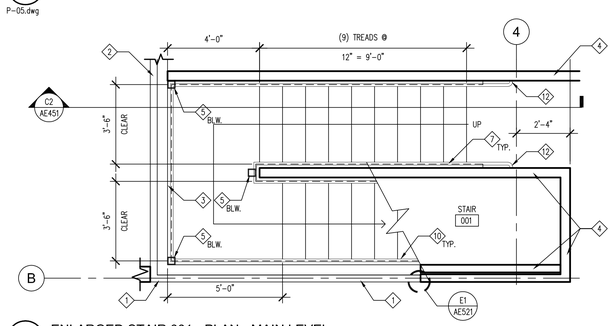
A4 / AE451 SECTION @ ELEVATOR
SCALE 3/8" = 1'-0"
S-04.dwg



A3 / AE451 ENLARGED ELEVATOR PLAN
SCALE 3/8" = 1'-0"
P-06.dwg



B2 / AE451 ENLARGED STAIR 001 - PLAN - UPPER LEVEL
SCALE 3/8" = 1'-0"
P-05.dwg



A2 / AE451 ENLARGED STAIR 001 - PLAN - MAIN LEVEL
SCALE 3/8" = 1'-0"
P-04.dwg

KEY NOTES:

1. EXISTING BRICK VENEER TO REMAIN; PATCH, REPAIR & PAINT
2. EXISTING WALL TO REMAIN; PROTECT DURING CONSTRUCTION
3. PATCH, REPAIR & PAINT EXISTING GYP. BOARD
4. SCHEDULED WALL
5. 4 X 4 X 3/8" TUBE STEEL COLUMN
6. EXISTING CONCRETE SLAB TO REMAIN
7. DASHED LINE INDICATES STRINGER
8. STEEL PAN STAIR WITH CONCRETE INFILL TREADS
9. 2" X 12" X 3/8" TUBE STEEL BROKEN BACK STRINGER
10. 1 1/2" STAINLESS STEEL PIPE HANDRAIL
11. 1 1/2" METAL DECK WITH CONCRETE INFILL; TOTAL DEPTH 5"
12. RETURN HANDRAIL TO WALL

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

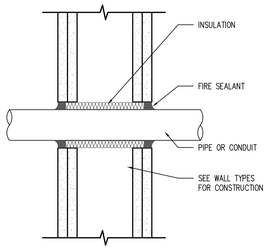
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

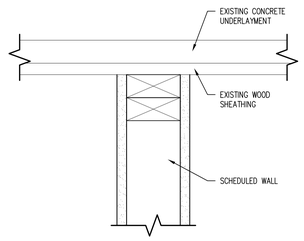
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

VERTICAL CIRCULATION

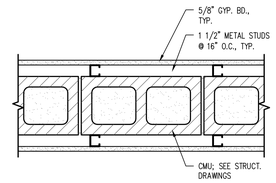
AE 451



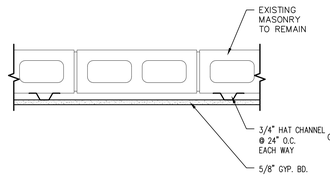
1-14.DWG D5 AE511 PIPE/ CONDUIT THROUGH WALL UL-WL1029
SCALE N.T.S.



C5 AE511 WALL HEAD @ DECK DETAIL
SCALE 3" = 1'-0"
1-15.DWG

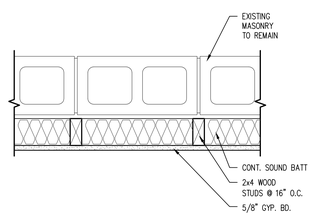


1-16.DWG D4 AE511 WALL TYPE - P
SCALE 1 1/2" = 1'-0"

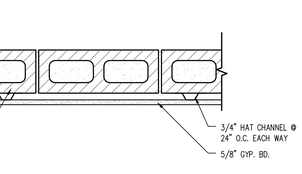


1-19.DWG C4 AE511 WALL TYPE - L
SCALE 1 1/2" = 1'-0"

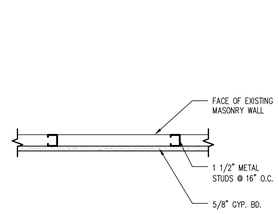
NOTE: INSTALL 1/2" CEMENTATION BACKER BOARD IN LIEU OF 5/8" GYP. DB. @ ALL SHOWER LOCATIONS



1-20.DWG E3 AE511 WALL TYPE - S
SCALE 1 1/2" = 1'-0"

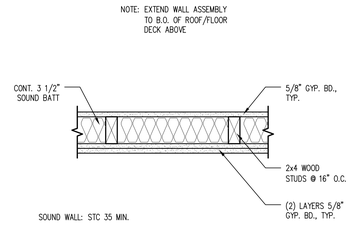


1-18.DWG D3 AE511 WALL TYPE - O
SCALE 1 1/2" = 1'-0"

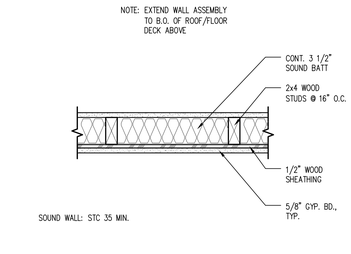


1-19.DWG C3 AE511 WALL TYPE - K
SCALE 1 1/2" = 1'-0"

NOTE: INSTALL 1/2" CEMENTATION BACKER BOARD IN LIEU OF 5/8" GYP. DB. @ ALL SHOWER LOCATIONS



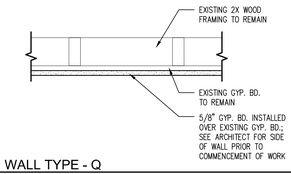
1-20.DWG E2 AE511 WALL TYPE - R
SCALE 1 1/2" = 1'-0"



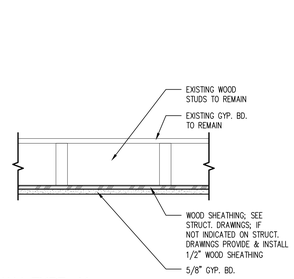
1-17.DWG D2 AE511 WALL TYPE - N
SCALE 1 1/2" = 1'-0"

NOT USED

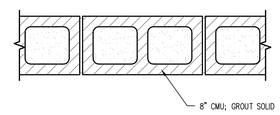
1-09.DWG C2 AE511 WALL TYPE - J (NOT USED)
SCALE 1 1/2" = 1'-0"



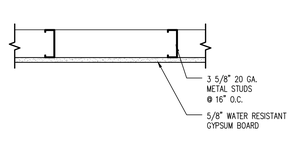
1-20.DWG E1 AE511 WALL TYPE - Q
SCALE 1 1/2" = 1'-0"



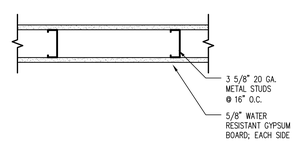
1-17.DWG D1 AE511 WALL TYPE - M
SCALE 1 1/2" = 1'-0"



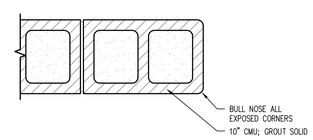
1-11.DWG C1 AE511 WALL TYPE - I
SCALE 1 1/2" = 1'-0"



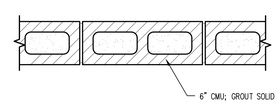
1-08.DWG B4 AE511 WALL TYPE - H
SCALE 1 1/2" = 1'-0"



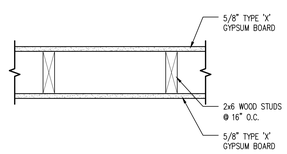
1-07.DWG B3 AE511 WALL TYPE - G
SCALE 1 1/2" = 1'-0"



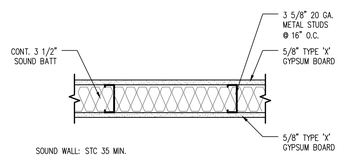
1-06.DWG B2 AE511 WALL TYPE - F
SCALE 1 1/2" = 1'-0"



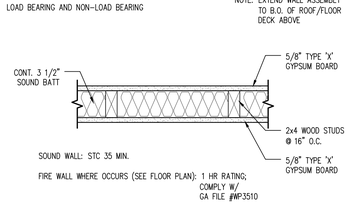
1-05.DWG B1 AE511 WALL TYPE - E
SCALE 1 1/2" = 1'-0"



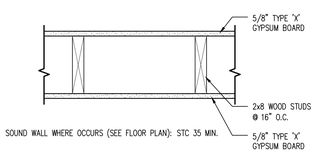
1-03.DWG A4 AE511 WALL TYPE - D
SCALE 1 1/2" = 1'-0"



1-02.DWG A3 AE511 WALL TYPE - C
SCALE 1 1/2" = 1'-0"



1-01.DWG A2 AE511 WALL TYPE - B
SCALE 1 1/2" = 1'-0"



1-01.DWG A1 AE511 WALL TYPE - A
SCALE 1 1/2" = 1'-0"

GENERAL NOTES:

1. EXTEND WALL ASSEMBLIES TO 4" ABOVE SCHEDULED CEILING, U.N.O.

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

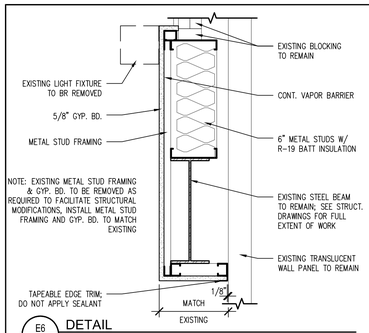
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

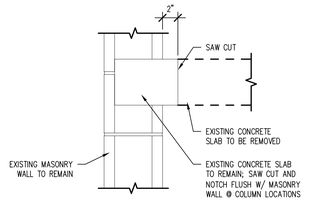
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

WALL TYPES

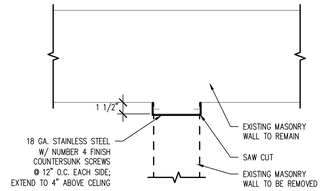
AE 511



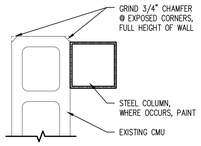
E6 AE521 DETAIL
SCALE 1 1/2" = 1'-0"
4-16.dwg



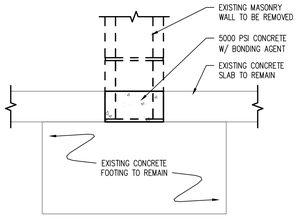
E5 AE521 WALL DETAIL
SCALE 1 1/2" = 1'-0"
4-21.DWG



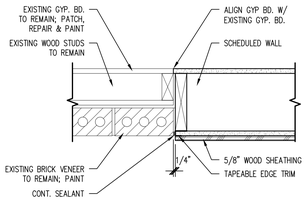
E4 AE521 WALL DETAIL
SCALE 1 1/2" = 1'-0"
4-20.DWG



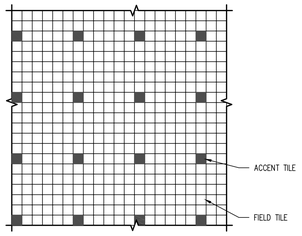
E3 AE521 CMU DETAIL
SCALE 1 1/2" = 1'-0"
4-02.dwg



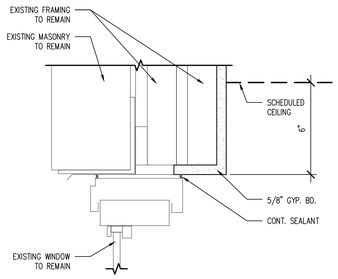
E2 AE521 CONCRETE INFILL
SCALE 1 1/2" = 1'-0"
4-19.DWG



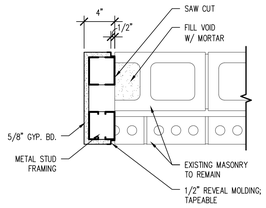
E1 AE521 INTERIOR WALL DETAIL
SCALE 1 1/2" = 1'-0"
4-01.dwg



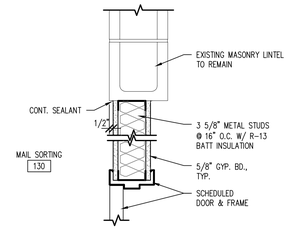
D6 AE521 TYPICAL FLOOR PATTERN
SCALE 1" = 1'-0"
2-16.dwg



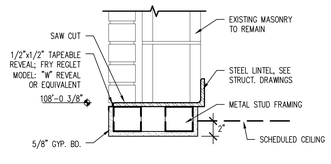
D4 AE521 WINDOW HEAD DETAIL
SCALE 3" = 1'-0"
2-19.DWG



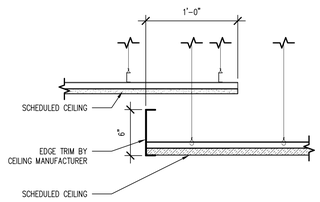
D3 AE521 WALL DETAIL
SCALE 1 1/2" = 1'-0"
2-18.DWG



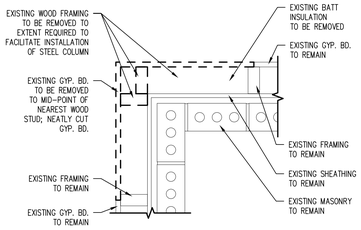
D2 AE521 INTERIOR DETAIL
SCALE 1 1/2" = 1'-0"
2-17.DWG



D1 AE521 SOFFIT DETAIL
SCALE 1 1/2" = 1'-0"
2-17.DWG

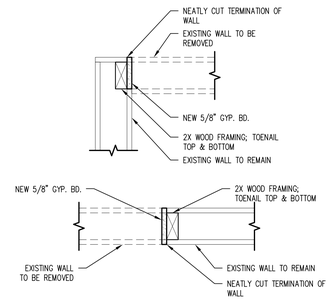


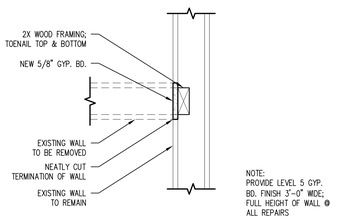
C6 AE521 CEILING DETAIL
SCALE 1 1/2" = 1'-0"
2-15.dwg



EXISTING CONDITION

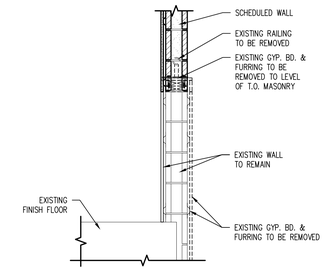
C4 AE521 WALL DETAIL
SCALE 1 1/2" = 1'-0"
2-14.DWG



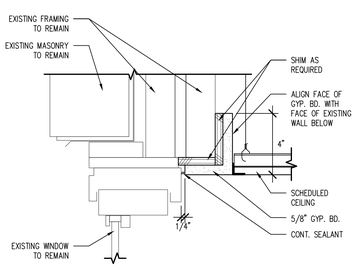


NOTE:
PROVIDE LEVEL 5 GYP. BD. FINISH 3'-0" WIDE; FULL HEIGHT OF WALL @ ALL REPAIRS

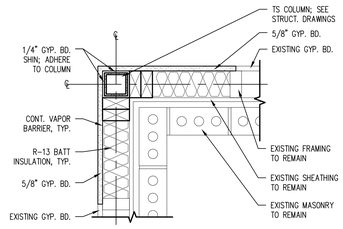
C3 AE521 EXISTING WALL DETAIL
SCALE 1 1/2" = 1'-0"
4-03.DWG



C1 AE521 WALL DETAIL
SCALE 3/4" = 1'-0"
4-04.dwg

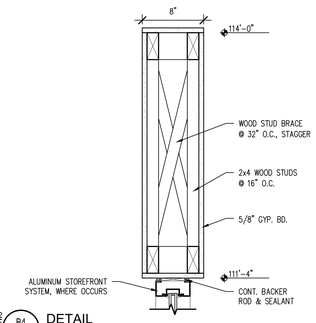


B6 AE521 WINDOW HEAD DETAIL
SCALE 3" = 1'-0"
2-13.DWG

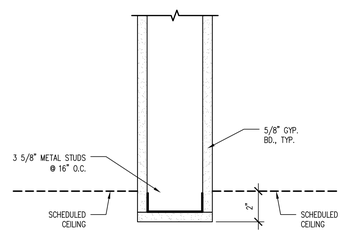


MODIFIED CONDITION

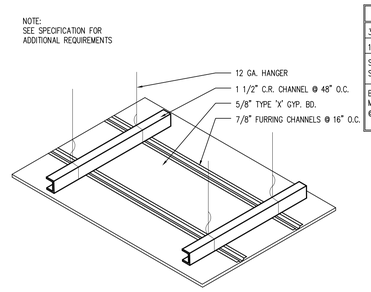
B5 AE521 DETAIL @ STEEL COLUMN
SCALE N.T.S.
2-17.dwg



B4 AE521 DETAIL
SCALE 1 1/2" = 1'-0"
2-18.DWG

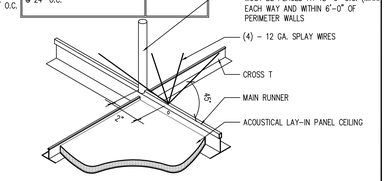


B3 AE521 CEILING TRANSITION DETAIL
SCALE 3" = 1'-0"
2-18.DWG

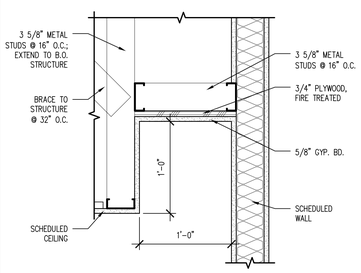


B2 AE521 SUSPENDED GYP. BD. CEILING SYSTEM
SCALE N.T.S.
2-18.DWG

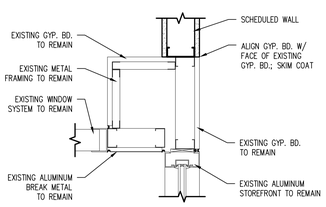
STRUT SIZE	MAXIMUM LENGTH
3/4" DIAMETER CONDUIT (EMT)	8'-6"
1" DIAMETER CONDUIT (EMT)	10'-0"
SINGLE 2 1/2" X 20 GA. METAL STUD (Imin = 0.18 in4)	11'-6"
BACK TO BACK 2 1/2" X 20 GA. METAL STUDS SCREWED TOGETHER @ 24" O.C.	15'-0"



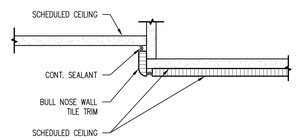
B1 AE521 TYPICAL COMPRESSION STRUT
SCALE N.T.S.
2-18.DWG



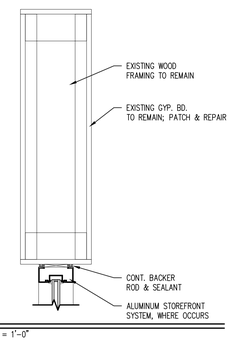
A6 AE521 PROJECTION SCREEN RECESS DETAIL
SCALE 1 1/2" = 1'-0"
2-14.DWG



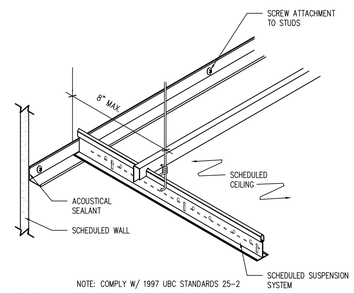
A5 AE521 DETAIL
SCALE 1 1/2" = 1'-0"
2-09.DWG



A4 AE521 CEILING DETAIL
SCALE 3" = 1'-0"
2-09.DWG

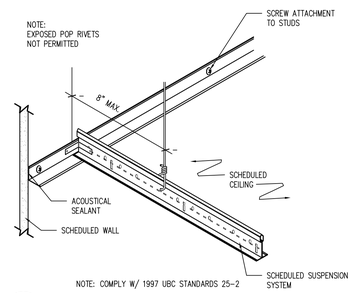


A3 AE521 DETAIL
SCALE 1 1/2" = 1'-0"
2-09.DWG



NOTE: COMPLY W/ 1997 UBC STANDARDS 25-2

A2 AE521 UNRESTRAINED EDGE DETAIL @ ACOUSTICAL LAY-IN CEILING
SCALE N.T.S.
2-09.DWG



NOTE: COMPLY W/ 1997 UBC STANDARDS 25-2

A1 AE521 RESTRAINED EDGE DETAIL @ ACOUSTICAL LAY-IN CEILING
SCALE N.T.S.
2-09.DWG

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

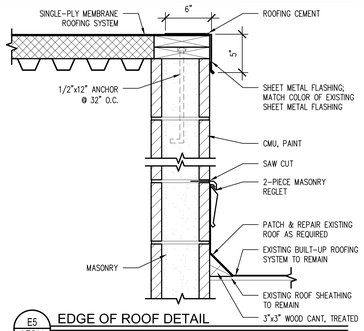
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

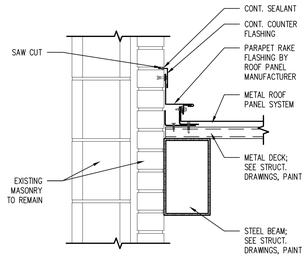
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

INTERIOR DETAILS

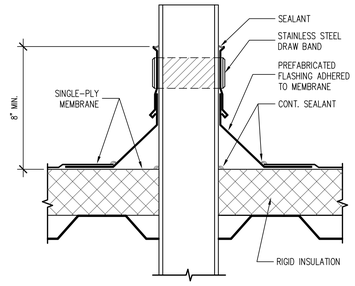
AE 521



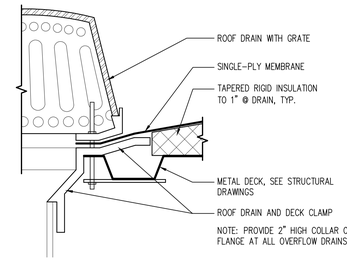
E5 / AE541 EDGE OF ROOF DETAIL
SCALE 1 1/2" = 1'-0"
4-15.dwg



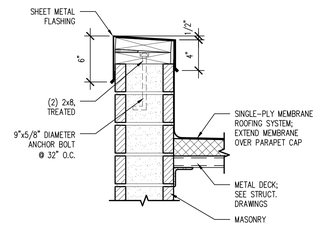
E4 / AE541 RAKE DETAIL
SCALE 1 1/2" = 1'-0"
4-12.dwg



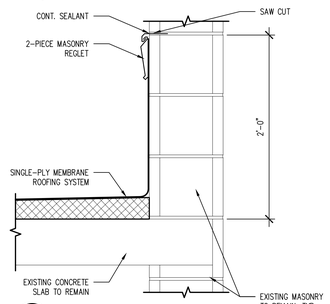
E3 / AE541 ROOF VENT PENETRATION DETAIL
SCALE 3" = 1'-0"
4-06.DWG



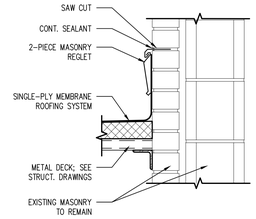
E2 / AE541 ROOF / OVERFLOW DRAIN DETAIL
SCALE 3" = 1'-0"
4-05.DWG



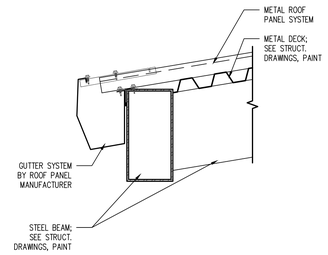
E1 / AE541 PARAPET FLASHING DETAIL
SCALE 1 1/2" = 1'-0"
4-09.dwg



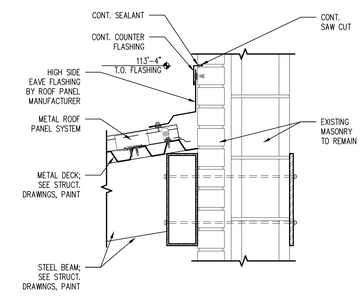
D5 / AE541 EDGE OF ROOF DETAIL
SCALE 1 1/2" = 1'-0"
4-14.dwg



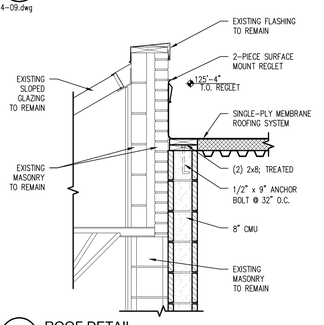
D4 / AE541 EDGE OF ROOF DETAIL
SCALE 1 1/2" = 1'-0"
4-10.dwg



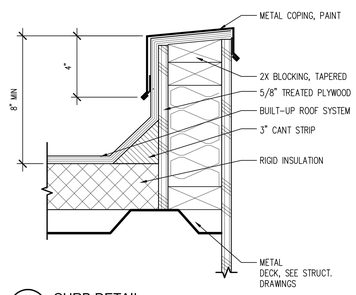
D3 / AE541 LOW EAVE DETAIL
SCALE 1 1/2" = 1'-0"
4-13.dwg



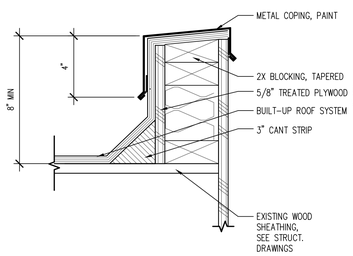
D2 / AE541 HIGH SIDE EAVE DETAIL
SCALE 1 1/2" = 1'-0"
4-11.dwg

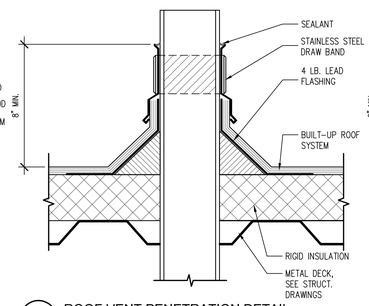


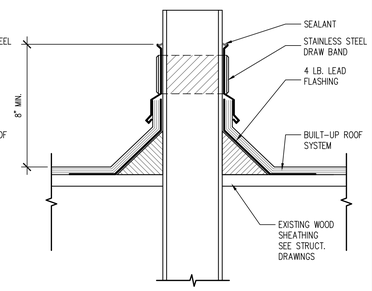
D1 / AE541 ROOF DETAIL
SCALE 3/4" = 1'-0"
4-07.dwg



C4 / AE541 CURB DETAIL
SCALE 3" = 1'-0"
4-18.DWG







C2 / AE541 ROOF VENT PENETRATION DETAIL
SCALE 3" = 1'-0"
4-17.DWG

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

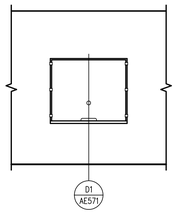
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

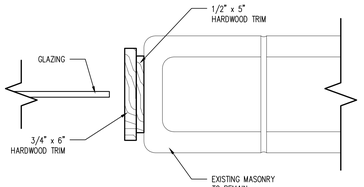
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

BUILDING DETAILS

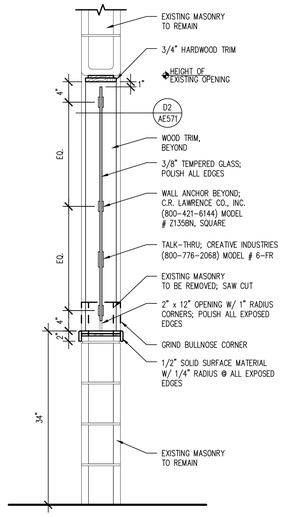
AE 541



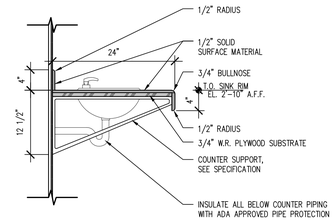
E2 AE571 INTERIOR ELEVATION
SCALE 1/4" = 1'-0"
E-14.dwg



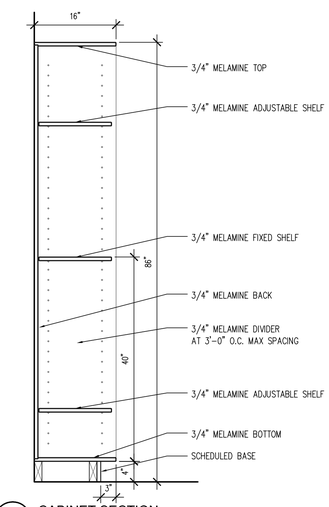
D2 AE571 JAMB DETAIL
SCALE 3" = 1'-0"
9-11.DWG



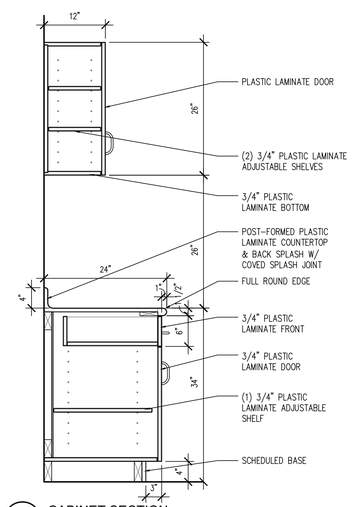
D1 AE571 COUNTER SECTION
SCALE 1" = 1'-0"
7-01.DWG



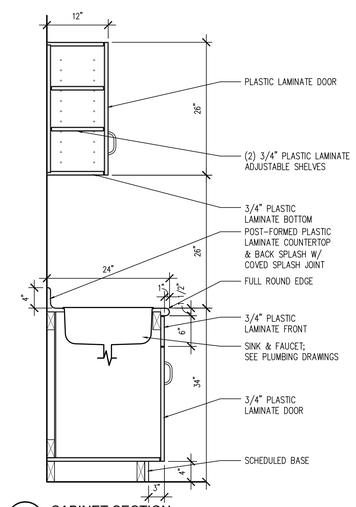
C1 AE571 LAVATORY SECTION
SCALE 1" = 1'-0"
7-07.DWG



A3 AE571 CABINET SECTION
SCALE 1" = 1'-0"
7-02.DWG



A2 AE571 CABINET SECTION
SCALE 1" = 1'-0"
7-04.DWG



A1 AE571 CABINET SECTION
SCALE 1" = 1'-0"
7-03.DWG

CONSTRUCTION DOCUMENTS

STATE MAIL
SERVICES

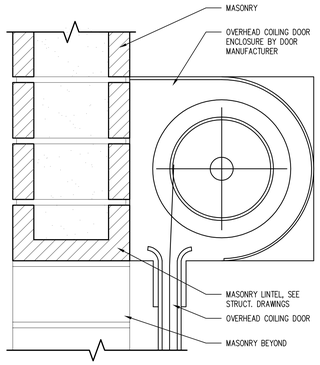
TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

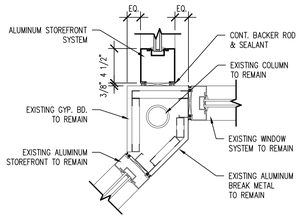
DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

CASEWORK
DETAILS

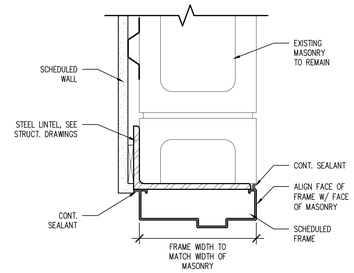
AE
571



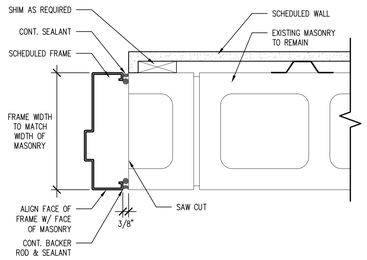
D6 / AE601 O.H. DOOR HEAD DETAIL
SCALE 3" = 1'-0"
9-11.DWG



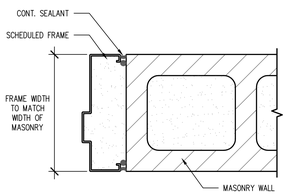
D5 / AE601 JAMB DETAIL
SCALE 1 1/2" = 1'-0"
9-07.DWG



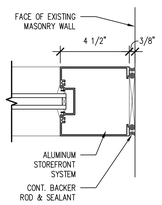
E4 / AE601 HEAD DETAIL
SCALE N.T.S.
9-06.DWG



D4 / AE601 JAMB DETAIL
SCALE N.T.S.
9-05.DWG

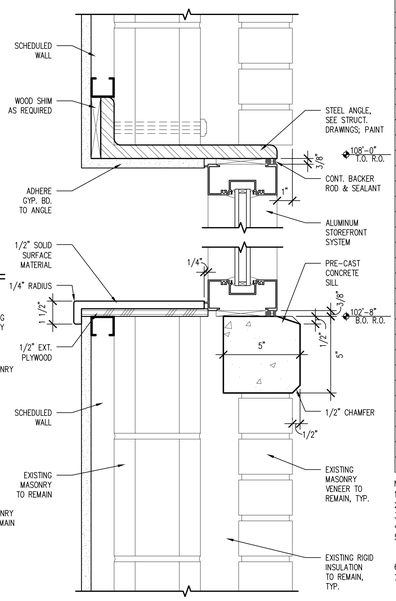


C6 / AE601 JAMB DETAIL (HEAD SIM.)
SCALE 1" = 1'-0"
9-08.DWG

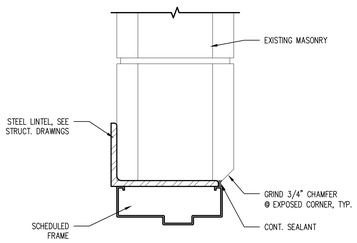


C5 / AE601 JAMB DETAIL
SCALE 3" = 1'-0"
9-04.DWG

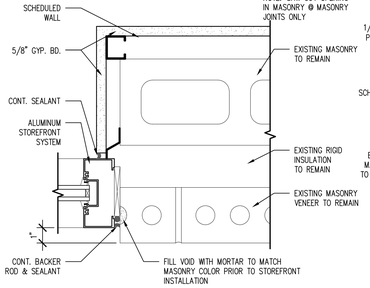
NOTE: SAW CUT OPENING IN MASONRY @ MASONRY JOINTS ONLY



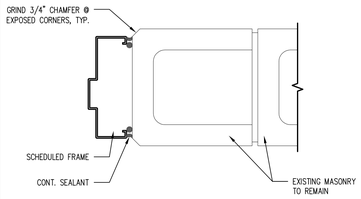
B4 / AE601 HEAD/SILL DETAIL
SCALE 3" = 1'-0"
9-03.DWG



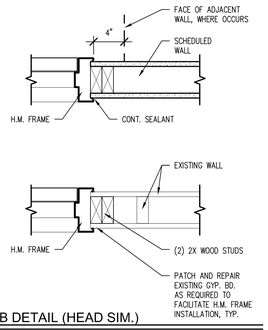
B6 / AE601 HEAD DETAIL
SCALE N.T.S.
9-09.DWG



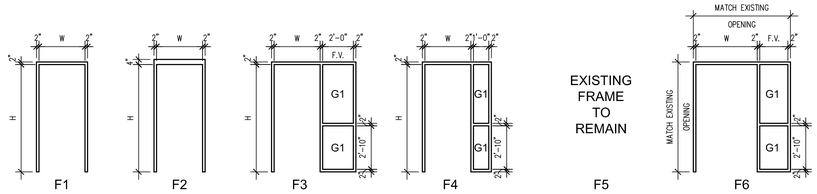
B5 / AE601 JAMB DETAIL
SCALE 3" = 1'-0"
9-01.DWG



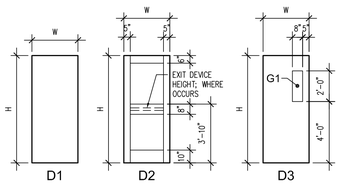
A6 / AE601 JAMB DETAIL
SCALE N.T.S.
9-10.DWG



A5 / AE601 JAMB DETAIL (HEAD SIM.)
SCALE N.T.S.
9-02.DWG



A4 / AE601 FRAME TYPES
SCALE 1/4" = 1'-0"
1-10.DWG



A1 / AE601 DOOR TYPES
SCALE 1/4" = 1'-0"
1-10.DWG

DOOR AND FRAME SCHEDULE

DOOR	DOOR SIZE WxH	DOOR TYPE	DOOR MATL	DOOR FINISH	DOOR GLAZING	FRAME TYPE	FRAME MATL	FRAME FINISH	DETAIL AE601 U.N.O. HEAD	JAMB	THRSH	FIRE RATING	NOTES
101A	EXISTING	--	--	--	--	--	--	--	--	--	--	--	2
101B	EXISTING	--	--	--	--	--	--	--	--	--	--	--	2
102A	4'-0" x 7'-2"	D2	AL	--	G1	--	AL	--	A3/AE521	C5 & D5	--	--	6
102B	4'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	--
103A	4'-0" x 7'-2"	D2	AL	--	G1	--	AL	--	B4/AE521	C5	--	--	6
104A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
105A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
106A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
107A	3'-0" x 7'-0"	D1	WD	--	--	F3	HM	PAINT	A5	A5	--	--	--
108A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
108B	3'-0" x 7'-0"	D1	WD	--	--	F3	HM	PAINT	E4	D4	--	--	--
109A	EXISTING	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
110A	3'-0" x 7'-0"	D1	WD	--	--	F3	HM	PAINT	E4	D4	--	--	--
111A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
113A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
114A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
114B	3'-0" x 7'-0"	D1	WD	--	--	F2	HM	PAINT	B6	E6	--	--	--
115A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
115B	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
116A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
116B	MATCH EXISTING SIZE	D1	WD	--	--	F1	HM	PAINT	--	--	--	--	--
117A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
117B	MATCH EXISTING SIZE	D1	WD	--	--	F1	HM	PAINT	--	--	--	--	--
124A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
125A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
125B	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
126A	MATCH EXISTING SIZE	D1	WD	--	--	F5	--	PAINT	E5	E5	--	--	5
126B	10'-0" x 10'-0"	--	--	--	--	--	--	PAINT	D6	--	--	45 MIN.	7
127A	4'-0" x F.V.	D1	HM	--	--	F6	HM	PAINT	--	--	--	--	--
130A	MATCH EXISTING SIZE	D3	WD	--	--	F5	HM	PAINT	--	--	--	--	5
130B	MATCH EXISTING SIZE	D3	WD	--	--	F5	HM	PAINT	E5	E5	--	--	5
130C	3'-0" x 7'-0"	D1	HM	PAINT	--	F2	HM	PAINT	--	--	--	--	--
130D	8'-0" x 10'-0"	--	--	--	--	--	--	PAINT	D6	--	--	45 MIN.	7
133A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	45 MIN.	--
134A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	--
135A	8'-0" x 10'-0"	--	--	--	--	--	--	PAINT	--	--	--	--	4
135B	8'-0" x 10'-0"	--	--	--	--	--	--	PAINT	D6	--	--	--	3
135C	8'-0" x 10'-0"	--	--	--	--	--	--	PAINT	D6	--	--	--	3
135D	4'-0" x 7'-0"	D1	HM	PAINT	--	F1	HM	PAINT	C6	C6	--	--	--
136A	4'-0" x 7'-0"	D1	HM	PAINT	--	F1	HM	PAINT	A5	A5	--	--	--
136B	3'-0" x 7'-0"	D1	HM	PAINT	--	F2	HM	PAINT	--	--	--	--	--
137A	4'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	--
138A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
139A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
140A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
141A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
142A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
143A	4'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
144A	EXISTING	--	--	--	--	--	--	--	--	--	--	--	2
145A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
202A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
204A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
205A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
206A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
207A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
208A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
210A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
211A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
212A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
213A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	--
215A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	--
216A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
217A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	--
218A	3'-0" x 7'-0"	D1	WD	--	--	--	AL	--	A5	A5	--	--	--
218B	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
219A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
220A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
221A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
222A	3'-0" x 7'-0"	D1	WD	--	--	F4	HM	PAINT	A5	A5	--	--	1
223A	3'-0" x 7'-0"	D1	WD	--	--	F1	HM	PAINT	A5	A5	--	--	1
230A	3'-8" x 7'-0"	D1	HM	PAINT	--	F2	HM	PAINT	D2/AE521	A6	--	--	--
230B	MATCH EXISTING SIZE	D1	HM	PAINT	--	F2	HM	PAINT	E5	E5	--	--	5
230C	MATCH EXISTING SIZE	D1	HM	PAINT	--	F2	HM	PAINT	E5	E5	--	--	5

NOTES:
1) KNOCK-DOWN FRAME
2) EXISTING DOOR & FRAME TO REMAIN
3) O.H. COILING DOOR
4) HIGH SPEED ROLLING DOOR
5) EXISTING FRAME TO REMAIN; PATCH & REPAIR FRAME; PREP FRAME FOR SCHEDULED DOOR & HARDWARE
6) ALUMINUM STOREFRONT SYSTEM
7) O.H. COILING FIRE DOOR

ROOM FINISH SCHEDULE

ROOM NO	ROOM NAME	FLOOR	BASE	WALLS N	E	S	W	NOTES
001	STAIR	F1	B1	W1	W1	W1	W1	--
002	STAIR	F1	B1	W1	W1	W1	W1	2
003	ELEVATOR	F1	B4	--	--	--	--	--
101	VESTIBULE	F6	B1	W1	W1	W1	W1	--
102	CORRIDOR	F2	B1	W1	W1	W1	W1	--
103	WAITING	F2	B1	W1	W1	W1	W1	--
104	RECEPTION	F1	B1	W1	W1	W1	W1	--
105	OFFICE	F1	B1	W1	W1	W1	W1	--
106	OFFICE	F1	B1	W1	W1	W1	W1	--
107	OFFICE	F1	B1	W1	W1	W1	W1	--
108	CONFERENCE	F1	B3	W1	W1	W1	W1	--
109	JANITOR	F2	B1	W1	W1	W1	W1	--
110	OPEN OFFICE	F1	B1	W1	W1	W1	W1	--
111	FILES	F1	B1	W1	W1	W1	W1	--
112	CORRIDOR	F2	B1	W1	W1	W1	W1	--
113	ELECTRICAL	F8	B4	W1	W1	W1	W1	--
114	SERVER / COMM.	F8	B4	W1	W1	W1	W1	--
115	BREAK	F2	B1	W1	W1	W1	W1	--
116	MEN	F5	B2	W2	W2	W2	W2	--
117	WOMEN	F5	B2	W2	W2	W2	W2	--
119	VESTIBULE	F2	B1	W1	W1	W1	W1	--
122	CORRIDOR	F2	B1	W1	W1	W1	W1	--
123	PRINTING	F2	B1	W1	W1	W1	W1	--
124	MECHANICAL	F8	B1	W1	W1	W1	W1	--
125	MAIL STORAGE	F4	B1	W1	W1	W1	W1	1
126	MAIL STORAGE	F4	B1	W1	W1	W1	W1	--
127	CORRIDOR	F2	B1	W1	W1	W1	W1	--
128	PRINTING	F2	B1	W1	W1	W1	W1	--
130	MAIL SORTING	F4	B1	W1	W1	W1	W1	--
131	MAIL SORTING	F2	B1	W1	W1	W1	W1	--
133	ELEVATOR EQUIPMENT	F2	B1	W1	W1	W1	W1	--
134	EQUIPMENT ROOM	F2	B1	W1	W1	W1	W1	--
135	RECEIVING	F4	B1	W1	W1	W1	W1	--
136	CORRIDOR	F2	B1	W1	W1	W1	W1	--
137	STORAGE	F2	B1	W1	W1	W1	W1	--
138	OFFICE	F1	B1	W1	W1	W1	W1	--
139	OFFICE	F1	B1	W1	W1	W1	W1	--
140	OFFICE	F1	B1	W1	W1	W1	W1	--
141	OFFICE	F1	B1	W1	W1	W1	W1	--
142	UNISEX RESTROOM	F3	B2	W2	W2	W2	W2	--
143	OPEN OFFICE	F1	B1	W1	W1	W1	W1	--
144	VESTIBULE	F6/F1	B1	W1	W1	W1	W1	--
145	STOR.	F1	B1	W1	W1	W1	W1	--
201	OPEN OFFICE	F1	B1	W1	W1	W1	W1	--
202	STORAGE	F1	B1	W1	W1	W1	W1	--
203	COPY	F1	B1	W1	W1	W1	W1	--
204	OFFICE	F1	B1	W1	W1	W1	W1	--
205	OFFICE	F1	B1	W1	W1	W1	W1	--
206	OFFICE	F1	B1	W1	W1	W1	W1	--
207	OFFICE	F1	B1	W1	W1	W1	W1	--
208	OFFICE	F1	B1	W1	W1	W1	W1	--
209	HALL	F1	B1	W1	W1	W1	W1	--
210	BREAK ROOM	F2	B1	W1	W1	W1	W1	--
211	CONFERENCE	F1	B1	W1	W1	W1	W1	--
212	OFFICE	F1	B1	W1	W1	W1	W1	--
213	MEN	F3	B2	W2	W2	W2	W2	--
214	HALL	F1	B1	W1	W1	W1	W1	--
215	WOMEN	F3	B2	W2	W2	W2	W2	--
216	BREAK ROOM	F2	B1	W1	W1	W1	W1	--
217	JANITOR	F2	B1	W1	W1	W1	W1	--
218	CONFERENCE	F1	B3	W1	W1	W1	W1	--
219	WORK ROOM	F1	B1	W1	W1	W1	W1	--
220	OFFICE	F1	B1	W1	W1	W1	W1	--
221	OFFICE	F1	B1	W1	W1	W1	W1	--
222	OFFICE	F1	B1	W1	W1	W1	W1	--
223	STOR.	F1	B1	W1	W1	W1	W1	--
224	RECEPTION	F1	B1	W1	W1	W1	W1	--
225	HALL	F1	B1	W1	W1	W1	W1	--
230	MECHANICAL	F8	B4	W1	W1	W1	W1	--
231	MECHANICAL	F8	B4	W1	W1	W1	W1	--

NOTES:
1) REMOVE ALL EXISTING FLOOR ADHESIVE FROM EXISTING CONCRETE
2) CARPET AND NOSING TO BE INSTALLED OVER EXISTING WOOD RISER & TREAD; STOP CARPET AND NOSING 5 3/4" FROM EDGE OF EXISTING WOOD RISER & TREAD, BOTH SIDES; BIND EDGE OF CARPET, EXPOSED EXISTING WOOD RISER & TREAD TO BE REFINISHED

FINISH SCHEDULE

FLOOR FINISH

F1	CARPET
F2	QUARTZ TILE
F3	2" X 2" CERAMIC MOSAIC, SEAL GROUT; THINSET SEE D6/AE521 FOR TYP. TILE PATTERN
F4	SEALED CONCRETE
F5	2" X 2" CERAMIC MOSAIC, SEAL GROUT; 1 1/2" THICK MORTAR BED SEE D6/AE521 FOR TYP. TILE PATTERN
F6	ENTRY CARPET
F7	NOT USED
F8	EXISTING FLOOR FINISH TO REMAIN

BASE FINISH

B1	4" RUBBER BASE
B2	6" X 6" COVED WALL TILE BASE
B3	4" X 3/4" HARDWOOD BASE
B4	NO BASE

WALL FINISH

W1	PAINTED SURFACE
W2	6" X 6" CERAMIC WALL TILE; FULL HEIGHT OF WALL

GLAZING SCHEDULE

G1	1/4" CLEAR – TEMPERED
G2	1/4" CLEAR
G3	1" INSULATED – TEMPERED
G4	1" INSULATED

GENERAL NOTES:

1. H.M. DOORS & FRAMES TO BE PAINTED DIFFERENT COLOR THAN WALLS
2. SEE SPECIFICATION FOR DOOR HARDWARE SCHEDULE

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

TAYLORSVILLE, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 · 13 · 09	08008

SCHEDULES / DOOR & FRAME TYPES

AE 601

BASIS OF DESIGN

1. BUILDING CODE ..... 2006 IBC, and ASCE41-06
2. OCCUPANCY CATEGORY II
3. GRAVITY DESIGN: 2006 IBC
   DEAD LOADS:
   Roofs ..... 20 psf
   Floors ..... 50 psf
   Partitions ..... 20 psf
   LIVE LOADS:
   Roofs ..... 20 psf
   Floors ..... 50 psf
   Corridors ..... 80 psf
   SNOW LOADS:
   Snow load on ground, Pg ..... 42.8 psf
   Snow load on flat roof, Pf ..... 30 psf
   Exposure factor, Ce 1.0
   Importance factor, Is 1.0
   Thermal factor, Ct 1.0
4. WIND DESIGN:
   Basic wind speed ..... 90 mph
   Importance factor, Iw 1.0
   Exposure ..... B
   Internal pressure coefficient, GCpi ..... ±0.18
5. SEISMIC DESIGN: ASCE 41-06 (FEMA356)
   Building performance level, Collapse Prevention
   Mapped Spectral response accelerations:
   Ss & S1 ..... 1.52& 0.60
   Spectral response coefficients:
   Sxs & Sx1 ..... 1.017 & 0.599
5. SOILS:
   Soil bearing pressure 3000psf
   Minimum frost cover ..... 30 inches
6. ABBREVIATIONS:
   EOR = Engineer of record. See professional stamp this page.
   UNO = Unless noted otherwise
   (E) = Existing condition
   (N) = New construction

GENERAL

1. THE GENERAL CONTRACTOR SHALL:
   A. Be familiar with the contract documents and insure that subcontractors are familiar with their portion of the work. Submit a written request to the Arch/EOR for approval before proceeding with any changes.
   B. Verifies site conditions and dimensions at the site. If they differ from the contract documents, notify the Arch/EOR prior to fabrication/construction of affected elements. Existing condition information on the drawings is based on best knowledge acquired during the design phase and may differ from actual conditions. Affected details may require redesign.
   C. Report to the Arch/EOR modifications made to the structure.
   D. Be responsible for safety and protection on and around the job site and adjacent properties.
2. THE GENERAL CONTRACTOR SHALL COORDINATE:
   A. And verify locations, weights and sizes of mechanical units, equipment, etc. prior to the fabrication and erecting of structural supporting elements. Report sizes and locations that differ from those shown on the drawings to the Arch/EOR for review. Additional framing maybe required.
   B. Roof, floor, and wall openings required for mechanical, etc. which are not shown on the structural drawings with the Arch/EOR.
   C. Any structural situation not covered by the drawings with the Arch/EOR.
   D. Doors, windows, walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfers, kerfs, pads, landscape walls, trenches in slabs, etc. with the structural work.
   E. Inspections, testing, and structural observations as work proceeds. Notify the EOR 48 hours prior to any required structural observations.
3. CONTRACT DOCUMENTS & DRAWINGS:
   A. These structural notes complement the specifications and the drawings.
   B. Specific details, sections and notes shown on the drawings govern over these general notes and typical details.
   C. Contract documents take precedence over shop drawings, UNO.
   D. Apply typical or similar details, sections and notes to similar situations on the drawings where specific details are not referenced.
   E. Drawings and details have been prepared to visually represent information provided in scaled form. However, DO NOT scale plans or details for dimensional information.
   F. Refer to architectural drawings for dimensions.
4. BUILDING CODE COMPLIANCE: Construction, inspection, materials, testing, and workmanship shall conform to the requirements of the governing building code.
5. CONSTRUCTION SEQUENCE, SHORING, AND BRACING REQUIREMENTS: The general contractor is responsible for the method, means, and sequence of structural erection, UNO. He shall provide adequate temporary shoring or bracing for all structural elements until the entire structural system is completed. Design of shoring and bracing is by others at no additional cost to the owner.
6. OMISSIONS, CONFLICTS & DISCREPANCIES:
   A. Bring omissions, conflicts or discrepancies between the elements of the contract documents to the attention of the Arch/EOR before proceeding with work involved.
   B. In case of conflicts or discrepancies, follow the most stringent requirements as directed by the Arch/EOR.
7. MISCELLANEOUS:
   A. During and after construction, builder and/owner shall keep loads on the structure within the limits of this design. See Basis of Design.
   B. Site observations by WCA's field representative shall neither be construed as inspection nor approval of construction.
   C. The elevator manufacturer shall supply all elevator machinery support beams, guide rails, supports, etc. Submit shop drawings that identify elevator loads imposed onto the structure. Additional framing may be required to support these loads.
8. SUBMITTALS:
   A. Make submittals in a timely manner. WCA's review is for general compliance only and is not intended as approval. Contractor is responsible for verifying sizes, dimensions and elevations on submittals as related to the contract documents.
   B. Submit the following items for review prior to proceeding with the work:

      Concrete material Certifications & mix designs.
      Masonry material Certifications, grout & mortar designs.
      Shop Drawings: Reinforcing steel
      Steel deck
      Structural steel
      Welding procedures and certifications.
      Veneer ties and anchors.
      * stamped by a professional engineer currently registered in the state of the project.

   C. Allow two weeks for the review of submittals by the EOR.
   D. Have EOR approved shop drawings & materials on site before construction of those components begins.
   E. Substitutions are not allowed unless approved by the EOR. Submit requests for structural substitutions to the Arch/EOR.

SPECIAL INSPECTION AND TESTING

1. INSPECTIONS: Provide special inspection by an independent agency in accordance with IBC Chapter 17 and as outlined below: Inspections shall be periodic unless noted continues below.

   Anchor bolts and concrete & masonry embedments.
   Concrete: during pours, rebar placement, and taking of test specimens (continious), Inspectors shall be ACI-II or ICC certified.
   Masonry: during placement, grouting (continious), reinforcing, and taking of specimens (continious). Inspectors shall be ICC certified.
   Reinforcing steel: in concrete and masonry.
   Soils: bearing materials and placement of structural fill.
   Steel Deck:
   Steel to steel bolting: all high strength bolts.
   Welding: all field welds. Inspector shall be AWS-QC1 certified.
   Drill and epoxy anchors

   1

2. TESTING: The owner will provide testing by qualified testing personnel for the following types of construction:

   Bolting: installation and correct torque and/or tension.
   Concrete: strength, slump, air, and temperature.
   Masonry: strength of mortar, grout, block, and prisms.
   Soils: compaction.
   Welding: type, size, length, and quality of shop and all field welds by approved methods. Ultrasonically test complete penetration welds.

3. THE CONTRACTOR SHALL:

   A. Coordinate testing. DO NOT proceed with subsequent work until inspections and testing has been approved.
   B. Copy inspection reports/testing results to the Arch/EOR and owner before work proceeds.
   C. Correct deficient work at no additional cost to the owner.

FOUNDATIONS

1. SOILS REPORT:
   A. Foundations and retaining wall systems have been designed following the design criteria from the orinal constrution documents. Which reference a soils report.
   B. WCA should be provided with a copy of the report to verify the design assumptions are correct. If a soils report can not be located. WCA recomeds obtaining a new report.

   C. Obtain a copy from the architect. This design assumes the recommendations contained in this report are being followed.
   D. If soil conditions vary from the report or if the report has been amended, etc., the contractor shall immediately inform the EOR. Foundations as shown on the drawings may require revision.
2. Soil preparation under footings and slabs-on-grade shall be in accordance with the soils report.
3. The general contractor is responsible for soil excavation, back fill and support of adjacent properties during earthwork.
4. All walls (except cantilevered retaining walls) shall be adequately brace against lateral movement prior to backfilling. Design and erection of bracing/shoring is the general contractor's responsibility. Bracing shall remain in place until supporting structural elements are in place and have attained full strength. If walls are not braced, DO NOT backfill until suspended floor is in place and concrete has attained full strength.

REINFORCING STEEL

1. CODES AND STANDARDS. Comply with:
   A. CRSI "Manual of Standard Practice".
   B. ACI "Detailing Manual", ACI 315 (or SP-66).
2. MATERIALS:
   A. New stock deformed rebar: ASTM A615, Grade 60, except as noted.
      a. Field bent dowels: ASTM A615, Grade 40 or ASTM A706, Grade 60, Low-Alloy Steel. Reduce spacing of grade 40 dowels by 1/3.
      b. Welded rebar: ASTM A706, Grade 60, Low-Alloy Steel.
      c. Deformed bar anchors (DBA's): See materials under section 'Structural Steel'
   B. Masonry joint wire: ASTM A82.
   C. Use mechanical splice couplers capable of developing 125% of the specified bar strength.
3. CONSTRUCTION:

CONCRETE

1. CODES AND STANDARDS. Comply with the following Codes:
   A. ACI 301, "Specifications for Structural Concrete for Buildings".
   B. ACI 318, "Building Code Requirements for Reinforced Concrete".
   C. ACI 347, "Recommended Practice for Concrete Form Work".
2. MATERIALS shall conform to the following:
   A. Cement: ASTM C150, Type I, Portland Cement.
   B. Hard rock aggregates: ASTM C33
      Lightweight aggregates: ASTM C330
   C. Water shall be potable.
   D. Air entrainment: ASTM C260
   E. Fly ash: ASTM C618
   F. Calcium chloride SHALL NOT be used.
3. MIX DESIGNS:
   A. Place only one type of concrete at any given time.
   B. The maximum slump shall be 4" w/o plasticizer added.
   C. Use pea gravel and/or plasticizer in congested areas.
   D. Limit fly ash to 20% of the total cement.
   E. Concrete mixes shall conform to the following:

TYPE OF CONCRETE MEMBER	28 DAY STRENGTH (psi)	MAX. W/C (ratio)	MAX. DRY WEIGHT (pcf)	MAX. AGGREGATE SIZE (inches)	AIR (%)	MIN. CEMENT PER YD. (lbs)
Footings:	3000	0.50	150	3/4	3 ±1	517
Foundation walls and grade beams:	3000	0.50	150	3/4	3 ±1	517
Slabs on grade:						
Interior	3000	0.50	150	1,5*	0 to 2	517
Exterior	4000	0.47	150	1,5*	6 ±1	564
Columns:	4000	0.45	150	3/4	3 ±1	564

   *Well-graded Aggregates required (1,5"=> course >3/8", medium, and fines <#8) Follow ACI 302 for sand gradation.

   **Lt, Wt, Concrete shall have a min. splitting tensile strength of 450 psi.

4. CONSTRUCTION:
   A. Mechanically vibrate concrete during placement.
   B. Prior to placing concrete, check with trades to insure proper placement of openings, block outs, sleeves, curbs, conduits, bolts, inserts, embeds, dowels, etc. Place anchor bolts and dowels prior to casting concrete, UNO.
   C. Form construction joints and bulkheads with a key way. Intentionally roughen contact surfaces (new or existing) at construction joints prior to casting adjacent pours, UNO.
   D. Add additional reinforcing too sides of floor and wall opening, equivalent to the bars cut by the opening with half to each side of the opening or (2) #5 bars, whichever is greater, UNO. Bars parallel to the principal reinforcing shall run full length of the span. End bars in the other direction with a standard hook. Add (2) #5 x 5'-0" diagonal bars at every corner.
   E. DO NOT allow penetrations through any beam, joist, column, pier, footing, or jamb without the EOR's approval. Otherwise, re-rout the penetration.
5. FOOTINGS:
   A. Bear footings on properly prepared materials.
   B. Center footings on the wall or column above, UNO.
   C. Bear exterior footings below the effects of frost. See Basis of Design.
   D. Provide 2x4 bevelled key in continuous wall footings.
   E. Stagger footing construction joints from wall construction joints above by at least 6 feet.
   F. Provide corner bars in continuous footings at corners and intersections.
   G. Add (2) #6 or (3) #5 lengthwise top bars in addition to footing schedule reinforcement at continuous footings without concrete foundation walls directly above (door openings, etc.).
   H. DO NOT allow penetrations through any concrete footing. At utilities, step the footing down below the conflict and add a concrete wall, pier or column that extends to the footing. Consult with the EOR.
   I. Backfill bearing surfaces that are undermined during construction with a lean concrete mix (1000 psi min.).
6. SLABS ON GRADE (SOG):
   A. Minimum Interior slabs on grade requirements:
      4 inches thickness.
      4 inch layer of free-draining gravel base.
      #4 bars at 24" o.c. both ways, UNO. Chair rebar for proper placement.
   B. Place large areas of interior slabs-on-grade in strips not to exceed 120 feet in length nor 20 feet in width. Subdivide by construction or contraction (control) joints into roughly squares whose sides DO NOT exceed 10 feet in either direction.
   C. See Architectural for exterior slabs on grade, UNO.
7. WALLS:
   A. Place vertical reinforcing in the center of walls (UNO) unless each face (E.F.) is specified. When each face is specified, splice the horizontal reinforcing of each curtain at different locations.
   B. Dowel vertical reinforcing to the structure below and above with the same bar size and spacing, UNO.
   C. Terminate horizontal reinforcing at the ends of walls or openings with a standard hook or corner type bars. Provide corner bars of the size and spacing as the horizontal reinforcing at intersections and corners.
   D. Build penetrations into the wall before pouring concrete. Have the penetrations reviewed by the EOR prior to installation unless detailed on the plans.
   E. Provide drains at the base of retaining and basement walls.
   F. Concrete walls not specially noted on the plans shall be reinforced as follows:

WALL THICKNESS (Grade 60)	VERTICAL REINFORCING (Gf 0.0012)	HORIZONTAL REINFORCING (Gf 0.0020)	REINFORCING HORZ. TOP & BOT.
8"	#4 @ 18" o.c.	#4 @ 12" o.c.	(2) #5

   See plans, schedules, and details for other reinforcing.

8. COLUMNS:
   A. Splice vertical reinforcing a minimum length of 40 bar diameters. Splices shall occur at floor levels, UNO.
   B. Space lateral ties in columns at 1/2 the regular spacing but not more than 6 inches on center at the top and bottom of the column for a distance of 1/6 the clear column height, the minimum column plan dimension, or 18 inches, whichever is greater.
   C. At column cross-sectional changes, offset longitudinal bars at floor levels. Slope the inclined bars, at the offset, no more than 1 in 6. Provide lateral ties one foot below, above and thru the offset at 3" o.c., UNO.

EPOXY

1

1. Epoxy for Concrete Connections shall be:
   a. "HIT RE 500" by Hilti Corporation
   b. "Set XP Epoxy by Simpson Strong Tie Corporation.
2. Exoxy for Masonry Connections shall be:
   a. "HIT RE 500" or Hilti HY 150 Max by Hilti Corporation (Grouted cells)
   b. "Hilti Hy-20" by Hilti Corporation (unegrouted cells)
   c. "Set Epoxy" by Simpson Strong Tie Corporation
   d. "Powers-Fast" by Powers Fasteners
3. All drilled holes for anchors rods 1" in diameter and smaller shall be 1/8" larger than the anchor rod being installed. All drilled holes for anchor rods greater than 1" in diameter shall be 1/4" larger than the bar or anchor rod being installed.
4. After drilling the proper size hole, clean the walls and bottom of the drilled hole of all dust and debris using a nylon brush in conjunction with oil free compressed air. The hole shall be free of dust, debris and standing water.
5. Follow all manufacturers' recommendations for epoxy installation.

MASONRY VENEER ANCHOR TIES

1. PRODUCT: Use hot-dipped galvanized ties as follows:
   A. Dovetail anchors.
   B. DX-10 seismic clip interlock system by Hohmann & Barnard.
   C. EOR approved two-piece adjustable.
2. INSTALLATION:
   A. Provide one tie for every 2 square feet of wall area.
   B. Maximum tie spacing is 16"o.c. Vert. & Horz. for 2x4 studs and 12"o.c. Vert. & 24"o.c. Horz. for 2x6's. Cover studs with 1/2" sheathing and approved paper.
   C. Provide a continuous horizontal galvanized #9 wire in the center third of mortar joints at vertical tie spacing. Engage or enclose the #9 wire at all anchor ties.
   D. Provide construction joints in veneer as per the architectural drawings with maximum 30'-0" o.c. spacing for brick and 15'-0" o.c. for block.

STRUCTURAL STEEL

1. CODES AND STANDARDS: Comply with:
   A. AISC "Specification for Structural Steel Buildings & Commentary".
   B. AISC "Code of Standard Practice" excluding sections 7.5.4, and 7.11.5.
   C. AWS "Structural Welding Code", exclude items conflicting with AISC.
2. MATERIALS SHALL CONFORM AS FOLLOWS:
   A. Wide Flange beams: ASTM A992, Fy = 50 ksi.
   B. Wide Flange columns: ASTM A992, Fy = 50 ksi.
   C. Misc. shapes & plates: ASTM A53, Fy = 36 ksi.
   D. Hollow Structural Sections: ASTM A500, Fy = 46 ksi, Gr. B.
   E. Pipe: ASTM A53, Fy = 35 ksi, Gr. B.
   F. High strength bolts: ASTM A325
   G. Anchor rods: ASTM F1554, Fy = 36 ksi.
   H. Other bolts: ASTM A307 or better.
   I. Welded anchors studs (WAS, HAS): ASTM A108, Fu = 65 ksi.
   J. Deformed bar anchors (DBA's): ASTM A496, Fy = 70 ksi, DO NOT substitute reinforcing for DBA's.
3. CONSTRUCTION:
   A. Fabricate into approved fabricator's shop.
   B. Fabricate beams with incidental camber up, UNO.
   C. Use 6000 psi (minimum at 28-day) non-shrink liquid grout beneath bearing plates. Place grout per manufacturer's recommendations prior to loading member.
   D. Add deformed bar anchors to structural sections embedded in concrete or masonry, UNO. Use the same size and spacing as the adjacent reinforcing bars. Minimum length of bars shall be 48 bar diameters but not less than 24 inches.
4. BOLTED CONNECTIONS:
   A. Use 3/4" diameter bolts in Std. holes (bolt diameter + 1/16"), UNO.
   B. Steel-to-steel connections: Use ASTM A325 type "N" connections, UNO.
   C. Other connections: Use ASTM A307 bolts or better except for anchor rods, UNO.
   D. Use hardened washers beneath the turned element of the bolt or nut. Use beveled hardened washers where the outer face of bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolts axis. At oversized holes, use hardened washers or plates at least 5/16" thick conforming to ASTM F436.
   E. Tighten bolts until all plies of the joint are in firm contact. Snug tight condition, UNO.
   F. Enlarge bolt holes by reaming. DO NOT torch cut.
5. WELDED CONNECTIONS:
   A. Perform welding and cutting by AWS certified welders in accordance with ANSI/AWS D1.1 (latest edition).
   B. For typical shop & field welds, use filler metals with nominal 70 ksi tensile strength having:
      a. Matching material for multiple pass welds.
      b. A diffusible hydrogen limit of H16 or less.
      c. A CVN toughness of 20 ft-lbs at 0 deg. F.
   C. For all connections of braced frames, use the same criteria as above but with a CVN toughness of 40 ft-lbs at 70 deg. F.
   D. Use pre-qualified procedures.
   E. Weld intersecting steel shapes together, which are not connected with bolts, with all-around fillet welds, UNO.
   F. Weld studs and DBA's according to Manufacturer's specs.
   G. Wherever possible use stay welds. The contractor shall coordinate field and shop welds between shop fabrication and the steel erector.
   H. Remove slag from welds.

STEEL DECK

1. PRODUCT:
   A. See plans for deck size and gauge, etc.
   B. Manufacture deck and accessories from cold rolled steel conforming to ASTM A653 SS Grade 33 (galvanized G60), ASTM A1008 SS Grade 33 (painted), or ASTM A653 SS Grade 80 (Form Deck) , and conform to the Steel Deck Institute and AISC Standards.
2. CONSTRUCTION:
   A. Install deck with a minimum of 3 spans, UNO. Where such layout is impossible, decking must meet design criteria for simple span condition.
   B. Provide 2" minimum deck bearing and 4" lap at splice locations. Provide structural support (angles, etc.) around the perimeter of all deck openings.
   C. DO NOT bend or mar deck.
   D. Store decking off the ground with one end elevated. Cover with waterproof material and ventilate to avoid condensation.
3. DECK WELDING REQUIREMENTS:
   A. See plans for welding pattern.
   B. Weld to framing members with E60XX or E70XX electrodes.
   C. Use 3/4" diameter puddle welds. Penetrate all deck layers with weld metal and have proper fusion to the supporting steel.
   D. Crimp side seams before welding side laps or use Verco's Punchlok system w/ connections @ 12" o.c. max. Engage all layers of the deck material.
   E. Overlap end laps at least 2" directly over a single steel support. Place welds 1" from the edge of the deck or more.
   F. Welds 3/8" x 1.5" long may replace 3/4" diameter welds.

STRUCTURAL WOOD

1. CODES AND STANDARDS: Comply with:
   A. The ANSI/AF&PA "National Design Specification", (NDS),
   B. The grading requirements of the WWPA.
2. MATERIALS: (All materials shall be clearly marked)
   A. Structural lumber species and grade shall be as follows:
      a. Joists, beams or headers: DF/L #2 or better.
      b. Posts and columns: DF/L #1 or better.
      c. Studs: DF/L #2 or better.
      d. Sill plates: DF/L #2 or better, treated.
   B. Manufactured joists: Trus-Joist or approved equal.
   C. Structural Glued-Laminated Timber: 24F-V4 for simple spans and 24F-V8 for continuous or cantilevered beams.
   D. Engineered Lumber:
      a. Structural Laminated-Veneer-Lumber (LVL): conform to the following minimum design values:
         Fb = 2,600 psi. (Joist/Beam orientation)
         Fv = 285 psi.
         E = 1,900,000 psi.
   E. Wood structural panels shall be Exposure 1 Grade or better APA rated sheathing with exterior glue and conform to Standard PS 1-83, or PS 2-92.
   F. Wood connectors shall be Simpson-Strong-Tie.
3. CONSTRUCTION:
   A. See plans for roof and floor joists sizes. Joists shall be laterally supported at bearing points by solid blocking or with metal hangers.
   B. Erect manufactured joists in accordance with the fabricator's commendations. Joists shall be able support the loads published in their design catalogs.
   C. Provide bridging at 8'-0" o.c. maximum spacing for dimensional lumber and LVL joists. Provide bridging in all other manufactured joists as per the manufacturer's recommendations.
   D. Fill all nail holes in wood connectors (framing anchors, joist hangers, purlin anchors, etc.) with nails as specified by the manufacturer, UNO.
   E. Install washers under all bolt nuts. Make bolt holes only 1/32 to 1/16 inch larger than bolts. Tighten nuts snugly, but DO NOT crush the wood. DO NOT countersink bolts, UNO.
   F. Specified nails are common and shall correspond to the following diameters and lengths: (16d -0.162"Ø & 3-1/2" long; 10d-0.148"Ø & 3" long; 8d-0.131"Ø & 2-1/2" long)
   G. Minimum nailing of members: Conform to IBC, Table 2304.9.1, UNO.
   H. Nail built-up beams of 2x_ members 12" deep or less together with 16d nails at 12" o.c., staggered. Add (2) 16d common nails at supports. Bolt 2x_ members deeper than 12" together with 1/2" bolts at 16" o.c. staggered, Add (2) bolts at supports.
   I. Fasteners in preservative-treated and fire-retardant-treated wood: Conform to IBC, Section 2304.9.5, UNO.

STRUCTURAL OBSERVATIONS

1. Structural observations shall be performed by the EOR for the following items:
   - Placement and verification of Holdown anchor bolts. Engineer to verify proper size.
   - The bolting of shear resisting walls to foundation. Engineer to verify proper size and spacing of bolts.
   - Attachment of holdowns to end post. Engineer to verify holdowns are connected to studs and nuts are tight.
   - Wood shear walls. Engineer to verify sheathing thickness, nail sizes and spacing's are according to design documents.
   - Drags and connectors. Engineer to verify proper straps and connectors have been installed
   - Verify mechanical connectors have been installed
2. THE CONTRACTOR SHALL:

   A. Provide a notification to the Architect a minimum of three days prior to the covering of the listed items.
   B. Submit a copy of the observation reports to the building official.

3

SPECIAL INSPECTION AND TESTING (IBC 1704)

Indicate required Special inspections for project by checking the appropriate boxes:

FABRICATORS (IBC1704.2)

☐ Approved Fabricator	Fabricators Name:	
☐ Unapproved Fabricator	Fabricators Name:	

Inplant inspections
☐ Steel Construction ☐ Welding ☐ Details

STEEL (IBC1704.3)

Item			Reference/Comments
High Strength Bolting(1704.3.3)	☐ Continuous	☒ Periodic	
WELDING (1704.3.1)			
Details (1704.3.2)			
Complete & partial penetration groove welds	☒ Continuous	☐ Periodic	
Multipass fillet welds	☒ Continuous	☐ Periodic	
Single-pass fillet welds < 5/16"	☒ Continuous	☐ Periodic	
Single-pass fillet welds ≤ 5/16"	☐ Continuous	☒ Periodic	
Floor & roof deck welds	☐ Continuous	☒ Periodic	
REINFORCEMENT STEEL	☐ Continuous		
Verification of weldability	☐ Continuous	☐ Periodic	
Shear wall and shear reinforcement	☐ Continuous	☐ Periodic	
Other reinforcement	☐ Continuous	☐ Periodic	
Steel frame joint details	☐ Continuous	☐ Periodic	

CONCRETE CONSTRUCTION (IBC1704.4)

Item			Reference/Comments
Materials (1704.4.1)	☐ Continuous	☒ Periodic	
Steel placement	☐ Continuous	☒ Periodic	
Steel welding	☐ Continuous	☒ Periodic	
Bolts prior & during placement	☐ Continuous	☒ Periodic	
Use of required design mix	☐ Continuous	☒ Periodic	
Concrete sampling for strength test, slump, air content, and temperature of concrete	☒ Continuous	☐ Periodic	
Concrete & shotcrete placement	☐ Continuous	☐ Periodic	
Curing temperature and techniques	☐ Continuous	☐ Periodic	
Pre-stressed concrete	☐ Continuous	☐ Periodic	
Pre-cast concrete	☐ Continuous	☐ Periodic	
Posttensioned concrete	☐ Continuous	☐ Periodic	
Form work	☐ Continuous	☐ Periodic	

MASONRY CONSTRUCTION (IBC1704.5)

Item	Reference/Comments
As masonry construction begins:	

Page 1 of 4

Site prepared mortar	☐ Continuous	☒ Periodic	
Construction of mortar joints	☐ Continuous	☒ Periodic	
Location of reinforcement, connectors, pre-stressing tendons and anchorages	☐ Continuous	☒ Periodic	
Pre-stressing technique	☐ Continuous	☐ Periodic	
Grade and size of pre-stressing tendons and anchorages	☐ Continuous	☐ Periodic	
Inspection program verify:			
Size and location of structural elements	☐ Continuous	☒ Periodic	
Type, size and location of anchors	☐ Continuous	☒ Periodic	
Size, grade and type of reinforcement	☐ Continuous	☒ Periodic	
Welding of reinforcement	☒ Continuous	☐ Periodic	
Cold and hot weather protection	☐ Continuous	☒ Periodic	
Application and measurement of pre-stressing force	☐ Continuous	☐ Periodic	
Prior to grouting verify			
Clean grout space	☐ Continuous	☒ Periodic	
Placement of reinforcement	☐ Continuous	☒ Periodic	
Grout mix	☐ Continuous	☒ Periodic	
Mortar joints	☐ Continuous	☒ Periodic	
Grout placement	☒ Continuous	☐ Periodic	
Grout and mortar specimens and prisms	☒ Continuous	☐ Periodic	
Construction and submittal compliance verification:	☐ Continuous	☒ Periodic	
Empirical masonry – Cat. I-III (1708.1.1)	☐ Continuous	☐ Periodic	
Empirical masonry – Cat. IV (1708.1.1)	☐ Continuous	☐ Periodic	
Engineered masonry – Cat. I-III (1708.1.1	☐ Continuous	☒ Periodic	SEE TABLE 1708.12 IBC 2006
Engineered masonry – Cat. IV (1708.1.1)	☐ Continuous	☐ Periodic	
Engineering & pre-stressing steel (1708.3)	☐ Continuous	☐ Periodic	
Structural steel (1708.4)	☐ Continuous	☐ Periodic	
Qualification of mechanical & electrical equipment (1708.5)	☐ Continuous	☐ Periodic	
Seismically isolated structures (1708.6)	☐ Continuous	☐ Periodic	
Testing for seismic resistance is	☐ Continuous	☐ Periodic	

WOOD CONSTRUCTION (IBC1704.6)

Item			Reference/Comments
Prefabricated elements & assembly	☐ Continuous	☐ Periodic	

SOILS CONSTRUCTION (IBC1704.7)

Item			Reference/Comments
Site preparation	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER

Page 2 of 4

Structural fill material	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER
Structural fill lift thickness	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER
Structural fill soil densities	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER
Backfill soils materials	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER
Backfill soil densities	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER
Fill material under side walks and parking	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER
Fill soil densities under side walks and parking	☐ Continuous	☐ Periodic	PER SOILS REPORT OR SOILS ENGINEER

PILE FOUNDATIONS (IBC1704.8)

Item			Reference/Comments
Observe driving operation and reporting	☐ Continuous	☐ Periodic	
Verify placement & installation data	☐ Continuous	☐ Periodic	

PIER FOUNDATIONS (IBC1704.9)

Item			Reference/Comments
Observe drilling operation and reporting	☐ Continuous	☐ Periodic	
Verify placement & installation data	☐ Continuous	☐ Periodic	

SPRAYED FIRE-RESISTANT MATERIALS (IBC1704.10)

Item			Reference/Comments
Structural member surface conditions	☐ Continuous	☐ Periodic	
Material application	☐ Continuous	☐ Periodic	
Material thickness	☐ Continuous	☐ Periodic	
Material density	☐ Continuous	☐ Periodic	
Bonding strength	☐ Continuous	☐ Periodic	

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (IBC1704.11)

Item			Reference/Comments
Material and installation	☐ Continuous	☐ Periodic	

EXTERIOR INSTULATION AND FINISH SYSTEMS (EIFS) (IBC1704.12)

Item			Reference/Comments
Material and installation	☐ Continuous	☐ Periodic	

ALTERNITIVE CONSTRUCTION METHODS OR MATERIALS (IBC1704.13)

Item			Reference/Comments
Material and installation	☐ Continuous	☐ Periodic	

EPOXY (IBC1704.13)

Item			Reference/Comments
Material and installation	☐ Continuous	☒ Periodic	

SMOKE CONTROL (IBC1704.14)

Item			Reference/Comments
Material	☐ Continuous	☒ Periodic	

Page 3 of 4

Installation	☐ Continuous	☐ Periodic	

Special inspection for seismic resistance (IBC1707)

Item			Reference/Comments
Structural Steel (1707.2)	☐ Continuous	☐ Periodic	
Structural Wood (1707.3)	☐ Continuous	☒ Periodic	
Cold-formed steel framing (1707.4)	☐ Continuous	☐ Periodic	
Pier foundations (1707.5)	☐ Continuous	☐ Periodic	
Storage racks & access floors (1707.6)	☐ Continuous	☐ Periodic	
Architectural components (1707.7)	☐ Continuous	☐ Periodic	
Mechanical & electrical items (1707.8)	☐ Continuous	☐ Periodic	
Designated systems verification (1707.9)	☐ Continuous	☐ Periodic	
Seismic isolation systems (1707.10)	☐ Continuous	☐ Periodic	

Inspection of seismic resistance are not required per IBC 1705.3 ☐

OTHER

Item			Reference/Comments
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	

Special Inspectors Shall:
- Be approved by the Building Official prior to performing any duties;
- Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
- Inspection reports are to meet the requirements of IBC 1704.1.2 and DFCM standards,
- Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hrs. of inspections;
- **A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the drawings, specifications and applicable codes. IBC 1704.1.2**

Page 4 of 4

GENERAL NOTES:

KEY NOTES:

WCA Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wca@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

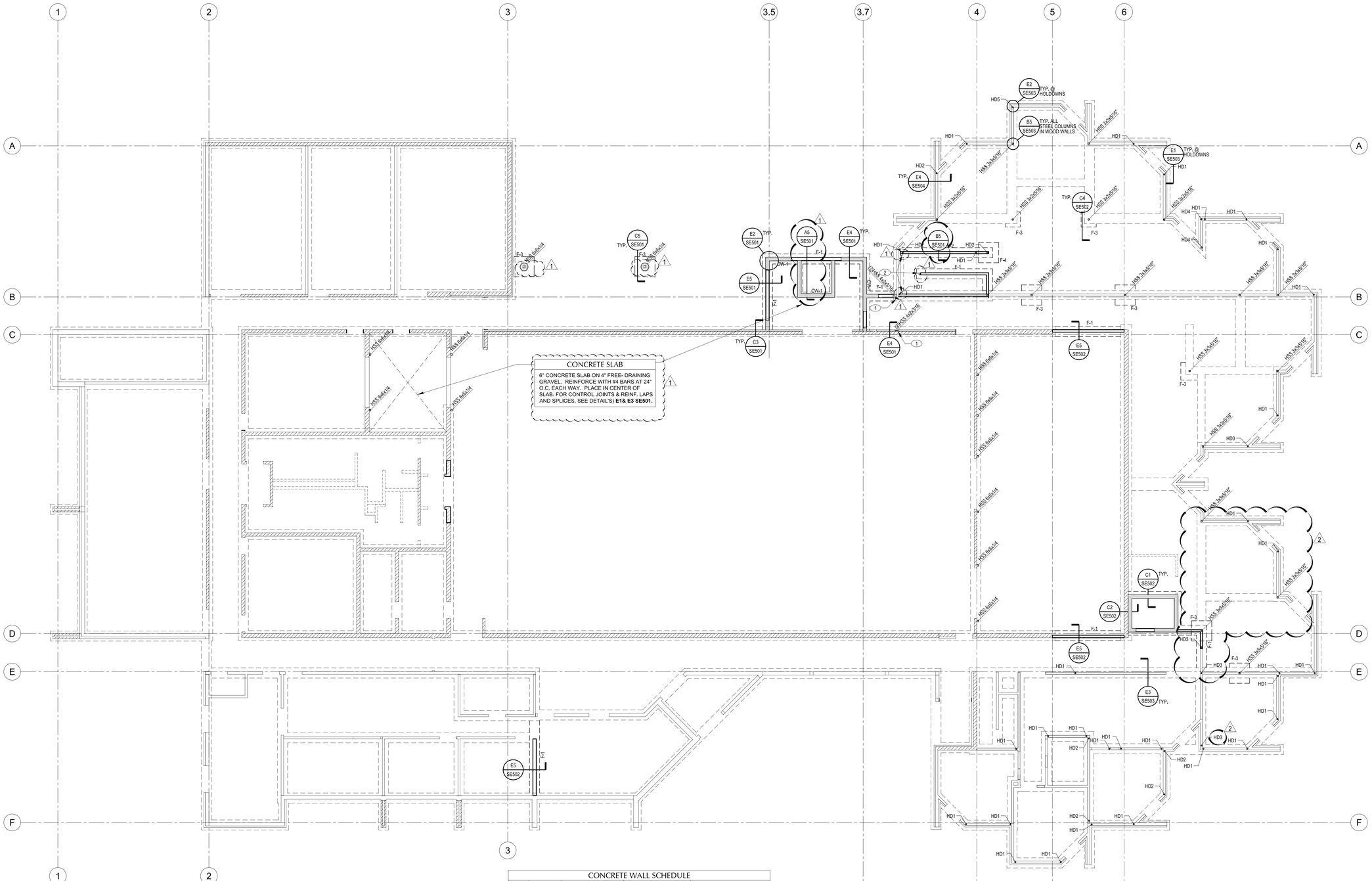
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 8 09	08008
1 12 09	08008
1 13 09	08008

REGISTERED PROFESSIONAL ENGINEER
No.189660
CLIFF R. COLE
STATE OF UTAH

STRUCTURAL GENERAL NOTES

SE 100



GENERAL NOTES:

- PROVIDE DRILL AND EPOXY DOWELS IN EXISTING CONCRETE MATCHING SIZE AND SPACING OF NEW FOOTING OR FOUNDATION REINFORCING. SEE DETAIL **C3/SE501** AND DETAIL **E4/SE502** FOR EMBEDMENT.
- ALL HOLDOWNS ON UPPER MUST BE CONTINUOS TO FOUNDATION SEE DETAIL **D5/SE503**.
- SEE DETAIL **D5/SE504** FOR TYPICAL RETAINING WALL

KEY NOTES:

1. SEE DETAIL **A4/SE501** FOR ATTACHMENT OF STEEL COLUMN TO MASONRY WALL
2. STEEL COLUMN FOR STEEL STAIRS, SEE ARCH.

LEGEND:

SIMPSON STRONG-TIE HOLDOWN or FLOOR-TIE ANCHOR SCHEDULE

MARK	MODEL	ANCHOR or TIE BOLT	STUD SIZE (MINIMUM)	HD to STUD CONNECTION	NOTES
HD-1	HDU2	5/8"Ø W/ 8" EMBED	(2) - 2x_ STUDS, G & N	FULLY SCREWED	
HD-2	HDU4	5/8"Ø W/ 8" EMBED	(2) - 2x_ STUDS, G & N	FULLY SCREWED	
HD-3	HDU5	5/8"Ø W/ 8" EMBED	(2) - 2x_ STUDS, G & N	FULLY SCREWED	
HD-4	HDU8	7/8"Ø W/ 15" EMBED	(3) - 2x_ STUDS, G & N	FULLY SCREWED	
HD-5	HDU11	1"Ø W/ 15" EMBED	(4) - 2x_ STUDS, G & N	FULLY SCREWED	

HD = HOLDOWN
EMBED. = EMBEDMENT LENGTH INTO CONCRETE
G & N = GLUE AND NAIL W/ 16D @ 8" O.C. STAGGERED
D & E = DRILLED & EPOXY ANCHOR

NOTES:
1. WASHER REQUIRED UNDER ALL BOLT NUTS, INCLUDING NUTS ON ANCHOR BOLT. STUD SIZE REPRESENTS THE MINIMUM SIZE AND NUMBER OF STUDS REQUIRED AT HOLDOWN.
2. 1 1/2" SPACE REQUIRED BETWEEN THE BOTTOM OF HOLDOWN AND WALL PLATE. TYPICAL ALL HOLDOWNS.
3. ANY HOLDOWN MAY BE REPLACED WITH A HOLDOWN THAT FOLLOWS IN THE HOLDOWN SCHEDULE.
4. ALL STUDS ATTACHED TO HOLDOWN ARE REQUIRED TO BE NAILED WITH THE REQUIRED PANEL EDGE NAILING OR 4"o.c. MINIMUM WHICHEVER IS MORE RESTRICTIVE.
5. INSTALL HOLDOWN PER MANUFACTURER'S RECOMMENDATIONS, UNO.
6. SEE DETAIL **D5/SE503** FOR TYPICAL HOLDOWN ALLIGNMENT BETWEEN FLOORS
7. ANY 2x STUD ADDED FOR ATTACMENT OF HOLDOWNS AT THE END OF WALLS. WHERE EDGE NAILNG CANNOT BE INSTALLED SHALL BE GLUED TO THE SHEATHING WITH A 3/8" BEAD OF CONSTRUCTION ADHESIVE

FOOTING SCHEDULE

MARK	SIZE			BOTTOM REINFORCING	TOP REINFORCING	NOTES
	WIDTH	LENGTH	THICK			
F-1	2'-0"	CONT.	12"	(3) #4 CONTINUOUS	NONE	
F-2	2'-0"	CONT.	12"	(3) #4 CONTINUOUS	(3) #4 CONTINUOUS	
F-3	3'-6"	3'-6"	12"	#4 BARS @ 8" O.C. E.W.	#4 BARS @ 8" O.C. E.W.	SEE NOTE 9
F-4	4'-0"	4'-0"	12"	(4) #5 BARS E.W.	(4) #5 BARS E.W.	

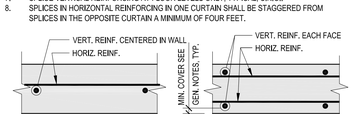
C.W. = CROSSWISE E.W. = EACH WAY L.W. = LENGTHWISE

1. ALL FOOTINGS ARE MARK F-1, U.N.O..
2. BEAR FOOTINGS ON PROPERLY PREPARED MATERIAL.
3. BEAR EXTERIOR FOOTINGS BELOW THE EFFECTS OF FROST.
4. CENTER FOOTINGS BELOW THE WALL AND/OR COLUMN ABOVE. TYPICAL UNO.
5. PROVIDE 2x4 BEVELED KEYWAYS IN CONTINUOUS WALL FOOTINGS. UNO
6. PROVIDE 3" CLEAR CONCRETE COVER AT BOTTOM REINF., UNO.
7. PROVIDE DOWELS WITH STANDARD HOOK FROM FOOTINGS TO ANY REINFORCED ELEMENT ABOVE. DOWEL SIZE TO MATCH VERTICAL REINFORCING IN ELEMENT ABOVE. UNO
8. ANY INCREASE IN THE SIZE OF FOOTINGS FOR CONSTRUCTION CONVENIENCE, MAY REQUIRE ADDITIONAL REINFORCING. COORDINATE WITH THE EOR
9. AT EXISTING FOOTINGS ADD NEW CONCRETE TO EXISTING FOOTING TO CREATE A FOOTING WITH THE DIMNESIONS SHOWN IN SCHEDULE. PROVIDE # 4 BARS @ 8" O.C. SEE DETAIL **C4/SE502**

CONCRETE WALL SCHEDULE

MARK	THICKNESS	VERTICAL REINF.	HORIZONTAL REINF.	NOTES
CW-1	8"	#4 @ 18" O.C.	#4 @ 12" O.C.	(2) #5 TOP & BOTTOM, TYPE 'A'

1. ALL WALLS ARE MARK CW-1, U.N.O..
2. CONTRACTOR TO VERIFY ALL WALL THICKNESSES W/ ARCHITECT.
3. PROVIDE CORNER BARS AT ALL CORNERS AND INTERSECTING WALLS, SEE DETAIL **E2/SE501**.
4. WHEN A SINGLE CURTAIN OF REINFORCING IS SPECIFIED, PLACE THE VERTICAL REINFORCING IN THE CENTER OF THE WALL, TYPICAL, U.N.O..
5. WHEN A DOUBLE CURTAIN OF REINFORCING IS SPECIFIED, PLACE EACH CURTAIN OF STEEL AT THE FACE OF THE WALL WITH MINIMUM COVER AS SPECIFIED IN THE GENERAL NOTES. PLACE THE VERTICAL REINFORCING CLOSEST TO THE FORMS, TYPICAL, U.N.O..
6. PROVIDE DOWELS WITH STANDARD HOOKS TO THE STRUCTURE BELOW WITH SIZE AND SPACING TO ATTACH THE VERTICAL REINFORCING IN THE WALL ABOVE.
7. SPLICE VERTICAL REINFORCING AT FLOOR LEVELS ONLY, TYPICAL, U.N.O..
8. SPLICES IN HORIZONTAL REINFORCING IN ONE CURTAIN SHALL BE STAGGERED FROM SPLICES IN THE OPPOSITE CURTAIN A MINIMUM OF FOUR FEET.



TYPE A: SINGLE CURTAIN AT WALL CENTERLINE

TYPE B: DOUBLE CURTAIN

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wcu@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

STATE MAIL SERVICES

WEST VALLEY, UTAH

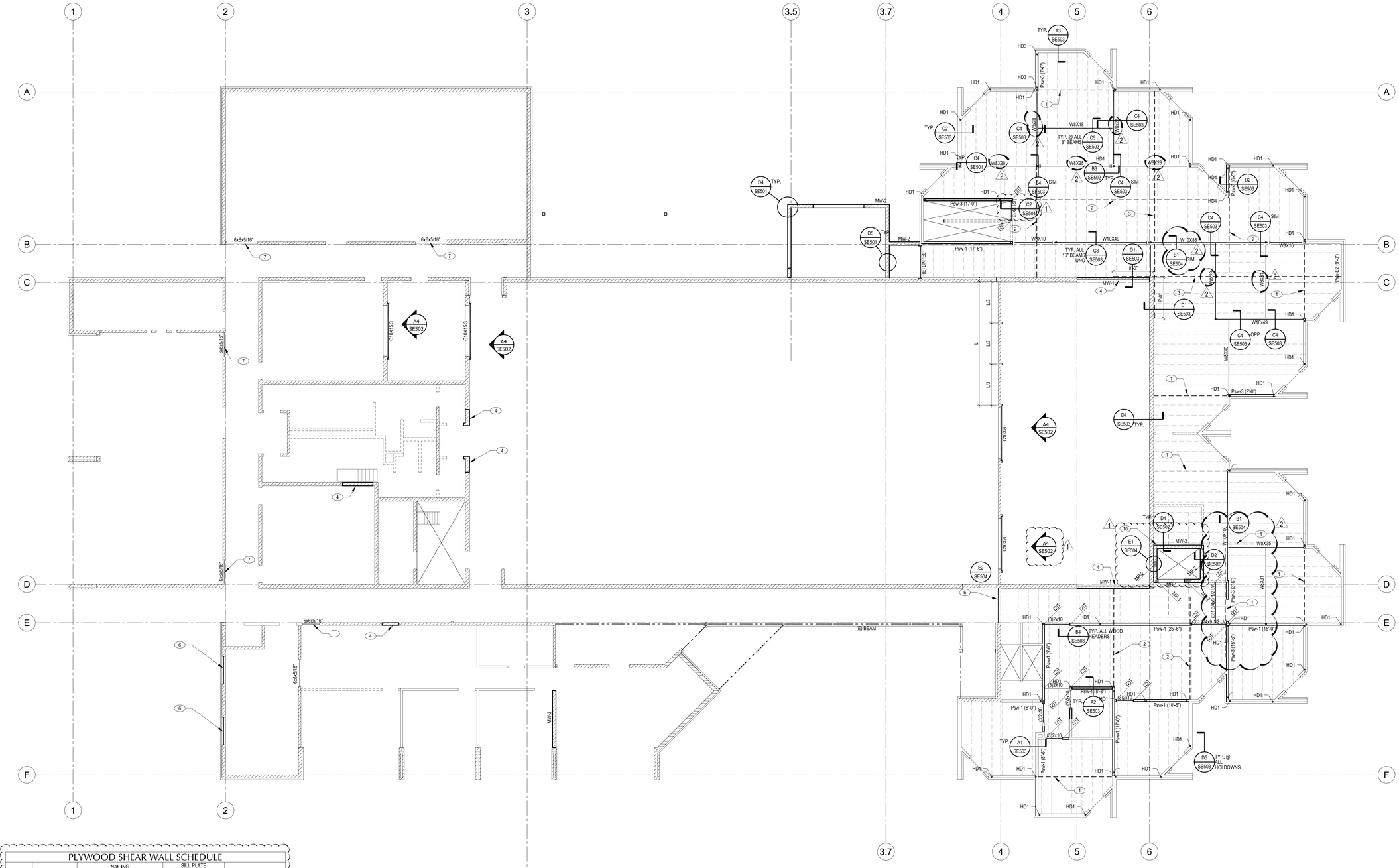
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 - 8 - 09	08008
1 12 09	08008
1 13 09	08008

REGISTERED PROFESSIONAL ENGINEER No.189660 CLIFF R. COLE STATE OF UTAH

FOOTING AND FOUNDATION PLAN

SE 101



PLYWOOD SHEAR WALL SCHEDULE

MARK	SHEATHING A.P.A. RATED	NAILING		SILL PLATE ATTACHMENT TO TO FOUNDATION OR DIAPHRAGM	REMARKS
		PANEL EDGES	INTERMEDIATE SUPPORTS		
Psw-E1	EXISTING	-	-	2x w/ 16d @ 8" O.C.	NOTE 15
Psw-E2	EXISTING	-	-	2x w/ 5/8" @ 32" O.C.	NOTE 15
Psw-1	15/32 (1) SIDE	10d @ 4" O.C.	10d @ 12" O.C.	2X W/ 5/8" Ø @ 24"	NOTE 16
Psw-3	19/32 (1) SIDE	10d @ 2" O.C.	10d @ 12" O.C.	3xW/ 3/4" Ø @ 12"	NOTE 12, 13,18

NOTE:

1. USE EXPOSURE 1 APA RATED SHEATHING WITH A MINIMUM SPAN INDEX OF 24/16,
2. ALL SHEATHING PANEL EDGES SHALL BE BLOCKED WITH A SINGLE COMMON BACK-UP MEMBER, TYPICAL.
3. WHEN BOTH FACES OF THE WALL ARE SHEATHED, STAGGER ALL JOINTS IN PLYWOOD, BOTH VERTICAL AND HORIZONTAL, ON ONE FACE OF WALL WITH THE JOINTS ON THE OTHER FACE OF THE WALL, TYPICAL.
4. ALL NAILS SHALL BE DRIVEN FLUSH WITH SURFACE OF SHEATHING. DO NOT UNDER OR OVER DRIVE NAILS.
5. USE COMMON NAILS AT SPACING SHOWN. CONTACT THE E.O.R. IF STAPLES ARE TO BE SUBSTITUTED.
6. IF STAPLES ARE USED INSTEAD OF NAILS, ALL SHEATHING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO STUDS.
7. HORIZONTAL SPLICES IN SHEATHING SHALL NOT OCCUR AT HORIZONTAL JOINTS IN FRAMING. DO NOT PLACE JOINTS AT TOP EDGE OF TOP PLATE OR AT BOTTOM EDGE OF AN UPPER WALL SILL PLATE.
8. ANCHOR BOLTS SHALL INCLUDE STEEL PLATE WASHERS WITH A MINIMUM 0.229"x3"x3" IN SIZE.
9. ANCHOR BOLTS IN SILL PLATES SHALL BE PLACED SO AS NOT TO COINCIDE WITH THE LOCATION OF THE STUDS ABOVE.
10. SPECIFIED NAILS ARE COMMON AND SHALL CORRESPOND TO THE FOLLOWING DIAMETERS AND LENGTHS: (16D -0.162"Ø & 3-1/2" LONG; 10D-0.148"Ø & 3" LONG; 8D-0.131"Ø & 2-1/2" LONG), OTHERWISE CONTACT EOR. USING NAILS OTHER THAN THOSE SPECIFIED MAY RESULT IN THE DEMOLISHION OF WORK AND FRAMING TO BE REPLACED.
11. FIRST SHEET OF SHEAR WALL SHEATHING TO START AT FOUNDATION SILL PLATE.
12. PROVIDE 3x_ NOMINAL FRAMING AT ALL ABUTTING PANEL EDGES.
13. PROVIDE 3x_ NOMINAL SILL PLATE.
14. MINIMUM WALL LENGTH SHOWN ON PLANS.
15. NO NEW PLYWOOD IS ADDED TO EXISTING WALL. CONTRACTOR TO VERIFY SILL PLATE NAILING AND BOLTING AS SHOWN IN SCHEDULE.
16. SECOND FLOOR BOTTOM PLATE ATTACHMENT 16d @ 12" O.C.
17. SECOND FLOOR BOTTOM PLATE ATTACHMENT 1/4x4" SIMPSON SDS SCREWS @ 12" O.C
18. SECOND FLOOR BOTTOM PLATE ATTACHMENT 1/4x4" SIMPSON SDS SCREWS @ 8" O.C.

MASONRY WALL SCHEDULE

MARK	THICK	VERTICAL REINF.	HORIZONTAL REINF.	WALL CONSTRUCTION NOTES
MW-1	6"	(1) #5 @ 32" O.C.	(1) #4 @ 48" O.C.	RUNNING BOND
MW-2	8"	(1)#5@ 32" O.C.	(2) #4 @ 48" O.C.	RUNNING BOND
MW-3	Match Existing	(1) #5 @ 32" O.C.	(2) #4 @ 48" O.C.	RUNNING BOND

1. ALL MASONRY WALLS ARE MW-1, UNO.
2. TERMINATE ALL REINFORCING (BOTH VERTICAL AND HORIZONTAL) WITH A STANDARD HOOK, OR APPROVED EQUAL.
3. DO NOT SOLID GROUT WALLS UNLESS SPECIFICALLY NOTED ON PLANS.
4. SOLID GROUT ALL CELLS WITH REINFORCING AND/OR EMBEDS, TYPICAL.
5. LAY BLOCK IN RUNNING BOND, TYPICAL UNO.
6. TOOL MORTAR JOINTS CONCAVE, TYPICAL, UNO.
7. PROVIDE MINIMUM COVER FOR REINFORCING PER THE GENERAL NOTES.
8. PROVIDE CORNER BARS AT CORNERS AND INTERSECTING WALLS.
9. DOWEL TO THE STRUCTURE BELOW WITH BARS MATCHING THE VERTICAL WALL REINFORCING, UNO.
10. PLACE VERTICAL REINFORCING IN THE CENTER OF THE WALL UNLESS EACH FACE IS SPECIFIED.
11. REMOVE BACK-TO-BACK FACE SHELLS AT INTERSECTING WALLS. ALTERNATE REMOVED FACE SHELLS, COURSE BY COURSE.
12. ADD LADDER-TYPE JOINT REINFORCING OF 2-#9 WIRES (3-#9 WIRES WITH VENEER) AT 16" O.C. HORIZONTALLY IN ALL MASONRY WALLS.
13. AT INTERFACE BETWEEN NEW AND EXISTING MASONRY WALLS PROVIDE DRILL AND EPOXIED REBAR DOWELS MATCHING SIZE AND SPACING OF WALL REINFORCING. SEE DETAIL **E4/SE502** FOR EMBEDMENT.

FRAMING NOTES:

NOTES:

1. APPLY TYPICAL OR SIMILAR DETAILS, SECTIONS AND NOTES TO SIMILAR SITUATIONS ON THE DRAWINGS WHERE SPECIFIC DETAILS ARE NOT REFERENCED.
2. DRAWINGS AND DETAILS HAVE BEEN PREPARED WITH THE INTENT TO VISUALLY REPRESENT INFORMATION PROVIDED IN SCALED FORM. DO NOT SCALE PLANS OR DETAILS FOR DIMENSIONAL INFORMATION.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

WOOD WALL FRAMING:

1. ALL NEW WOOD INFILL SHALL MATCH (E) WALL STUDS SIZE AND BE SPACED AT 16" O.C.
2. TYPICAL TRIMMER AND KINGSTUD NOTATION (2)T= 2 TRIMMERS, (2)KS = 2 KING STUDS
3. USE A MINIMUM OF (1) KING STUD ON INTERIOR HEADERS.

WOOD BEAM AND WOOD COLUMN NOTES:

1. UNLESS NOTED OTHERWISE ALL WOOD BEAMS SHALL BE SUPPORTED BY A MINIMUM OF (2) 2x DF#2 OR BTR.
2. BUILT-UP BEAMS ARE TO BE SPIKING TOGETHER AT EACH LAMINATION (EACH PLY) AS PER THE FOLLOWING:
   6" DEEP; (2) ROWS OF 10d COMMON @ 16"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
   8" DEEP; (3) ROWS OF 10d COMMON @ 16"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
   10" DEEP; (3) ROWS OF 10d COMMON @ 12"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
   12-16" DEEP; (4) ROWS OF 10d COMMON @ 12"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
3. ALL COLUMNS ARE TO BE CONTINUOUS FROM BEAM TO FOUNDATION. WOOD COLUMNS MAY BE SPLICED AT FLOOR LOCATIONS PROVIDED THAT SOLID BLOCKING IS INSTALLED TO TRANSFER LOAD AROUND FLOOR JOIST.
4. BUILT-UP COLUMN (MULTIPLE 2x STUDS) ARE TO BE SPIKED TOGETHER AS PER THE FOLLOWING:
   2x4"S: (1) ROW OF 10d COMMON @ 6"O.C. STAGGERED 1" ABOUT CENTERLINE.
   2x6"S: (2) ROWS OF 10d COMMON @ 8"O.C. STAGGERED 1-1/2" FROM EDGES.

SCHEDULE NOTE

FOR MASONRY PIER AND MASONRY BEAM SCHEDULES SEE SCHEDULE SHEET SE301

GENERAL NOTES:

KEY NOTES:

1. CONT. DRAG USE SIMPSON CMSTC16 STRAP, LAP ON TO WALL ACCORDING TO DETAIL **D2/SE503 OR D4/SE504**. SEE DETAIL **A2 A/SE504** FOR BLOCKING BELOW STRAP.
2. CONT. DRAG USE SIMPSON CMST12 LAP ONTO WALL ACCORDING TO DETAIL **D2/SE503 OR D4/SE504.** SEE DETAIL **A2 A/SE504** FOR BLOCKING BELOW STRAP.
3. CONT. DRAG USE (2) SIMPSON CMST16 LAP ONTO WALL ACCORDING TO DETAIL **D1/SE503.** SEE DETAIL **A2 B/SE504** FOR BLOCKING BELOW STRAP.
4. MASONRY INFILL DRILL AND EPOXY ALL VERTICAL AND HORIZONTAL BARS TO EXISTING MASONRY EMBED BARS A MINIMUM OF 5", SEE MW-3 AND DETAIL **C4/SE504**
5. NEW, STEEL COLUMN ATTACH COLUMN TO MASONRY ACCORDING TO DETAIL **A4/SE502**
6. 7/8"x12"x11" (LLV) BENT OR FABRICATED PLATE SEE DETAIL **D5/SE502 VIEW A**
7. STEEL LINTEL SEE DETAIL **D5/SE502 VIEW B**
8. VERIFY SILL PLATE ATTACHMENT IS ADEQUATE ACCORDING TO PSWE2 IN THE SHEAR WALL SCHEDULE
9. PROVIDE THREADED ROD WELDED TO STEEL BEAM FOR ATTACHMENT OF HOLDOWN. SEE HOLDOWN SCHEDULE FOR SIZE
10. SOLID GROUT MASONRY WALL AROUND ELEVATOR SHAFT

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wca@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

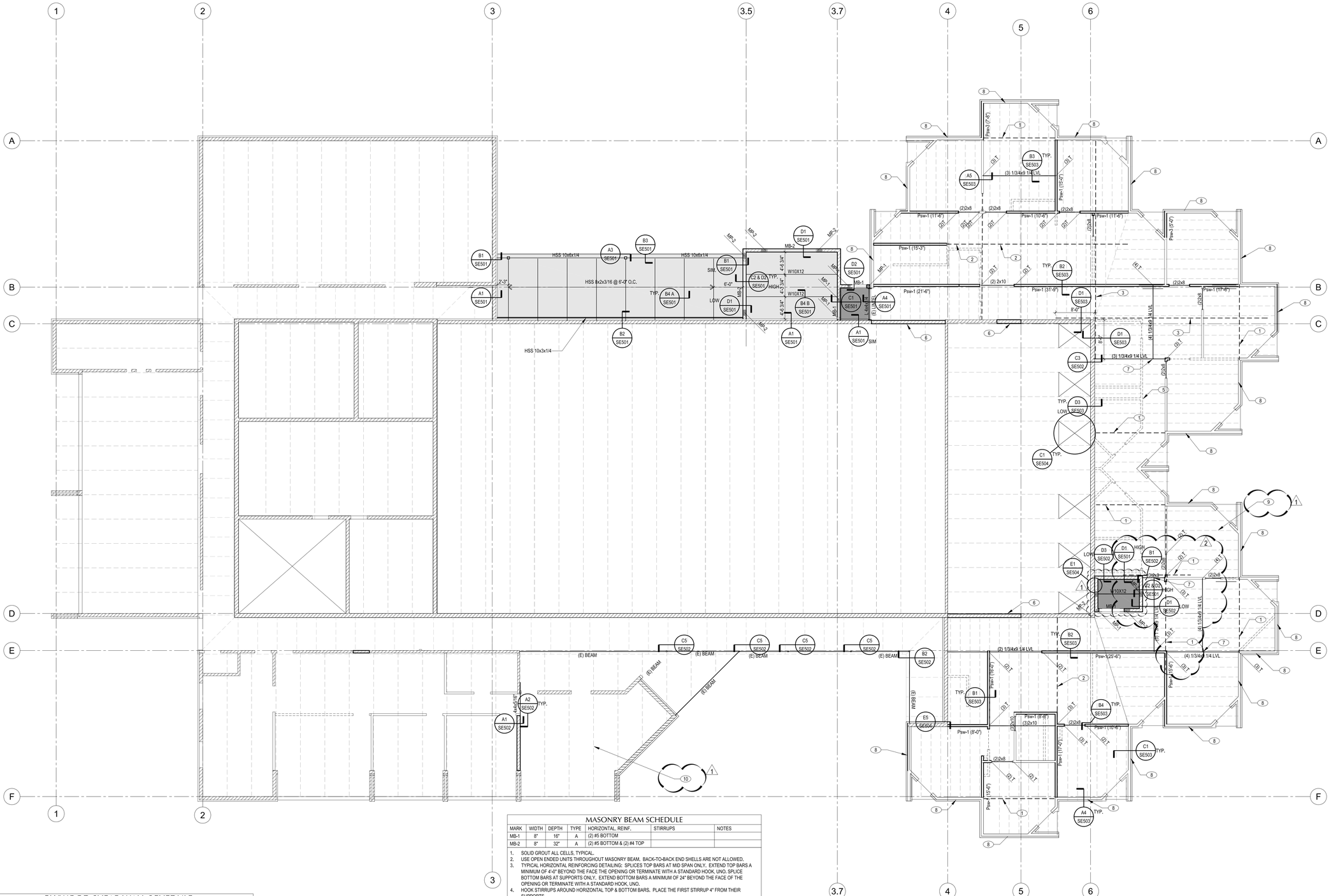
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 8 09	08008
1 12 09	08008
1 13 09	08008

REGISTERED PROFESSIONAL ENGINEER No.189660 CLIFF R. COLE STATE OF UTAH

FLOOR FRAMING PLAN

SE 201



GENERAL NOTES:

KEY NOTES:

1. CONT. DRAG USE SIMPSON CMSTC16 STRAP, LAP ON TO WALL ACCORDING TO DETAIL**D2/SE503.**
2. CONT. DRAG USE SIMPSON CMST12 LAP ONTO WALL ACCORDING TO DETAIL **D2/SE503.**
3. CONT. DRAG USE (2) SIMPSON CMST16 LAP ONTO WALL ACCORDING TO DETAIL **D1/SE503**
4. MASONRY INFILL DRILL AND EPOXY ALL VERTICAL AND HORIZONTAL BARS TO EXISTING MASONRY EMBED BARS A MINIMUM OF 5"
5. NON BEARING PARTITION WALLS TYPICAL
6. MASONRY INFILL SEE NOTE 4 ON SHEET SE201
7. SIMPSON HB TOP FLANGE HANGER OR EQUAL
8. VERIFY SILL PLATE ATTACHMENT IS ADEQUATE ACCORDING TO PSWE1 IN THE SHEAR WALL SCHEDULE
9. FOR TYPICAL WOOD DECK PENETRATION SEE DETAIL **C4/SE504**
10. FOR TYPICAL STEEL DECK OPENING SEE DETAIL SEE DETAI**L C3/SE504**

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wca@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION			PROJECT #.
1	8	09	08008
1	12	09	08008
1	13	09	08008

REGISTERED PROFESSIONAL ENGINEER No.189660 CLIFF R. COLE STATE OF UTAH

ROOF FRAMING PLAN

SE 301

PLYWOOD SHEAR WALL SCHEDULE

MARK	SHEATHING A.P.A. RATED	NAILING: PANEL EDGES	NAILING: INTERMEDIATE SUPPORTS	SILL PLATE ATTACHMENT TO TO FOUNDATION OR DIAPHRAGM	REMARKS
Psw-E1	EXISTING	-	-	2x w/ 16d @ 8" O.C.	NOTE 15
Psw-E2	EXISTING	-	-	2x w/ 5/8" Ø @ 32" O.C.	NOTE 15
Psw-1	15/32 (1) SIDE	10d @ 4" O.C.	10d @ 12" O.C.	2X W/ 5/8" Ø @ 24"	NOTE 16
Psw-3	19/32 (1) SIDE	10d @ 2" O.C.	10d @ 12" O.C.	3xW/ 3/4" Ø @ 12"	NOTE 12, 13,18

NOTE:

1. USE EXPOSURE 1 APA RATED SHEATHING WITH A MINIMUM SPAN INDEX OF 24/16.
2. ALL SHEATHING PANEL EDGES SHALL BE BLOCKED WITH A SINGLE COMMON BACK-UP MEMBER, TYPICAL.
3. WHEN BOTH FACES OF THE WALL ARE SHEATHED, STAGGER ALL JOINTS IN PLYWOOD, BOTH VERTICAL AND HORIZONTAL, ON ONE FACE OF WALL WITH THE JOINTS ON THE OTHER FACE OF THE WALL, TYPICAL.
4. ALL NAILS SHALL BE DRIVEN FLUSH WITH SURFACE OF SHEATHING. DO NOT UNDER OR OVER DRIVE NAILS.
5. USE COMMON NAILS AT SPACING SHOWN. CONTACT THE E.O.R, IF STAPLES ARE TO BE SUBSTITUTED.
6. IF STAPLES ARE USED INSTEAD OF NAILS, ALL SHEATHING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO STUDS.
7. HORIZONTAL SPLICES IN SHEATHING SHALL NOT OCCUR AT HORIZONTAL JOINTS IN FRAMING. DO NOT PLACE JOINTS AT TOP EDGE OF TOP PLATE OR AT BOTTOM EDGE OF AN UPPER WALL SILL PLATE.
8. ANCHOR BOLTS SHALL INCLUDE STEEL PLATE WASHERS WITH A MINIMUM 0.229"x3"x3" IN SIZE.
9. ANCHOR BOLTS IN SILL PLATES SHALL BE PLACED SO AS NOT TO COINCIDE WITH THE LOCATION OF THE STUDS ABOVE.
10. SPECIFIED NAILS ARE COMMON AND SHALL CORRESPOND TO THE FOLLOWING DIAMETERS AND LENGTHS: (16D-0.162"Ø & 3-1/2" LONG; 10D-0.148"Ø & 3" LONG; 8D-0.131"Ø & 2-1/2" LONG). OTHERWISE CONTACT EOR. USING NAILS OTHER THAN THOSE SPECIFIED MAY RESULT IN THE DEMOLISHION OF WORK AND FRAMING TO BE REPLACED.
11. FIRST SHEET OF SHEAR WALL SHEATHING TO START AT FOUNDATION SILL PLATE.
12. PROVIDE 3x_ NOMINAL FRAMING AT ALL ABUTTING PANEL EDGES.
13. PROVIDE 3x_ NOMINAL SILL PLATE.
14. MINIMUM WALL LENGTH SHOWN ON PLANS.
15. NO NEW PLYWOOD IS ADDED TO EXISTING WALL. CONTRACTOR TO VERIFY SILL PLATE NAILING AND BOLTING AS SHOWN IN SCHEDULE.
16. SECOND FLOOR BOTTOM PLATE ATTACHMENT 16d @ 12" O.C.
17. SECOND FLOOR BOTTOM PLATE ATTACHMENT 1/4x4" SIMPSON SDS SCREWS @ 12" O.C
18. SECOND FLOOR BOTTOM PLATE ATTACHMENT 1/4x4" SIMPSON SDS SCREWS @ 8" O.C.

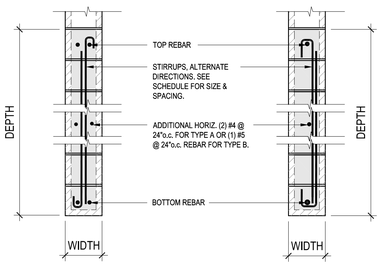
ROOF DECKS

1. SEE GENERAL NOTES: "STEEL DECK" FOR ADDITIONAL INFORMATION.
2. CONNECTIONS: WELD DECK TO SUPPORTING FRAMING MEMBERS WITH EITHER AN E60 OR E70 ELECTRODE WITH PUDDLE WELDS HAVING A FUSION AREA NOT LESS THAN 3/4" EFFECTIVE DIAMETER AS FOLLOWS (WELDS SHALL PENETRATE ALL LAYERS OF DECK AND HAVE PROPER FUSION TO THE SUPPORTING MEMBERS.):
   A. @ EACH FLUTE & TWO AT PANEL LAPS (ONE EACH SIDE OF SEAM).
   B. 6" O.C. @ ALL SUPPORTS PARALLEL TO DECK CORRUGATIONS.
   C. FASTEN SIDE LAPS BY ONE OF THE FOLLOWING:
      a. HSB TYPE DECK: TOP SEAM WELDS AT 18" O.C., CRIMP SIDE SEAMS BEFORE WELDING SIDE LAPS. ENGAGE ALL LAYERS OF THE DECK MATERIAL.
      b. PLB TYPE DECK: VERCO'S PUNCHLOK SYSTEM W/ CONNECTIONS @ 12" O.C. MAX. ENGAGE ALL LAYERS OF THE DECK MATERIAL. (A STANDARD BUTTON PUNCH CAN NOT BE USED IN PLACE OF VERCO'S PUNCHLOK.)
3. ROOF DECK: VERCO TYPE HSB-36 OR PLB-36, GALVANIZED G60, 36" WIDE, 1.5" DEEP, HAVING MINIMUM I = 0.216 IN^4, +S = 0.235 IN^3 AND -S = 0.248 IN^3.
4. 20 GAGE ROOF DECK LOCATIONS SHOWN BY
   16 GAGE ROOF DECK LOCATIONS SHOWN BY SINGLE SPAN
5. THE REQUIRED ALLOWABLE DIAPHRAGM SHEAR IS 937 plf WITH A DECK SPAN OF 6'-0". ANY SUBSTITUTION OF THE ABOVE DECK CONNECTIONS SHALL MEET OR EXCEED THE ALLOWABLE DIAPHRAGM SHEAR. CONTACT THE E.O.R. PRIOR TO SUBSTITUTING ANY CONNECTION SPECIFIED.

MASONRY BEAM SCHEDULE

MARK	WIDTH	DEPTH	TYPE	HORIZONTAL, REINF.	STIRRUPS	NOTES
MB-1	8"	16"	A	(2) #5 BOTTOM		
MB-2	8"	32"	A	(2) #5 BOTTOM & (2) #4 TOP		

1. SOLID GROUT ALL CELLS, TYPICAL.
2. USE OPEN ENDED UNITS THROUGHOUT MASONRY BEAM. BACK-TO-BACK END SHELLS ARE NOT ALLOWED.
3. TYPICAL HORIZONTAL REINFORCING DETAILING: SPLICES TOP BARS AT MID SPAN ONLY. EXTEND TOP BARS A MINIMUM OF 4'-0" BEYOND THE FACE THE OPENING OR TERMINATE WITH A STANDARD HOOK, UNO. SPLICE BOTTOM BARS AT SUPPORTS ONLY. EXTEND BOTTOM BARS A MINIMUM OF 24" BEYOND THE FACE OF THE OPENING OR TERMINATE WITH A STANDARD HOOK, UNO.
4. HOOK STIRRUPS AROUND HORIZONTAL TOP & BOTTOM BARS. PLACE THE FIRST STIRRUP 4" FROM THEIR SUPPORTS.
5. EXTEND VERTICAL WALL REINFORCING TO BOTTOM OF BEAM IN ADDITION TO BEAM STIRRUPS.
6. EXTEND THE END SUPPORTS VERTICAL STEEL THE FULL HEIGHT OF THE WALL. (LEVEL TO LEVEL)
7. PROVIDE VERTICAL WALL CONTROL JOINTS ABOVE BEAMS NEAR BEAM MID-SPANS ONLY, UNO. DO NOT PLACE CONTROL JOINTS AT OR NEAR FACE OF SUPPORTS OR EXTEND JOINTS THRU THE BEAMS.
8. DO NOT ALLOW PENETRATIONS THROUGH MASONRY BEAMS.
9. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.



FRAMING NOTES:

NOTES:

1. APPLY TYPICAL OR SIMILAR DETAILS, SECTIONS AND NOTES TO SIMILAR SITUATIONS ON THE DRAWINGS WHERE SPECIFIC DETAILS ARE NOT REFERENCED.
2. DRAWINGS AND DETAILS HAVE BEEN PREPARED WITH THE INTENT TO VISUALLY REPRESENT INFORMATION PROVIDED IN SCALED FORM. DO NOT SCALE PLANS OR DETAILS FOR DIMENSIONAL INFORMATION.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

WOOD WALL FRAMING:

1. ALL NEW WOOD INFILL SHALL MATCH (E) WALL STUDS SIZE AND BE SPACED AT 16" O.C.
2. TYPICAL TRIMMER AND KINGSTUD NOTATION (2)T= 2 TRIMMERS, (2)KS = 2 KING STUDS
3. USE A MINIMUM OF (1) KING STUD ON INTERIOR HEADERS.

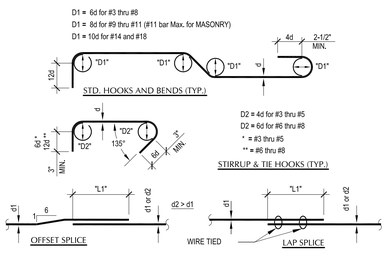
WOOD BEAM AND WOOD COLUMN NOTES:

1. UNLESS NOTED OTHERWISE ALL WOOD BEAMS SHALL BE SUPPORTED BY A MINIMUM OF (2) 2x DF#2 OR BTR.
2. BUILT-UP BEAMS ARE TO BE SPIKING TOGETHER AT EACH LAMINATION (EACH PLY) AS PER THE FOLLOWING:
   6" DEEP: (2) ROWS OF 10d COMMON @ 16"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
   8" DEEP: (3) ROWS OF 10d COMMON @ 16"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
   10" DEEP: (3) ROWS OF 10d COMMON @ 12"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
   12-16" DEEP: (4) ROWS OF 10d COMMON @ 12"O.C. STAGGERED & EQUALLY SPACED & EACH SIDE.
3. ALL COLUMNS ARE TO BE CONTINUOUS FROM BEAM TO FOUNDATION. WOOD COLUMNS MAY BE SPLICED AT FLOOR LOCATIONS PROVIDED THAT SOLID BLOCKING IS INSTALLED TO TRANSFER LOAD AROUND FLOOR JOIST.
4. BUILT-UP COLUMN (MULTIPLE 2x STUDS) ARE TO BE SPIKED TOGETHER AS PER THE FOLLOWING:
   2x4'S: (1) ROW OF 10d COMMON @ 6"O.C. STAGGERED 1" ABOUT CENTERLINE.
   2x6'S: (2) ROWS OF 10d COMMON @ 8"O.C. STAGGERED 1-1/2" FROM EDGES.

MASONRY PIER SCHEDULE

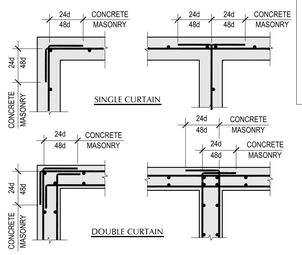
MARK	WIDTH	LENGTH	VERT. REINF.	TIE SETS	NOTES
MP-1	8"	0'-8"	(2) #5	#2 @ 8" O.C.	SEE DETAIL **D3/SE501.**
MP-2	8"	1'-4"	(4) #5	#2 @ 8" O.C.	SEE DETAIL **D3/SE501.**

1. SOLID GROUT ALL CELLS, TYPICAL.
2. COLUMN TIES:
   A. SINGLE BLOCK COLUMNS: PLACE TIES WITHIN THE MORTAR JOINT, UNO.
   B. MULTI WIDE BLOCK COLUMNS: PLACE TIES INSIDE OF FACE SHELLS 2" ABOVE OR BELOW MORTAR JOINTS. USE "H" BLOCK and/or NOTCH WEB MEMBERS AS REQUIRED.
   C. ADD (2) SETS OF TIES INSIDE THE FACE SHELLS AT THE TOP OF ALL COLUMNS TO ENCLOSE ANCHOR BOLTS, STUDS OR DBA'S WHEN THEY OCCUR. USE SAME TIE SIZE AS SCHEDULE, UNO.
3. REMOVE BACK-TO-BACK FACE SHELLS. ALTERNATE REMOVED FACE SHELLS, COURSE BY COURSE.
4. DOWEL VERTICAL PIER REINFORCEMENT TO STRUCTURE BELOW WITH MATCHING BARS. EXTEND VERTICAL REINFORCEMENT TO FOOTING. IF FOUNDATION WALL EXTENDS ABOVE FLOOR SLAB, ADD PIER TIES IN FOUNDATION WALL FROM FLOOR SLAB TO MASONRY PIER.
5. FOR BAR LAP OR SPLICE LENGTHS SEE THE GENERAL STRUCTURAL NOTES, SHEET **S1.0**.
6. DO NOT ALLOW PENETRATIONS THRU THE COLUMN.
7. HORIZONTAL WALL STEEL:
   A. AT PIERS WITHIN THE WALL, RUN HORIZONTAL WALL STEEL THRU THE COLUMN.
   B. AT PIERS AT THE END OF THE WALL OR AT WALL OPENINGS, RUN HORIZONTAL WALL STEEL THRU COLUMN TO THE FAR FACE OF PIER AND TERMINATE WITH A STD. HOOK.

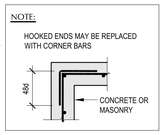


MARK	WALL TYPE	LAP LENGTH	MIN. LAP LENGTH
L1	CONCRETE	30d2 for 40 GRADE	2'-0"
L1	CONCRETE	40d2 for 60 GRADE	2'-0"
L1	MASONRY	48d2	2'-0"

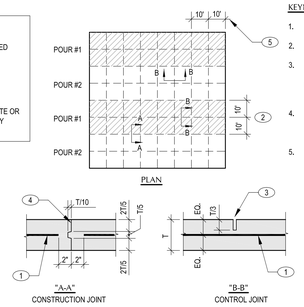
E1 SE501 TYPICAL HOOKS & BENDS
NO SCALE



NOTE:
HOOKED ENDS MAY BE REPLACED WITH CORNER BARS



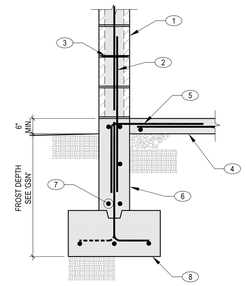
E2 SE501 CONCRETE OR MASONRY WALL CORNER REINF.
NO SCALE



KEYNOTES:

1. SLAB REINFORCING
2. MAX. WIDTH OF POUR = 20'-0"
3. 1/8" FIBERBOARD STRIP, ZIP STRIP, OR SAW CUT. SEE SPECIFICATIONS. AT EXPOSED SLOT WITH SLAB, USE 1/4" JOINT SEALER.
4. FOR SLABS LEFT EXPOSED. PROVIDE 1/4" WIDE SLOT FILLED WITH JOINT SEALER.
5. MAX. LENGTH OF POUR WITHOUT CONTROL JOINT = 10'-0" COORDINATE JOINT LOCATIONS WITH ARCHITECTS REQUIREMENTS

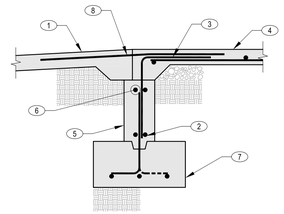
E3 SE501 SLAB ON GRADE JOINT
NO SCALE



KEYNOTES:

1. MASONRY WALL, SEE PLAN
2. DOWELS TO MATCH VERT. REINF. IN MASONRY WALL
3. LADDER-TYPE JOINT REINFORCING, MASONRY WALL SCHEDULE
4. CONCRETE SLAB SEE PLAN, SLAB MAY BE EXISTING
5. #4 DOWELS @ 24"o.c.
6. CONCRETE WALL, SEE PLAN
7. (2) #5 x CONT. TOP & BOTTOM.
8. FOOTING, SEE PLAN AND SCHEDULE FOR SIZE AND REINF.

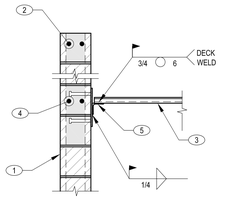
E4 SE501 DETAIL
NO SCALE



KEYNOTES:

1. EXTERIOR SLAB, SEE ARCH
2. (2) #5 CONT. BOTTOM
3. #4 DOWELS @ 24"o.c.
4. CONCRETE SLAB ON GRADE, SEE PLAN
5. CONCRETE FOUNDATION WALL, SEE PLAN
6. (2) #5 EXTEND 2'-0" PAST EDGE OF OPENING, EACH SIDE
7. FOOTING, SEE PLAN AND SCHEDULE FOR SIZE AND REINF.
8. #4x4'-0" LONG DOWELS @ 24"o.c.

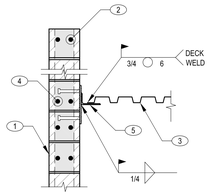
E5 SE501 DETAIL
NO SCALE



KEYNOTES:

1. MASONRY WALL, SEE PLAN
2. (2) #4 BARS CONT. TOP OF WALL
3. ROOF DECK, SEE PLAN
4. (2) #5 BARS CONT. AT DECK BEARING
5. L3x3x1/4" CONT. W/ 3/8x4x10" EMBED PLATE @ 32"o.c. PLATE TO HAVE (2) 3/4"Ø x 5" W.A.S., (ANGLE MAYBE TURNED UP or DOWN)

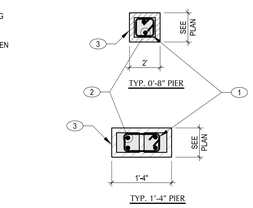
D1 SE501 ROOF DECK - PERPENDICULAR TO WALL
NO SCALE



KEYNOTES:

1. MASONRY WALL, SEE PLAN
2. (2) #4 BARS CONT. TOP OF WALL
3. ROOF DECK, SEE PLAN
4. (2) #5 BARS CONT. AT DECK BEARING
5. L5x3x1/4" (LLH) CONT. W/ 3/8x4x10" EMBED PLATE @ 1/3 POINTS BETWEEN BEAMS. PLATE TO HAVE (2) 3/4"Ø x 5" W.A.S.

D2 SE501 ROOF DECK - PARALLEL TO WALL
NO SCALE



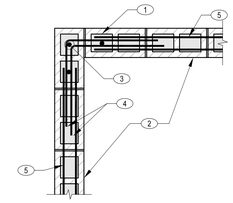
KEYNOTES:

1. CLOSED TIES AS SHOWN. SEE SCHEDULE.
2. VERTICAL BARS WITH MATCHING DOWELS INTO FOOTINGS/FOUNDATION, SEE SCHEDULE.
3. MASONRY PIER, SEE PLAN.

NOTES:

A. PROVIDE OPENED END UNITS TYPICAL AT ALL PIERS.

D3 SE501 MASONRY PIERS
NO SCALE



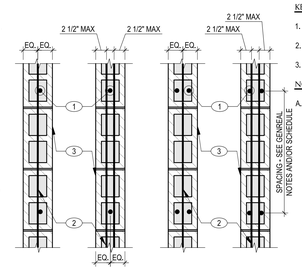
KEYNOTES:

1. GROUT SOLID (3) CELLS AT CORNER, U.N.O.
2. MASONRY WALL, SEE PLAN
3. (3) #5 BARS TYP. @ CORNERS, U.N.O.
4. CORNER BARS TO MATCH SIZE AND SPA. OF HORIZ. REINF. IN WALL. SEE PLAN FOR REINF. IN ALL MASONRY PIERS
5. HORIZ. REINF. SEE SCHEDULE

NOTE:

A. ALL CELLS ARE SHOWN AS FULLY GROUTED. THIS REPRESENTS BOND BEAM CELLS

D4 SE501 MASONRY WALL CORNERS (TYP) - PLAN VIEW
NO SCALE



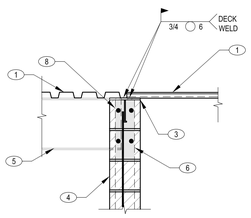
KEYNOTES:

1. VERTICAL REINF., TYP.
2. HORIZONTAL REINF., TYP.
3. MASONRY WALL, SEE PLAN

NOTE:

A. ALL CELLS ARE SHOWN AS FULLY GROUTED. THIS REPRESENTS BOND BEAM CELLS

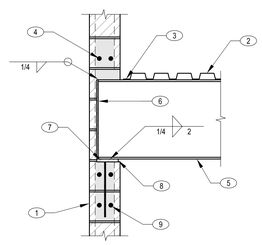
D5 SE501 MASONRY WALLS - PLAN VIEW
NO SCALE



KEYNOTES:

1. ROOF DECK, SEE PLAN
2. NOT USED
3. 3/8"x7 1/2"xCONT. PLATE w/ 3/4"Ø x 8" W.A.S. @ 32" O.C.
4. MASONRY WALL, SEE PLAN
5. STEEL BEAM BEYOND, SEE DETAIL **C2/SE501** FOR CONNECTION TO WALL
6. GROUT SOLID FOR (2) FULL COURSES (16" MIN.) BELOW JOISTS. REINF. WITH (2) #5 x CONT. TOP AND BOTTOM TYP. UNO.

C1 SE501 DETAIL
NO SCALE



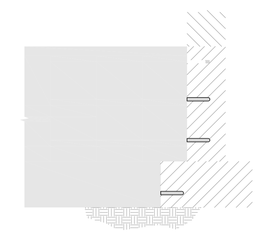
KEYNOTES:

1. MASONRY WALL, SEE PLAN
2. ROOF DECK, SEE PLAN
3. SEE DETAIL **D2/SE501** FOR DECK CONNECTION
4. (2) #5 BARS CONT. AT DECK BEARING
5. W/ JOIST, SEE PLAN
6. 3/8" WEB STIFFENERS, EACH SIDE
7. BEARING PLATE 5/8x5x12" w/ (2) 3/4"Ø by 12" D.B.A. AT 8" GA.
8. PLACE BEARING PLATE 1/2" MIN. FROM FACE OF MASONRY
9. GROUT SOLID FOR (2) FULL COURSES (16" MIN.) BELOW JOISTS. REINF. WITH (2) #5 x CONT. TOP AND BOTTOM TYP. U.N.O.

NOTES:

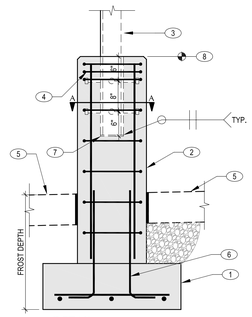
A. VERTICAL WALL REINFORCING NOT SHOWN.
B. GROUT BEAM POCKET SOLID AFTER ERECTION.

C2 SE501 WF JOIST @ MASONRY WALL
NO SCALE



C3 SE501 DETAIL
NO SCALE

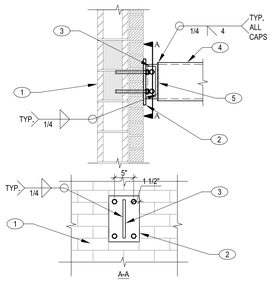
C4 SE501 DETAIL
NO SCALE



KEYNOTES:

1. CONCRETE FOOTING, SEE PLAN
2. 18" Ø CONCRETE PIER W/ (4) # 8 BARS & #3 STIRRUPS AT 8" O.C.
3. STEEL COLUMN SEE PLANS, PROVIDE (8) 3/4"Ø HEADED STUDS 4" LONG WELDED TO COLUMN
4. (3) #3 STURRUPS @ 2" O.C. IN TOP 8"
5. EXTERIOR CONCRETE SEE ARCH.
6. HOOKED BARS MATCHING PIER REINFORCING
7. 5/16 CAP PLATE
8. ELEVATION OF CONCRETE COLUMN SEE ARCH

C5 SE501 DETAIL
NO SCALE



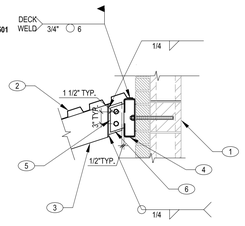
KEYNOTES:

1. (E) MASONRY WALL
2. 5/8" THICK STEEL PLATE WITH (4) 3/4" ANCHOR BOLTS. SEE DETAIL **E1, E2,E4/SE502**
3. 3/8" SHEAR TAB, SEE DETAIL **B2/SE501** WITH (2) 3/4"Ø BOLTS
4. HSS BEAM, SEE PLANS
5. 1/4" CAP PLATE WITH 3/8x3-1/2x6" SHEAR TAB.

NOTES:

AT SIM, MASONRY WALL IS NEW. USE HEADED STUDS INSTEAD OF DRILL AND EPOXY BOLTS IN KEY NOTE 2

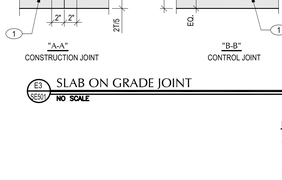
S1 SE501 DETAIL
NO SCALE



KEYNOTES:

1. (E) MASONRY WALL
2. 5/8" THICK STEEL PLATE WITH (4) 3/4" ANCHOR BOLTS. SEE DETAIL **E1, E2,E4/SE502**
3. 3/8" SHEAR TAB, SEE DETAIL **B2/SE501** WITH (2) 3/4"Ø BOLTS
4. HSS BEAM, SEE PLANS
5. 10x3x1/4" HSS TUBE WITH 3/4"Ø BOLTS @ 24"O.C. SEE DETAILS E1,E2 & E4/SE502 IF BOLTS ARE INSTALLED IN HOLLOW CELLS. REDUCE SPACING 12"O.C. AND USE SCREEN TUBES.
5. 1/4" CAP PLATE WITH 3/8x3-1/2x6" SHEAR TAB
6. 3/8x3-1/2x7" SHEAR TAB WITH (2) 3/4"Ø BOLTS.

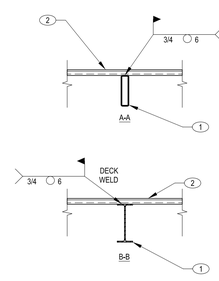
S2 SE501 DETAIL
NO SCALE



KEYNOTES:

1. STEEL BEAM, SEE PLANS
2. STEEL DECK, SEE PLANS
3. HSS BEAM, SEE PLANS
4. 1/4" CAP PLATE WITH 3/8x3-1/2x6"
5. HSS BEAM, SEE PLANS
6. SHEAR TAB SIZE AND BOLTS, SEE DETAIL B2/SE501.

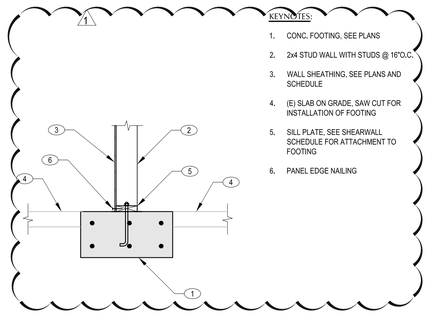
S3 SE501 DETAIL
NO SCALE



KEYNOTES:

1. STEEL BEAM, SEE PLANS
2. STEEL DECK, SEE PLANS

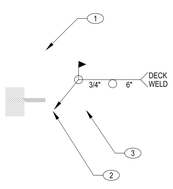
S4 SE501 DETAIL
NO SCALE



KEYNOTES:

1. CONC. FOOTING, SEE PLANS
2. 2x4 STUD WALL WITH STUDS @ 16"O.C.
3. WALL SHEATHING, SEE PLANS AND SCHEDULE
4. (E) SLAB ON GRADE, SAW CUT FOR INSTALLATION OF FOOTING
5. SILL PLATE, SEE SHEARWALL SCHEDULE FOR ATTACHMENT TO FOOTING
6. PANEL EDGE NAILING

S5 SE501 DETAIL
NO SCALE



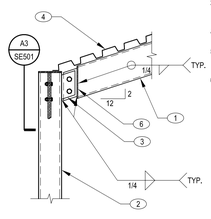
KEYNOTES:

1. (E) MASONRY WALL
2. L5x3x1/4" STEEL ANGLE (LLV) WITH 3/4"Ø DRILL AND EPOXY ANCHORS. SEE DETAILS E1, E2 & E4/SE501. ANGLE LEG MAY BE UP OR DOWN
3. STEEL DECK, SEE PLANS

NOTE:

A. AT SIM DECK PLANS OPPOSITE DIRECTION

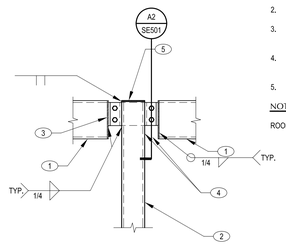
A1 SE501 DETAILS
NO SCALE



KEYNOTES:

1. HSS BEAM, SEE PLANS
2. STEEL COLUMN, SEE PLANS
3. 3/8" THICK SHEAR TAB WITH (2) 3/4"Ø BOLTS, SEE DETAIL B2/SE501
4. STEEL DECK, SEE PLANS
5. SHEAR TAB, SEE DETAIL A3/SE501 WITH 3/8x3-1/2x7" SHEAR TAB
6. 1/4" CAP PLATE

A2 SE501 DETAIL
NO SCALE



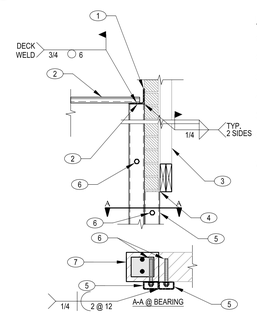
KEYNOTES:

1. HSS BEAM, SEE PLANS
2. STEEL COLUMN, SEE PLANS
3. 1/4" CAP PLATE WITH 3/8"x7"x3-1/2" SHEAR TAB
4. 3/8" SHEAR TAB WITH (2) 3/4"Ø BOLTS, SEE DETAIL B2/SE501.
5. 1/8" CAP PLATE

NOTES:

ROOF DECK NOT SHOWN

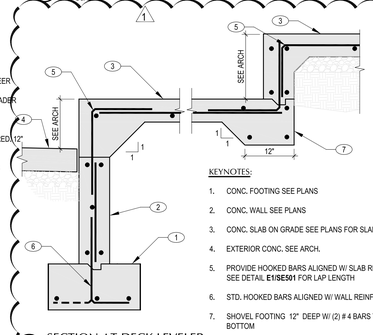
A3 SE501 DETAIL
NO SCALE



KEYNOTES:

1. STEEL ANGLE, SEE PLANS
2. STEEL DECK, SEE PLANS
3. (E) STUD WALL WITH BRICK VENEER
4. (E) STEEL LINTEL AND WOOD HEADER
5. HSS TUBE COLUMN, SEE PLANS
6. 5/8"Ø BOLTS @ 24"O.C. STAGGERED 12", SEE DETAIL E1, E2, E4/SE502.
7. NEW MASONRY PIER SEE PLANS

A4 SE501 DETAIL
NO SCALE



KEYNOTES:

1. CONC. FOOTING SEE PLANS
2. CONC. WALL SEE PLANS
3. CONC. SLAB ON GRADE SEE PLANS FOR SLAB REINF.
4. EXTERIOR CONC. SEE ARCH.
5. PROVIDE HOOKED BARS ALIGNED W/ SLAB REINFORCING. SEE DETAIL **E1/SE501** FOR LAP LENGTH
6. STD. HOOKED BARS ALIGNED W/ WALL REINF.
7. SHOVEL FOOTING 12" DEEP W/ (2) # 4 BARS TOP AND BOTTOM

A5 SE501 SECTION AT DECK LEVELER
NO SCALE

GENERAL NOTES:

KEY NOTES:

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wca@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

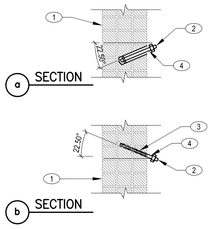
DATE/REVISION	PROJECT #.
1 · 8 · 09	08008

REGISTERED PROFESSIONAL ENGINEER No.189660 CLIFF R. COLE STATE OF UTAH

STRUCTURAL DETAILS

SE 501

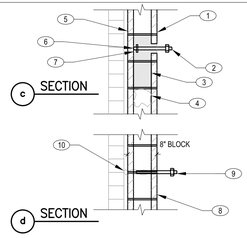
CONTRACTOR NOTE:
CORE DRILL 1"ø HOLE. USE OF IMPACT EQUIPMENT IS NOT ALLOWED. INSTALL AND TEST 3/4"ø SAE 1018 THREADED ANCHOR BOLT PER MANUFACTURERS INSTRUCTIONS. CONTINUOUS INSPECTION IS REQUIRED.



KEYNOTES:

1. UN-REINFORCED MASONRY, MULTI WYTHE WALL
2. 3/4" Ø SAE 1018 THREADED ROD ANCHOR BOLT
3. SCREEN TUBE IN 1" Ø HOLE
4. BEVELED WASHER. REQ'D (NOT SHOWN) OR PRE-BENT ANCHOR BOLTS

CONTRACTOR NOTE:
CORE DRILL 1"ø HOLE. USE OF IMPACT EQUIPMENT IS NOT ALLOWED. INSTALL AND TEST 3/4"ø SAE 1018 THREADED ANCHOR BOLT PER MANUFACTURERS INSTRUCTIONS. CONTINUOUS INSPECTION IS REQUIRED.



KEYNOTES:

1. IF EMBED CANNOT BE OBTAINED OR THINNER THAN 8" BLOCK , SEE UN-REINFORCED MASONRY ANCHOR BOLT NOTE
2. BOLT LOCATED IN CENTER OF BLOCK
3. GROUT CELL BENEATH BOLT
4. PAPER DAM
5. UN-REINFORCED MASONRY WALL, CMU WALL
6. 3/4" THREADED ANCHOR BOLT
7. 1/2" BETWEEN INTERIOR FACE SHELL AND WASHER.
8. 8" BLOCK & THICKER OTHERWISE SEE UN-REINFORCED MASONRY ANCHOR BOLT NOTE.
9. 3/4" Ø SAE 1018 THREADED ROD ANCHOR BOLT
10. SCREEN TUBE IN 1" Ø HOLE

UN-REINFORCED MASONRY ANCHOR BOLT NOTE

ANCHOR BOLTS INTO MULTI-WYTHE WALL:
DRILL A 2.5" DIAMETER HOLE W/ 8" MINIMUM EMBEDMENT DEPTH. DRILL HOLE AT AN ANGLE OF 22.5 DEGREES TO THE HORIZONTAL. DO NOT USE IMPACT TOOLS FOR DRILLING HOLES OR TIGHTENING ANCHORS AND NUTS. PLACE A 2" DIAMETER by 1/4 PLATE WASHER TIGHT AGAINST THE BOLT HEAD AND INSTALL BOLT HEAD AND WASHER INTO THE HOLE HEAD FIRST WITH THE BOLT THREADS STICKING OUTSIDE THE WALL (OPTION: USE HEADED ANCHOR). CENTER BOLT IN HOLE AND FILL WITH DRY-PACK OR NON-SHRINK GROUT (F'c= 4000 psi MINIMUM). DRY-PACK/GROUT MUST BE WET ENOUGH TO DEVELOP GOOD BOND TO THE MASONRY. SEE DETAIL E1b/SE502.

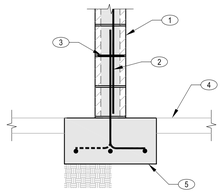
ANCHOR BOLTS INTO CMU (BLOCK):
DRILL A 2.5" DIAMETER HOLE & EMBEDMENT AS SHOWN. DO NOT USE IMPACT TOOLS FOR DRILLING HOLES OR TIGHTENING ANCHORS AND NUTS. PLACE A 2" DIAMETER by 1/4 PLATE WASHER TIGHT AGAINST THE BOLT HEAD AND INSTALL BOLT HEAD AND WASHER INTO THE HOLE HEAD FIRST WITH THE BOLT THREADS STICKING OUTSIDE THE WALL (OPTION: USE HEADED ANCHOR). CENTER BOLT IN HOLE AND FILL WITH DRY-PACK OR NON-SHRINK GROUT (F'c= 4000 psi MINIMUM). DRY-PACK/GROUT MUST BE WET ENOUGH TO DEVELOP GOOD BOND TO THE MASONRY. PAPER DAM MASONRY CELL BELOW. SEE DETAIL E2c/SU5.0. IF THINNER THAN 8" BLOCK, SEE EOR.

OPTION: USE HILTI HIT RENOVATION ANCHORS OR EQUAL SEE DETAIL E2d/SU5.0. IF THINNER THAN 8" BLOCK SEE EOR.

EMBEDMENT OF ADHESIVE ANCHORS

BASE MATERIAL	REBAR DOWELS	THREADED ROD Ø	EMBEDMENT LENGTH	SCREEN LENGTH
CONCRETE	#3	3/8"	5"	--
	#4	1/2"	6"	--
	#5	5/8"	8"	--
	#6	3/4"	10"	--
	#7	7/8"	12"	--
CMU (GROUTED)	#3	3/8"	4"	--
	#4	1/2"	5"	--
	#5	5/8"	6"	--
	#6	3/4"	7"	--
CMU (HOLLOW)	#3	3/8"	--	4"
	#4	1/2"	--	5"
	#5	5/8"	--	6"
	#6	3/4"	--	7"

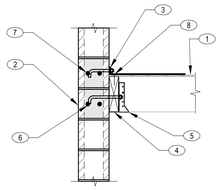
NOTES:
1. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
2. EMBEDMENT LENGTH IS INTO STRUCTURE AND NOT VENEER, UNO.
3. REBAR SHALL BE DEFORMED.
4. MINIMUM WALL THICKNESS TO BE EMBEDMENT LENGTH PLUS 1-1/2" OTHERWISE SEE STRUCTURAL ENGINEER.
5. URM WALL TO USE SCREENS AND TO BE EMBEDED IN MORTAR JOINT UNO.
6. USE HILTI HY20 EPOXY FOR BOLTS INTO UN-REINFORCED MASONRY FACE SHELLS
7. USE HILTI HY150 EPOXY FOR BOLTS INTO CONCRETE AND GROUT FILLED BLOCK.
8. ONLY USE CMU HOLLOW IF CALLED OUT SPECIFICALLY IN DETAIL.



KEYNOTES:

1. MASONRY WALL, SEE PLAN
2. DOWELS TO MATCH VERT. REINF. IN MASONRY WALL
3. LADDER-TYPE JOINT REINFORCING, MASONRY WALL SCHEDULE
4. (E) CONCRETE SLAB, CUT AND REMOVE SLAB AS REQ'D. FOR INSTALLATION OF FOOTING.
5. FOOTING, SEE PLAN AND SCHEDULE FOR SIZE AND REINF.

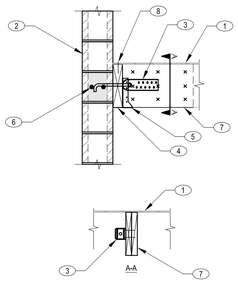
E1 ANCHOR BOLT IN MULTI- WYTHE WALL
SE502 NO SCALE



KEYNOTES:

1. (E) ROOF SHEATHING
2. MASONRY WALL, SEE PLANS
3. SIMPSON LTT19 @ 48"O.C. WITH 3/4"Ø ANCHOR BOLTS.
4. 3x10 LEDGER WITH 3/4"Ø BOLTS @ 12"O.C.
5. SIMPSON LU210 HANGER ON (E) JOISTS
6. (2) #5 BARS CONT. @ DECK BEARING
7. (2) #5 BARS CONT. @ OUT OF PLANE ANCHOR
8. PANEL BOUNDARY NAILING, 10d @ 4"O.C. U.N.O.

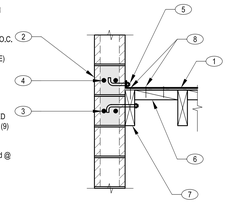
E2 ANCHOR BOLT IN HOLLOW MASONRY
SE502 NO SCALE



KEYNOTES:

1. (E) FLOOR SHEATHING
2. MASONRY WALL, SEE PLANS
3. SIMPSON PHD2 @ 48"O.C. WITH 5/8"Ø ANCHOR BOLTS
4. 3x12 LEDGER WITH 3/4"Ø @ 12"O.C.
5. SIMPSON U210-2 HANGER ON (E) JOIST
6. (2) #5 BARS CONT. @ DECK BEARING
7. 2x12 BLOCKING 24" LONG GLUED AND NAILED TO (E) JOIST WITH (9) 16d NAILS
8. PANEL BOUNDARY NAILING, 10d @ 4"O.C. U.N.O.

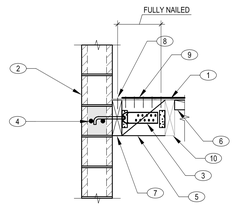
E3 UN-REINFORCED MASONRY ANCHOR BOLT NOTE
SE502 NO SCALE



KEYNOTES:

1. (E) ROOF SHEATHING
2. MASONRY WALL, SEE PLANS
3. (2) #5 @ DECK BEARING
4. (2) #5 @ OUT OF PLANE ANCHOR
5. SIMPSON LTT131 @ 48"O.C. WITH 5/8"Ø ANCHOR BOLTS
6. 3x4 FLAT BLOCKING BELOW STEEL STRAP
7. 3x10 LEDGER WITH 3/4"Ø ANCHOR BOLTS @ 16"O.C.
8. PANEL BOUNDARY NAILING, 10d @ 4"O.C. U.N.O.

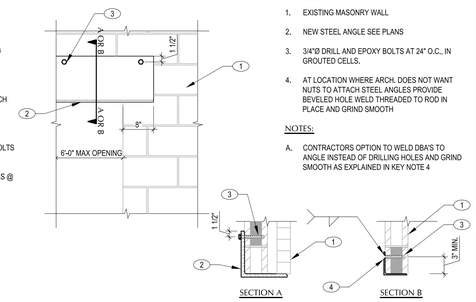
E4 EMBEDMENT SCHEDULE
SE502 NO SCALE



KEYNOTES:

1. (E) FLOOR SHEATHING
2. MASONRY WALL, SEE PLANS
3. SIMPSON PHD2 @ 48"O.C. WITH 5/8"Ø ANCHOR BOLTS
4. (2) #5
5. 3x12 BLOCK WITH SIMPSON LSS0 EACH END
6. 3x FLAT BLOCKING
7. 3x12 LEDGER WITH 3/4"Ø ANCHOR BOLTS @ 16"O.C.
8. PANEL BOUNDARY NAILING, 10d NAILS @ 4"O.C. U.N.O.
9. SIMPSON CMST16 STRAP 6' LONG
10. (E) FLOOR JOIST

E5 DETAIL
SE502 NO SCALE



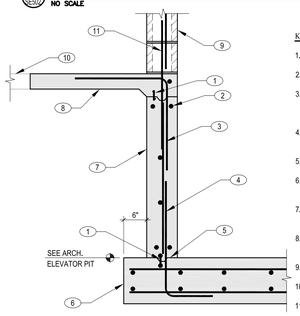
KEYNOTES:

1. EXISTING MASONRY WALL
2. NEW STEEL ANGLE SEE PLANS
3. 3/4"Ø DRILL AND EPOXY BOLTS AT 24" O.C., IN GROUTED CELLS.
4. AT LOCATION WHERE ARCH. DOES NOT WANT NUTS TO ATTACH STEEL ANGLES PROVIDE BEVELED HOLE WELD THREADED TO ROD IN PLACE AND GRIND SMOOTH

NOTES:

A. CONTRACTORS OPTION TO WELD DBA'S TO ANGLE INSTEAD OF DRILLING HOLES AND GRIND SMOOTH AS EXPLAINED IN KEY NOTE 4

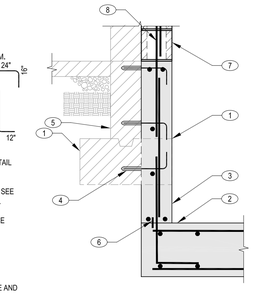
D1 DETAIL
SE502 NO SCALE



KEYNOTES:

1. WATER STOP.
2. (2) #5 CONT. TOP AND BOTTOM.
3. #4 DOWELS @ 12" O.C.
4. #4 DOWELS @ 12" O.C.
5. KEY WAY, OPTIONAL.
6. CONCRETE FOOTING SEE DETAIL C2/SE502.
7. 8" or WIDER CONCRETE WALL SEE PLANS FOR REINFORCEMENT.
8. TYPICAL CONCRETE SLAB, SEE PLAN.
9. MASONRY WALL, SEE PLANS
10. (E) SLAB-ON-GRADE.
11. VERT. DOWEL MATCHING SIZE AND SPACING OF MASONRY WALL REINF.

D2 DETAIL
SE502 NO SCALE



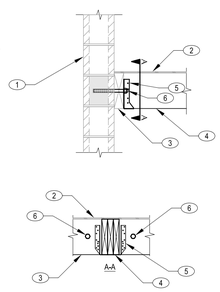
KEYNOTES:

1. (E) FOOTING SAW CUT FLUSH WITH CONCRETE WALL.
2. (N) CONCRETE FOOTING 12" THICK W/ #4 @ 12" O.C. TOP & BOT. BOTH WAYS.
3. 8" or WIDER CONCRETE WALL W/ (2) #5 BARS TOP AND BOTTOM. #4 BARS AT 12"O.C. E.W.
4. 8 # 4 DRILL AND EPOXY DOWELS AT 12" O.C. E.W. W/ 5" EMBEDMENT.
5. (E) CONCRETE FOUNDATION WALL.
6. WATER STOP.
7. MASONRY WALL SEE PLANS
8. VERT. DOWEL MATCHING SIZE AND SPACING OF MASONRY WALL REINF.

NOTES:

A. UNDERPIN EXISTING FOOTING IN 4' SECTIONS MAXIMUM. UNLESS APPROVED OTHERWISE BY EOR OR GEOTECHNICAL ENGINEER.

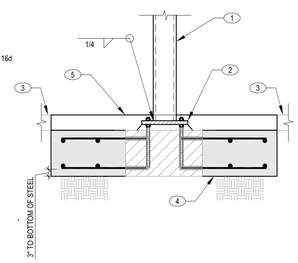
D3 DETAIL
SE502 NO SCALE



KEYNOTES:

1. (E) MASONRY WALL
2. (E) ROOF SHEATHING
3. (E) LEDGER
4. BEAM, SEE PLAN
5. SIMPSON HU610 HANGER WITH (18) 16d NAILS
6. 3/4"Ø DRILL AND EPOXY BOLT, SEE DETAIL E1, E2, E4/SE502.

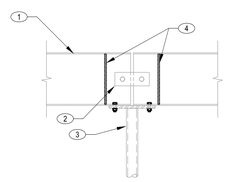
D4 DETAIL
SE502 NO SCALE



KEYNOTES:

1. STEEL COLUMN, SEE PLAN
2. 3/4" BASE PLATE COL. WIDTH + 6" x COL. DEPTH + 6" WITH (4) 3/4"Ø ANCHOR RODS ON 1-1/2" NON SHRINK GROUT WITH LEVELING NUTS. USE DRILL AND EPOXY BOLTS W/ 8" EMBEDMENT AT EXISTING FOOTINGS.
3. (E) CONCRETE SLAB ON GRADE. SAW CUT SIZE OF REQ'D. FOOTING. REPLACE SLAB AFTER INSTALLATION OF COLUMN
4. FOOTING, SEE PLAN AND SCHEDULE FOR SIZE AND REINF.

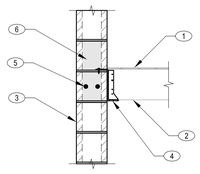
D5 STEEL BEAM AT STEEL COLUMN
SE502 NO SCALE



KEYNOTES:

1. (E) STEEL BEAM
2. (E) TIE PLATE
3. (E) COLUMN AND CAP PLATE
4. (N) 3/8" WEB STIFFENERS EACH SIDE OF BEAM IF POSSIBLE. IF NOT A MIN. OF ONE SIDE.

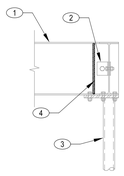
C1 DETAIL
SE502 NO SCALE



KEYNOTES:

1. (E) ROOF SHEATHING
2. (E) ROOF JOIST
3. MASONRY WALL, SEE PLANS
4. SIMPSON WMU HANGER INSTALL PER MFR.
5. (2) #5 @ ROOF BEARING
6. GROUT SOLID AFTER INSTALLATION OF HANGER

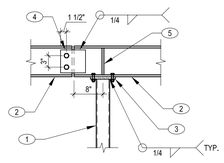
C2 DETAIL
SE502 NO SCALE



KEYNOTES:

1. (E) STEEL BEAM
2. (E) TIE PLATE
3. (E) COLUMN AND CAP PLATE
4. (N) 3/8" WEB STIFFENERS EACH SIDE OF BEAM IF POSSIBLE. IF NOT A MIN. OF ONE SIDE.

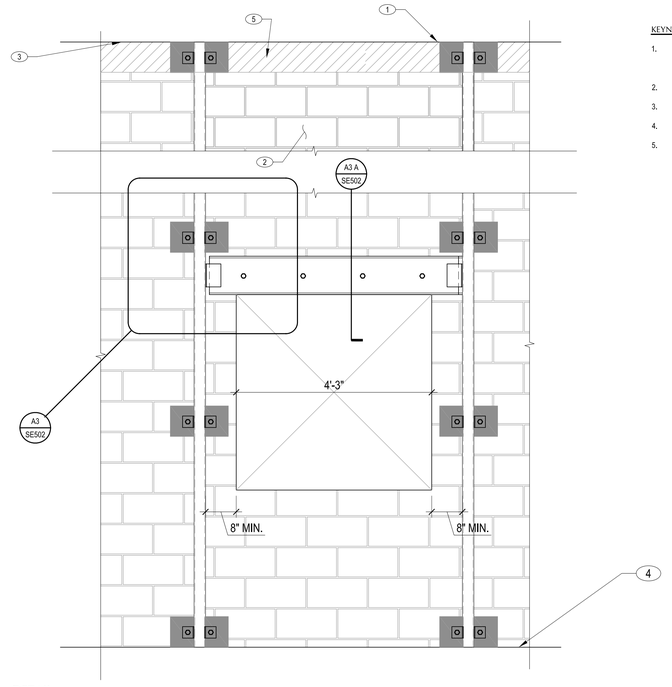
C3 DETAIL
SE502 NO SCALE



KEYNOTES:

1. STEEL COLUMN, SEE PLANS
2. STEEL BEAM, SEE PLANS
3. 5/8"xCOL. WIDTH + 6"x BEAM WIDTH +1" OR COL. WIDTH +1" WHICH EVER IS GREATER WITH (4) 3/4"Ø BOLTS
4. 3/8x6-1/2x6" PLATE WITH (2) 3/4" BOLTS.
5. 3/8" WEB STIFFENER EACH SIDE

C4 DETAIL
SE502 NO SCALE

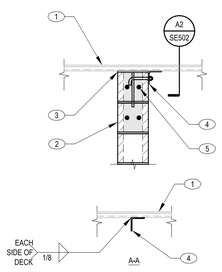


KEYNOTES:

1. GROUT SOLID CELL IF NOT, HALF SPACING AND PROVIDE SCREEN TUBES, SEE DETAILS E1, E2, E4/SE502
2. (E) CMU WALL
3. DECK BEARING
4. FLOOR SLAB
5. BOND BEAM AT TOP OF WALL

C5 DETAIL
SE502 NO SCALE

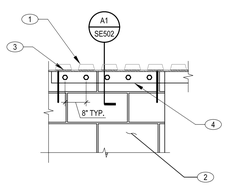
B1 DETAIL
SE502 NO SCALE



KEYNOTES:

1. (E) STEEL DECK
2. MASONRY WALL, SEE PLANS
3. 5/16x8"xCONT. STEEL PLATE WITH 5/8"Ø D.B.A. 12" LONG @ 32"O.C.
4. STEEL ANGLE DRAG, SEE PLANS FOR SIZE AND LAP ONTO MASONRY WALL, SEE DETAIL A2/SE501
5. (4) #5 BARS @ TOP OF WALL. REMOVE FACE SHELL AS REQ'D. TO GROUT TOP COURSE.

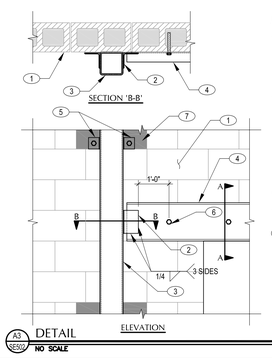
B2 DETAIL
SE502 NO SCALE



KEYNOTES:

1. (E) STEEL DECK
2. MASONRY WALL, SEE PLANS
3. 5/16x8"xCONT. STEEL PLATE WITH 5/8"Ø D.B.A. 12" LONG @ 32"O.C.
4. STEEL ANGLE WITH (5) 3/4"Ø ANCHOR BOLTS, SEE PLANS FOR SIZE

B3 DETAIL
SE502 NO SCALE



KEYNOTES:

1. EXISTING CMU WALL.
2. L 4x4x1/4 x 6" LONG.
3. STEEL COLUMN, SEE PLAN.
4. STEEL CHANNEL SEE PLANS, W/ 3/4"Ø DRILL & EPOXY ANCHORS @ 48" O.C. MAX. PROVIDE ANCHORS IN SOLID GROUTED CELLS. IF NO GROUTED CELLS FOUND, PROVIDE 5/8"Ø DRILL & EPOXY ANCHORS @ 16" O.C. W/ SCREEN TUBE.
5. L 3x3x1/4" SIDE CLIP W/ (1) 3/4"Ø @ TOP & BOTTOM OF WALL & @ 48" O.C.
6. ANCHOR REQ'D @ THIS LOCATION.
7. SOLID GROUT CELLS.

A1 DETAILS
SE502 NO SCALE

A2 DETAIL
SE502 NO SCALE

A3 DETAIL
SE502 NO SCALE

A4 DETAIL
SE502 NO SCALE

GENERAL NOTES:

KEY NOTES:

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wca@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

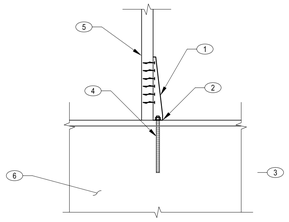
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 17 · 08	08008

REGISTERED PROFESSIONAL ENGINEER No.189660 CLIFF R. COLE STATE OF UTAH

STRUCTURAL DETAILS

SE 502



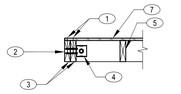
KEYNOTES:

1. HOLDOWN, SEE SHEAR WALL PLAN AND SCHEDULE.
2. ELEVATE HOLDOWN OFF SILL PLATE AND TIGHTEN NUT. (WHERE REQ'D INSTALL PER SIMPSON.)
3. NOT USED
4. THREADED ROD SEE HOLD DOWN SCHEDULE AND DETAIL **E4/SE502.**
5. POST AT WALL ENDS OR ADJACENT TO OPENING, UNO, TYPICAL, SEE SHEAR WALL SCHEDULE FOR MIN. SIZE. SEE DETAIL **E2/SE503** FOR TOP VIEW.
6. (E) FOOTING OR FOUNDATION WALL.

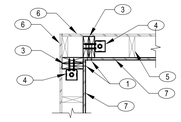
NOTES:

A. AT SIM. SECTION OCCURS @ NEW FOOTING, PROVIDE THREADED ROD WITH 3x3x3/16" WASHER AND NUT TOP AND BOTTOM.

E1 SE502 DETAIL
NO SCALE



SHEATHING AT END WALL



SHEATHING AT OUTSIDE WALL CORNER

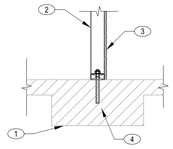
KEYNOTES:

1. REQ'D PANEL EDGE NAILING, SEE SHEAR WALL SCHEDULE (REQ'D AT ALL HOLDOWN STUDS)
2. END OF WALL
3. HOLDOWN STUDS GLUED AND NAILED PER HOLDOWN SCHEDULE NOTES
4. SIMPSON HOLDOWN, SEE PLANS AND SCHEDULE, SEE DETAIL D5/SE503 FOR ELEVATION VIEW OF HOLDOWN
5. (E) WALL STUDS
6. EXISTING WALL SHEATHING
7. NEW WALL SHEATHING WHERE OCCURS SEE PLANS AND SCHEDULE

NOTES:

A. ALL NAILS TO BE COMMON NAILS, REFER TO GSN

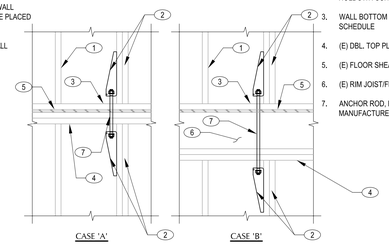
E2 SE502 DETAIL
NO SCALE



KEYNOTES:

1. (E) CONCRETE FOOTING
2. (E) WALL STUDS.
3. WALL SHEATHING, SEE SHEAR WALL SCHEDULE , (SHEATHING MAY BE PLACED ON EITHER SIDE OF WALL)
4. ANCHOR BOLTS, SEE SHEAR WALL SCHEDULE.

E3 SE502 DETAIL
NO SCALE

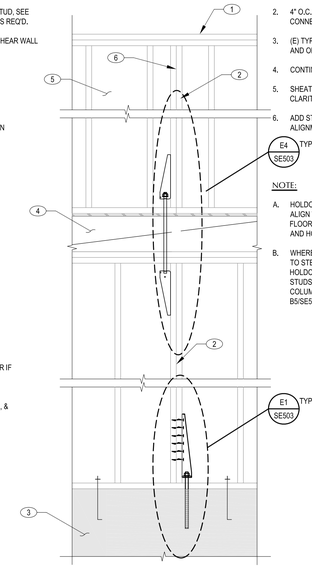


CASE 'A' CASE 'B'

KEYNOTES:

1. (E) WALL STUDS, SEE FRAMING NOTES
2. HOLDOWN AND HOLDOWN STUD, SEE HOLDOWN SCHEDULE ADD AS REQ'D.
3. WALL BOTTOM PLATE, SEE SHEAR WALL SCHEDULE
4. (E) DBL. TOP PLATE
5. (E) FLOOR SHEATHING
6. (E) RIM JOIST/FLOOR JOIST
7. ANCHOR ROD, PER HOLDOWN MANUFACTURER

E4 SE502 DETAIL
NO SCALE



KEYNOTES:

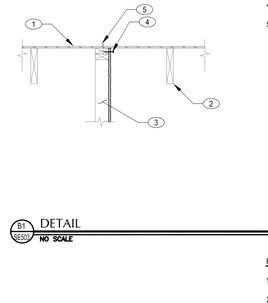
1. ROOF FRAMING NOT SHOWN.
2. 4" O.C. NAILING ALONG BOTH STUDS CONNECTED TO HOLDOWNS, TYP.
3. (E) TYPICAL CONCRETE FOUNDATION AND OR FOOTING.
4. CONTINUOUS RIM JOIST.
5. SHEATHING NOT SHOWN FOR CLARITY.
6. ADD STUDS REQ'D FOR HOLDOWN ALIGNMENT.

NOTE:

A. HOLDOWNS ON UPPER FLOOR MUST ALIGN WITH HOLDOWNS ON LOWER FLOOR AS SHOWN ON NEW STUDS AND HOLDOWNS MUST BE ADDED.

B. WHERE END STUDS ARE ATTACHED TO STEEL COLUMN, LOWER HOLDOWN NOT REQ'D., BUT END STUDS MUST BE BOLTED TO STEEL COLUMN ACCORDING TO DETAIL B5/SE503

E5 SE502 DETAIL
NO SCALE

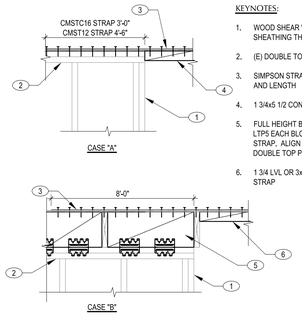


VIEW A-A

KEYNOTES:

1. (E) MASONRY WALL
2. (E) 3x LEDGER
3. SIMPSON STRAPS SEE PLANS FOR SIZE AND LENGTH
4. 3x8 BLOCK WITH (2) SIMPSON LSS90 EACH BLOCK FOR LENGTH OF STRAP
5. ADD (2) 3/4"Ø ANCHOR BOLTS EACH JOIST SPACE FOR LENGTH OF STRAP
6. (E) WOOD JOIST

D1 SE502 DETAIL
NO SCALE



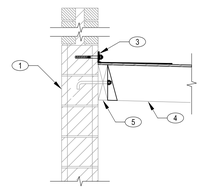
CASE "A"

CASE "B"

KEYNOTES:

1. WOOD SHEAR WALL SEE PLANS FOR SHEATHING THICKNESS
2. (E) DOUBLE TOP PLATE
3. SIMPSON STRAP SEE PLANS FOR SIZE AND LENGTH
4. 1 3/4x5 1/2 CONT. LVL
5. FULL HEIGHT BLOCKING W/ (2) SIMPSON LTP5 EACH BLOCK FOR LENGTH OF STRAP. ALIGN BLOCK WITH EDGE OF DOUBLE TOP PLATE.
6. 1 3/4 LVL OR 3x FLAT BLOCKING BELOW STRAP

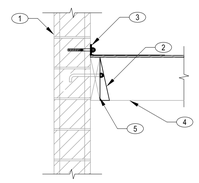
D2 SE502 DETAIL
NO SCALE



KEYNOTES:

1. (E) MASONRY WALL
2. NOT USED
3. SIMPSON LTT19 @ 48"O.C. W/ 3/4"Ø ANCHOR BOLT, SEE DETAILS E1, E2, E4/SE502.
4. (E) ROOF JOIST, PROVIDE SIMPSON LU210 IF NOT PRESENT
5. (E) 3x LEDGER

D3 SE502 DETAIL
NO SCALE



KEYNOTES:

1. (E) MASONRY WALL
2. NEW SIMPSON LU210 JOIST HANGER IF NOT PRESENT.
3. SIMPSON LTT19 @ 48"O.C. W/ 3/4"Ø ANCHOR BOLT, SEE DETAILS E1, E2, & E4/SE502.
4. (E) FLOOR JOIST
5. (E) 3x LEDGER

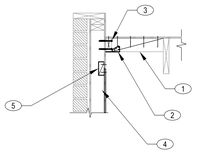
NOTES:

A. CONTRACTORS OPTION TO USE ATTACHMENT SIMILAR TO DETAIL D2/SE502

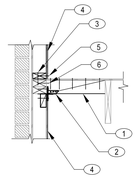
D4 SE502 DETAIL
NO SCALE

KEYNOTES:

1. 3x4 BLOCKING @ 32"O.C. WITH (6) 10d NAILS
2. SIMPSON H4 EACH 3x BLOCK
3. (2) SIMPSON 1/4"x3-1/2" SDS SCREWS @ EACH STUD
4. WALL SHEATHING DOES NOT OCCUR AT ALL LOCATIONS, SEE PLANS AND SHEAR WALL SCHEDULE
5. 2x BLOCKING WITH PANEL EDGE NAILS ONLY OCCURS IF INTERIOR WALL REQUIRES SHEATHING. SEE PLANS AND SCHEDULES



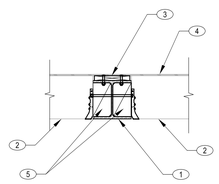
C1 SE502 DETAIL
NO SCALE



KEYNOTES:

1. 3x4 BLOCKING @ 32"O.C. WITH (6) 10d NAILS
2. SIMPSON H2 EACH BLOCK, SLOT SHEATHING FOR INSTALLATION WHERE REQ'D.
3. SILL PLATE NAILING, SEE SHEAR WALL SCHEDULE
4. WALL SHEATHING DOES NOT OCCUR AT ALL LOCATIONS, SEE PLANS AND SHEAR WALL SCHEDULE
5. PANEL EDGE NAILING
6. PANEL BOUNDARY NAILING

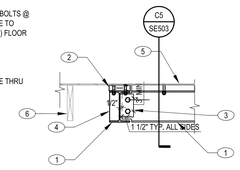
C2 SE502 DETAIL
NO SCALE



KEYNOTES:

1. STEEL BEAM, SEE PLAN
2. (E) FLOOR JOIST. CUT (E) JOISTS FOR INSTALLATION OF BEAM, PROVIDE SIMPSON LU210 JOIST HANGER, INSTALL WITH 16d NAILS.
3. 2x PLATE WITH 5/8" CARRIAGE BOLTS @ 32"O.C., STAGGERED, RIP PLATE TO 1-1/4" THICK. GLUE AND NAIL (E) FLOOR TO PLATE
4. (E) FLOOR SHEATHING
5. PACK WEB SOLID AND PROVIDE THRU BOLTS @ 32"O.C.

D3 SE502 DETAIL
NO SCALE



KEYNOTES:

1. STEEL BEAM, SEE PLAN
2. 2x PLATE WITH CARRIAGE BOLTS @ 32"O.C. STAGGERED.
3. 3/8"x3-1/2" SHEAR TAB WITH (2) 3/4"Ø BOLTS
4. 3/8" WEB STIFFENER
5. (E) FLOOR SHEATHING
6. (E) FLOOR JOISTS

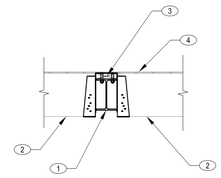
NOTE:

A. COPE BEAM AS REQ'D.

B. (E) DIRECTION OF FLOOR JOIST MAY VARY

C. AT SIM STEEL COLUMN OCCURS SEE DETAIL **B3/SE503**

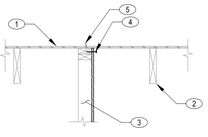
D4 SE502 DETAIL
NO SCALE



KEYNOTES:

1. STEEL BEAM, SEE PLAN
2. (E) FLOOR JOIST, CUT JOISTS FOR INSTALLATION OF BEAM, PROVIDE TOP FLANGE HANGERS @ EACH JOIST. HANGERS SHOULD BE SIMPSON LBV OR EQUAL
3. 2x PLATE WITH 5/8"Ø CARRIAGE BOLTS @ 32"O.C. STAGGERED.
4. (E) FLOOR SHEATHING

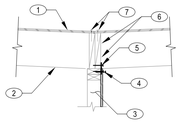
D5 SE502 DETAIL
NO SCALE



KEYNOTES:

1. (E) ROOF SHEATHING.
2. (E) ROOF JOIST
3. (E) INTERIOR STUD WALL. REMOVE GYP. BOARD AND PROVIDE WALL SHEATHING, SEE PLAN AND SCHEDULE.
4. PANEL EDGE NAILING.
5. PANEL BOUNDARY NAILING 10d AT 4" O.C. UNO.

B1 SE503 DETAIL
NO SCALE



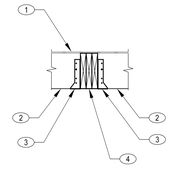
KEYNOTES:

1. (E) ROOF SHEATHING
2. (E) ROOF JOIST
3. (E) INTERIOR STUD WALL. REMOVE GYP. BOARD AND PROVIDE WALL SHEATHING, SHEATHING MAY OCCUR ON BOTH SIDES SEE PLAN AND SCHEDULE.
4. PANEL EDGE NAILING.
5. SIMPSON LTP4 CLIP EACH JOIST SPACING.
6. FULL HEIGHT BLOCKING. PROVIDE IF NOT PRESENT, ALIGN W/ EDGE OF WALL.
7. PANEL BOUNDARY NAILING 10d @ 4" O.C. UNO.

NOTES:

A. IF PLYWOOD OCCURS ON BOTH SIDES PROVIDE WOOD FILLERS AS REQUIRED TO INSTALL CLIPS ON BOTH SIDES.

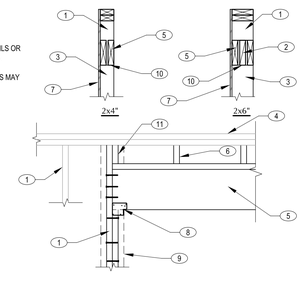
B2 SE503 DETAIL
NO SCALE



KEYNOTES:

1. (E) ROOF SHEATHING
2. (E) ROOF JOISTS
3. SIMPSON LUS210 WITH 16d NAILS OR EQUAL. FACE MOUNT HANGER
4. WOOD BEAM NUMBER OF PLY'S MAY VARY, SEE PLANS

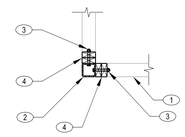
B3 SE503 DETAIL
NO SCALE



KEYNOTES:

1. KING STUDS, SEE FRAMING NOTES FOR REQ'D # OF STUDS
2. 2x6" BLOCK, MIN. 24" O.C.
3. TRIMMER STUD
4. (E) DOUBLE TOP PLATE, SEE TYPICAL DETAIL 3/S6.1
5. HEADER, SEE PLAN (PROVIDE PLYWOOD FILLER AS REQ'D)
6. 2x_ CRIPPLE (AS NEEDED)
7. SHEATHING, SEE PLAN
8. PROVIDE SIMPSON ACE6 OR SIMILAR EA. SIDE OF MEMBER IF NOT SHEATHED
9. TRIMMER, SEE FRAMING NOTES FOR REQ'D # OF STUDS
10. SHIM, AS NEEDED
11. PROVIDE SQUASH BLOCKING ABOVE HEADER WHERE COLUMN EXISTS ABOVE

B4 SE503 DETAIL
NO SCALE



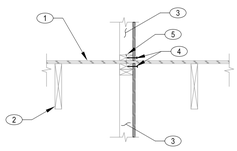
KEYNOTES:

1. (E) STUD WALL
2. HSS COLUMN, SEE PLANS
3. 5/8"Ø BOLTS @ 24"O.C.
4. DOUBLE STUD @ END OF WALL ADD IF NOT PRESENT

NOTES:

A. THE NUMBER AND ORIENTATION OF STUD WALLS CONNECTING TO STEEL COLUMN VARIES DEPENDING ON LOCATION.

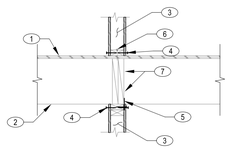
B5 SE503 DETAIL
NO SCALE



KEYNOTES:

1. (E) FLOOR SHEATHING
2. (E) FLOOR JOIST
3. (E) INTERIOR STUD WALL. REMOVE GYP. BOARD AND PROVIDE WALL SHEATHING, SEE PLANS AND SCHEDULE.
4. PANEL EDGE NAILING.
5. VERIFY SILL PLATE NAILING SEE SHEAR WALL SCHEDULE FOR NAILING

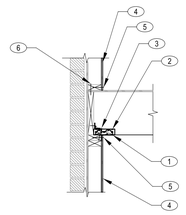
A1 SE503 DETAIL
NO SCALE



KEYNOTES:

1. (E) FLOOR SHEATHING
2. (E) FLOOR JOIST
3. (E) INTERIOR STUD WALL. REMOVE GYP. BOARD AND PROVIDE WALL SHEATHING, SEE PLANS AND SCHEDULE. WALL SHEATHING MAY NOT BE REQ'D. ON BOTH SIDES.
4. PANEL EDGE NAILING
5. SIMPSON LTP4 CLIP EACH JOIST SPACING.
6. VERIFY SILL PLATE NAILING SEE SHEAR WALL SCHEDULE
7. FULL HEIGHT BLOCKING ALIGN WITH EDGE OF WALL

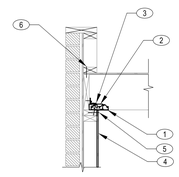
A2 SE503 DETAIL
NO SCALE



KEYNOTES:

1. SIMPSON A35 EACH (E) FLOOR/ROOF JOIST
2. 2x6 BLOCKING WITH SIMPSON LS50 EACH BLOCK
3. (3) 16d NAILS EACH BLOCK INTO DOUBLE TOP PLATE
4. WALL SHEATHING DOES NOT OCCUR AT ALL LOCATIONS, SEE PLANS AND SHEAR WALL SCHEDULE
5. PANEL EDGE NAILING
6. NAILING PER SHEAR WALL SCHEDULE

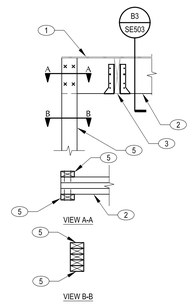
A3 SE503 DETAIL
NO SCALE



KEYNOTES:

1. SIMPSON A35 EACH (E) FLOOR/ROOF JOIST
2. 2x6 BLOCKING WITH SIMPSON LS50 EACH BLOCK
3. (3) 16d NAILS EACH BLOCK INTO DOUBLE TOP PLATE
4. WALL SHEATHING DOES NOT OCCUR AT ALL LOCATIONS, SEE PLANS AND SHEAR WALL SCHEDULE
5. PANEL EDGE NAILING
6. NAILING PER SHEAR WALL SCHEDULE

A4 SE503 DETAIL
NO SCALE



KEYNOTES:

1. (E) FLOOR SHEATHING
2. NEW BEAM, SEE PLANS, NUMBER OF PLY'S VARIES
3. (E) FLOOR JOIST WITH NEW CONNECTOR, SEE DETAIL B3/SE503
4. WOOD POST WIDTH TO MATCH WIDTH OF BEAM, GLUE AND NAIL WITH 16d @ 16"O.C.
5. KING STUD EACH SIDE OF BEAM WITH (4) 16d NAILS INTO BEAM AND GLUE AND NAIL TO COLUMN ACCORDING TO KEY NOTE 4

A5 SE503 DETAIL
NO SCALE

GENERAL NOTES:

KEY NOTES:

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wca@wcaeng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 17 · 08	08008

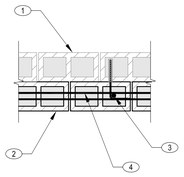
REGISTERED PROFESSIONAL ENGINEER No.189660 CLIFF R. COLE STATE OF UTAH

STRUCTURAL DETAILS

SE 503

KEYNOTES:

1. (E) MASONRY WALL
2. NEW MASONRY WALL, SEE PLANS
3. VERT. REINF., SEE PLANS
4. HORIZ. REINF, SEE PLANS
5. #4 HOOKED BARS @ 32" VERT. AND ALIGNED WITH EACH VERT. BAR SEE DETAIL **E4/SE502** FOR EMBEDMENT



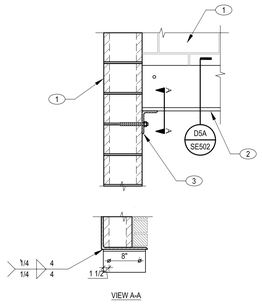
E1 DETAIL
SE504 NO SCALE

KEYNOTES:

1. (E) MASONRY WALL
2. STEEL LINTEL SEE PLANS
3. 4x6x7/16" 11 " LONG STEEL ANGLE (LLV) WITH (2) 3/4"Ø DRILL AND EPOXY BOLTS

NOTES:

A. SEE DETAIL D5/SE502 FOR ATTACHMENT OF STEEL LINTEL TO MASONRY WALL



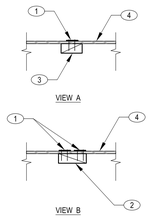
E2 DETAIL
SE504 NO SCALE

KEYNOTES:

1. SIMPSON STRAP, SEE PLANS FOR LENGTH
2. 3x8 BLOCKING BELOW STRAPS
3. 2x6 BLOCKING, UNO (SEE SPECIFIC DETAILS) W/ SIMPSON Z2 FOR 2xBLOCKING & Z4 FOR 3x BLOCKING @ ENDS
4. SHEATHING, SEE PLAN (DETAIL SHOWS NO OVERLAY)

NOTES:

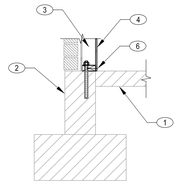
A. ALL BLOCKING: USE HEM-FIR #1 OR BTR GRADE.
B. REMOVE AND REPLACE ANY SPLIT BLOCKING. USE 3x BLOCKING PRE-DRILL HOLES W/ 7/64"Ø BOT FOR 10d COMMON NAILS & 3/32"Ø BIT FOR 8d COMMON NAILS



E3 DETAIL
SE504 NO SCALE

KEYNOTES:

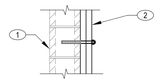
1. (E) SLAB ON GRADE
2. (E) FOUNDATION SYSTEM
3. (E) STUD WALL AND BRICK VENEER
4. NEW WOOD SHEATHING, DOES NOT OCCUR AT ALL LOCATIONS, SEE PLAN
5. (E) SILL PLATE VERIFY SHEAR BOLTS, SEE SHEAR WALL SCHEDULE FOR SIZE AND SPACING
6. PANEL EDGE NAILING



E4 DETAIL
SE504 NO SCALE

KEYNOTES:

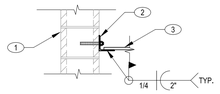
1. (E) MASONRY WALL
2. DOUBLE 2X STUDS AT END OF SHEAR WALL W/ 5/8" Ø DRILL AND EPOXY BOLTS AT 16" O.C. SEE DETAIL E1, E2, & E4/ SE502



E5 DETAIL
SE504 NO SCALE

KEYNOTES:

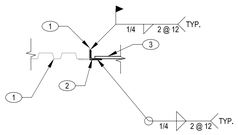
1. (E) MASONRY WALL
2. STEEL ANGLE (LLV) SEE DETAIL **C1/SE504**
3. 5/8" Ø RODS WITH THREADED ENDS AT TURN BUCKLES



C1 DETAIL
SE504 NO SCALE

KEYNOTES:

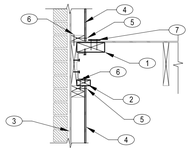
1. (E) STEEL DECK AND DECK ANGLE
2. STEEL ANGLE SEE DETAIL **C1/SE504**
3. 5/8" Ø RODS WITH THREADED ENDS AT TURN BUCKLES



C2 DETAIL
SE504 NO SCALE

KEYNOTES:

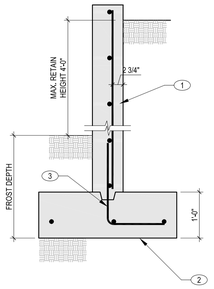
1. CONT. 3x8 W/ SIMPSON LS90 @ 12" O.C.
2. 2x6 BLOCKING WITH SIMPSON LS90 @12" O.C.
3. (E) STUD WALL W/ BRICK VENEER
4. WALL SHEATHING SEE PLANS AND SHEAR WALL SCHEDULE
5. PANEL EDGE NAILING
6. SILL PLATE ATTACHMENT NAILING SEE SHEARWALL SCHEDULE AND PLANS.
7. SIMPSON STEEL STRAP SEE PLANS, CONT. STRAP TO END OF SHEAR WALL.
8. (E) FLOOR JOIST



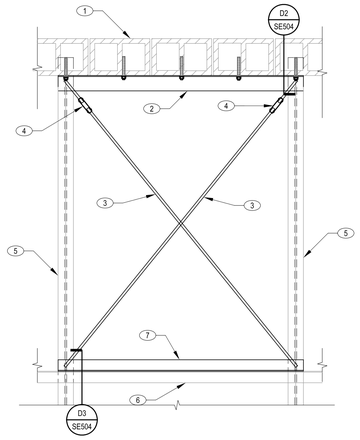
C3 DETAIL
SE504 NO SCALE

KEYNOTES:

1. 8" CONC. WALL WITH #4 BARS @ 16"O.C. E.W.
2. 3'-0" WIDE FOOTING WITH (3) #4 BARS. CENTER WALL ON FOOTING
3. HOOKED BAR MATCHING SIZE AND SPACING OF VERT. REINF.



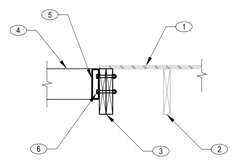
C4 DETAIL
SE504 NO SCALE



C1 DETAIL
SE504 NO SCALE

KEYNOTES:

1. (E) FLOOR SHEATHING CUT FOR NEW STAIR OPENING
2. (E) FLOOR JOIST
3. WOOD HEADER, SEE PLANS
4. STAIR LANDING, SEE ARCH.
5. TUBE STEEL @ EDGE OF LANDING, SEE ARCH
6. 5/8"Ø THROUGH BOLTS @ 12"O.C. STAGGERED 2" ABOUT CENTER LINE OF BEAM.



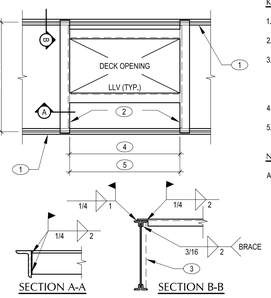
C2 DETAIL
SE504 NO SCALE

KEYNOTES:

1. STEEL ROOF JOIST (TYP.)
2. 6x4x5/16" ANGLE (LLV)
3. 2x2x1/4" ANGLE BRACE FROM ANGLE BEARING TO BOTTOM CHORD PANEL POINT (NOT REQ'D IF ANGLE BEARS AT TOP CHORD PANEL POINT)
4. L3x3x1/4 FROM 1'-0" TO 3'-0" SPAN
5. L6x4x5/16 FROM 3'-0" TO 10'-0" SPAN.

NOTE:

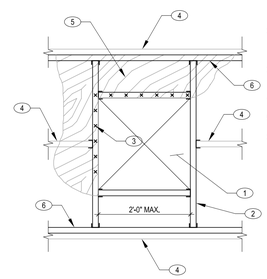
A. USE THIS DETAIL AT OPENINGS 12" OR GREATER. OPENINGS LESS THAN 12" SHALL BE REINFORCED WITH 16 GAUGE PLATE, 10" LARGER THAN OPENING IN ALL DIRECTIONS & FASTENED TO DECK @ 6"o.c.



C3 DETAIL
SE504 NO SCALE

KEYNOTES:

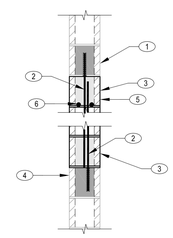
1. NEW OPENING IN WOOD DIAPHRAGM. IF POSSIBLE POSITION OPENING BETWEEN (E) ROOF JOISTS
2. NEW 2x ROOF JOIST MATCHING SIZE OF (E) JOISTS PROVIDE SIMPSON LU210, OR EQUAL, AT EACH END
3. PROVIDE 10d NAILS @ 4"O.C. AROUND NEW OPENING
4. (E) ROOF JOIST
5. (E) ROOF SHEATHING
6. NEW JOIST SISTERED NEXT TO EXISTING. SIZE AND LENGTH TO MATCH EXISTING.



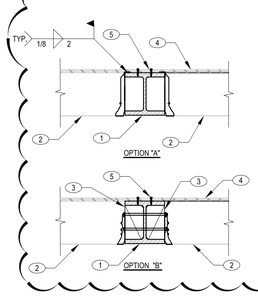
C4 DETAIL
SE504 NO SCALE

KEYNOTES:

1. (E) MASONRY LINTEL
2. REBAR DOWELS TO MATCH SIZE AND SPACING OF VERTICAL DOWELS, SEE PLANS & DETAIL **E4/SE502**
3. (E) OPENING TO BE INFILLED W/ MASONRY SEE **MW-3** ON SCHEDULE
4. (E) WALL OR CONCRETE SLAB
5. CUT FACE SHELL OFF OF TOP COURSE. DRYPACK CELL AND INSTALL FACE SHELL.
6. HORIZONTAL REINF. TO BE EPOXIED SIMILAR TO VERTICAL SEE DETAIL **E4/SE502**



C5 TYPICAL MASONRY INFILLS
SE504 NO SCALE



KEYNOTES:

1. STEEL BEAM, SEE PLAN
2. (E) FLOOR JOIST, CUT JOISTS FOR INSTALLATION OF BEAM. PROVIDE TOP FLANGE HANGERS @ EACH JOIST. HANGERS SHOULD BE SIMPSON LB212 TOP FLANGE HANGER OR LUS210 FACE MOUNT HANGER SEE OPTIONS
3. FILL WEB OF BEAM WITH SOLID BLOCKING PROVIDE 5/8" Ø THROUGH BOLTS AT 24" O.C. STAGGERED
4. (E) FLOOR SHEATHING
5. SIMPSON TB140ES SELF TAPPING SCREWS OR EQUAL AT 8" O.C. STAGGERED

NOTES:

A. AT SIM (E) JOISTS RUN OPPOSITE DIRECTION

B1 DETAIL
SE504 NO SCALE

GENERAL NOTES:

KEY NOTES:

Structural Engineering inc.
442 North Main Street, Suite 200
Bountiful, Utah 84010
e-mail: wcu@wcueng.com
(801) 298-1118, Office 298-1122 Fax

LEGEND:

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
1 - 8 - 09	08008
1 12 09	08008
1 13 09	08008

REGISTERED PROFESSIONAL ENGINEER
No.189660
CLIFF R. COLE
STATE OF UTAH

STRUCTURAL DETAILS

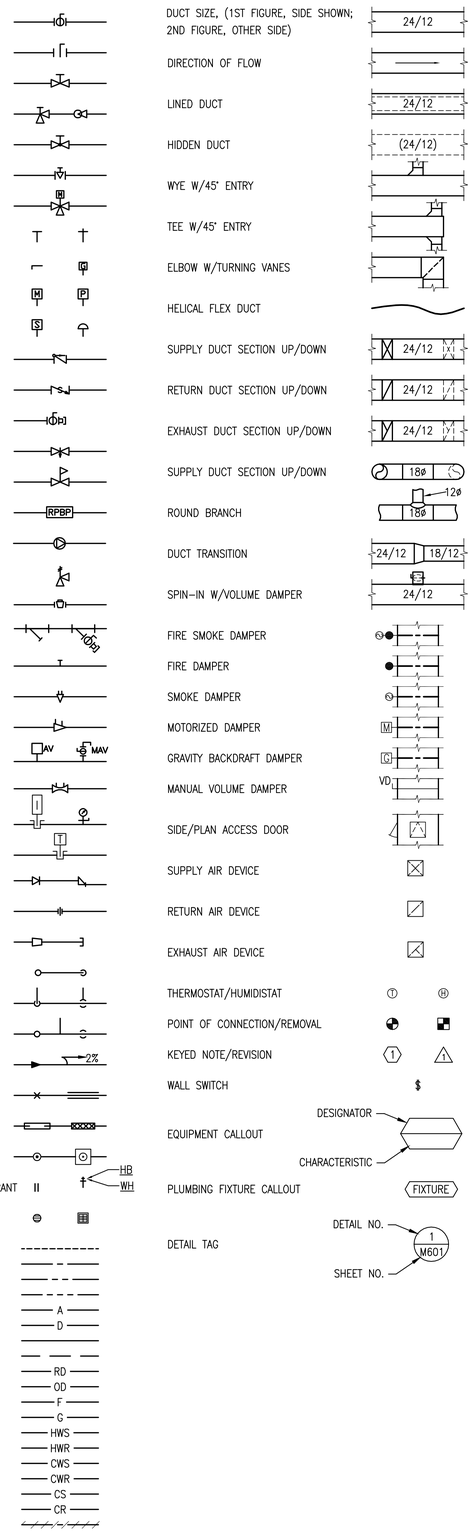
SE 504

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

ABBREVIATIONS

ø	ROUND, DIAMETER, PHASE	EWT	ENTERING WATER TEMPERATURE	OZ	OUNCE
ABS	ACRYLONITRILE–BUTADIENE–STYRENE, ABSOLUTE	EXH	EXHAUST	P	PUMP
ACCU	AIR COOLED CONDENSING UNIT	EXP	EXPANSION	PD	PRESSURE DROP/DIFFERENCE
A/C	AIR CONDITIONING	EXT	EXTERIOR	PE	POLYETHYLENE
AD	ACCESS DOOR, AREA DRAIN	F	FAHRENHEIT	PEX	CROSS–LINKED POLYETHYLENE
ADA	AMERICAN DISABILITIES ACT	FC	FLEXIBLE CONNECTION, FORWARD CURVED	PF	PRE–FILTER
AF	AIR FOIL, AIR FILTER	FCO	FLOOR CLEAN OUT	PH	PHASE
AFF	ABOVE FINISH FLOOR	FCU	FAN COIL UNIT	PIV	POST INDICATOR VALVE
AHU	AIR HANDLING UNIT	FD	FLOOR DRAIN, FIRE DAMPER	PLMB	PLUMBING
ALT	ALTITUDE, ALTERNATE	FDC	FIRE DEPARTMENT CONNECTION	POC	POINT OF CONNECTION
AMB	AMBIENT	FF	FINISH FLOOR, FINAL FILTER	PPM	PARTS PER MILLION
AMP	AMPERE (AMP, AMPS)	FL	FLOW LINE	PRS	PRESSURE REDUCING STATION
AP	ACCESS PANEL	FLEX	FLEXIBLE	PRV	PRESSURE REDUCING VALVE
APD	AIR PRESSURE DROP	FO	FLAT OVAL	PSF	POUNDS PER SQUARE FOOT
ARCH	ARCHITECT	FP	FIRE PROTECTION	PSI	POUNDS PER SQUARE INCH
AS	AIR SEPARATOR	FPM	FEET PER MINUTE	PTAC	PACKAGED TERMINAL AIR CONDITIONER
AV	ACID VENT, AIR VENT	FS	FLOOR SINK	PVC	POLYVINYL CHLORIDE
B	BOILER	FSD	FIRE SMOKE DAMPER	R	THERMAL RESISTANCE, RANKINE, RETURN
BAL	BALANCE	FSTAT	FREEZESTAT	RA	RETURN AIR
BAS	BUILDING AUTOMATION SYSTEM	FT	FEET	RAD	RADIUS
BBR	BASEBOARD RADIATOR	FTR	FIN TUBE RADIATION	RCP	RADIANT CEILING PANEL
BDD	BACKDRAFT DAMPER	FURN	FURNACE, FURNISH, FURNITURE	RD	ROOF DRAIN
BFP	BACKFLOW PREVENTER	FV	FACE VELOCITY	RECIRC	RECIRCULAT(E),(OR),(ING)
BFV	BUTTERFLY VALVE	G	GAUGE, NATURAL GAS	REF	REFRIGERAT(OR),(ION)
BHP	BRAKE HORSEPOWER	GA	GAGE	REQ'D	REQUIRED
BI	BACKWARD INCLINED	GAL	GALLON	RF	RETURN FAN
BOD	BOTTOM OF DUCT	GALV	GALVANIZED	RH	RELATIVE HUMIDITY
BOP	BOTTOM OF PIPE	GC	GENERAL CONTRACTOR	RM	ROOM
BT	BATH TUB	GD	GARAGE DRAIN	RPBP	REDUCED PRESS. BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT	GH	GRAVITY HOOD	RPM	REVOLUTIONS PER MINUTE
BTUH	BRITISH THERMAL UNITS/HR	GPM	GALLONS PER MINUTE	RTU	ROOF TOP UNIT
BV	BALL VALVE	GT	GREASE TRAP	REV	REVOLUTION, REVISION, REVERSE
C	CHILLER	HB	HOSE BIBB	S	SECONDS, SUPPLY, SINK
CA	COMPRESSED AIR, COMBUSTION AIR	H/C, HC	HEATING COIL	SA	SUPPLY AIR, SOUND ATTENUATOR
CAP	CAPACITY	HEPA	HIGH EFFICIENCY PARTICULATE AIR	SAN	SANITARY
CAV	CONSTANT AIR VOLUME	HOA	HAND, OFF, AUTO	SAT	SATURATED
C/C, CC	COOLING COIL	HP	HORSEPOWER, HEAT PUMP	SCFM	STANDARD CUBIC FEET PER MINUTE
CD	CONDENSATE DRAIN, CEILING DIFFUSER	HR	HOUR	SD	STORM DRAIN, SMOKE DAMPER
CFM	CUBIC FEET PER MINUTE	HSTAT	HUMIDISTAT	SECT	SECTION
CFOI	CONTRACTOR FURN., OWNER INSTALLED	HT	HEIGHT	SEN	SENSIBLE
CHW	CHILLER WATER	HVAC	HEATING, VENTILATING, AIR–CONDITIONING	SHT	SHEET
CO	CLEAN OUT, CARBON MONOXIDE	HX	HEAT EXCHANGER	SIM	SIMILAR
CO2	CARBON DIOXIDE	HZ	FREQUENCY	SL	SEA LEVEL
CONC	CONCRETE	IAQ	INDOOR AIR QUALITY	SP	STATIC PRESSURE
COND	CONDENS(ER),(ING),(ATE),(ATION)	ID	INSIDE DIAMETER	SPEC	SPECIFICATION
CONT	CONTINUOUS	IE	INVERT ELEVATION	SQ	SQUARE
COP	COEFFICIENT OF PERFORMANCE, COPPER	IN	INCH	SS	SERVICE SINK, STAINLESS STEEL
COTG	CLEANOUT TO GRADE	IN WC	INCHES, WATER COLUMN	STC	SOUND TRANSMISSION CLASS
CPVC	CHLORINATED POLY VINYL CHLORIDE	INV	INVERT	STD	STANDARD
CT	COOLING TOWER	I/O	INPUT/OUTPUT	STRUCT	STRUCTUR(E),(AL)
CU	CONDENSING UNIT, CUBIC	JS	JANITORS SINK	SUCT	SUCTION
CV	CONTROL VALVE, CONSTANT VOLUME	KEC	KITCHEN EQUIPMENT CONTRACTOR	T	TEMPERATURE, TIME
CUH	CABINET UNIT HEATER	KW	KILOWATT	T&P	TEMPERATURE AND PRESSURE
CW	CONDENSER WATER, CLOCKWISE	KWH	KILOWATT HOUR	TAB	TEST, ADJUST AND BALANCE
DA	DISCHARGE AIR	LAT	LEAVING AIR TEMPERATURE	TDH	TOTAL DYNAMIC HEAD
dB	DECIBELS	LAV	LAVATORY	TEMP	TEMPERATURE, TEMPORARY
DB	DRY BULB TEMPERATURE	LBS	POUNDS	TONS	TONS OF REFRIGERATION
DDC	DIRECT DIGITAL CONTROL	LF	LINEAR FEET	TOD	TOP OF DUCT
DF	DRINKING FOUNTAIN	LVR	LOUVER	TOP	TOP OF PIPE
DIA	DIAMETER	LWT	LEAVING WATER TEMPERATURE	TSP	TOTAL STATIC PRESSURE
DMPR	DAMPER	MA	MEDICAL AIR, MIXED AIR	TSTAT	THERMOSTAT
DP	DEWPOINT, DIFFERENTIAL PRESSURE	MAT	MATERIAL, MIXED AIR TEMPERATURE	TYP	TYPICAL
DR	DRAIN	MAU	MAKE UP AIR HANDLING UNIT	U	URINAL
DSN	DOWNSPOUT NOZZLE	MAV	MANUAL AIR VENT	UH	UNIT HEATER
DW	DISHWASHER	MAX	MAXIMUM	UNO	UNLESS NOTED OTHERWISE
DWG	DRAWING	MBH	BTU/HR X 1,000	V	VENT, VALVE
DWV	DRAIN, WASTE, VENT	MC	MECHANICAL CONTRACTOR	VA	VOLT AMPERE
DX	DIRECT EXPANSION	MCC	MOTOR CONTROL CENTER	VAC	VACUUM
(E) EXIST	EXISTING	MECH	MECHANICAL	VAV	VARIABLE AIR VOLUME
EAT	ENTERING AIR TEMPERATURE	MH	MAN HOLE	VD	VOLUME DAMPER
EC	ELECTRICAL CONTRACTOR	MIN	MINIMUM, MINUTE	VFD	VARIABLE FREQUENCY DRIVE
ECON	ECONOMIZER	MVD	MANUAL VOLUME DAMPER	VI	VIBRATION ISOLATOR
EDH	ELECTRIC DUCT HEATER	NA	NOT APPLICABLE	VOL	VOLUME
EER	ENERGY EFFICIENCY RATIO	NC	NOISE CRITERIA, NORMALLY CLOSED	VP	VELOCITY PRESSURE
EF	EXHAUST FAN	NIC	NOT IN CONTRACT	VSC	VARIABLE SPEED CONTROLLER
EFF	EFFICIENCY	NO	NORMALLY OPEN, NITROUS OXIDE	VTR	VENT THROUGH ROOF
EL, ELEV	ELEVATION	NO.	NUMBER	W	WASTE
EMER	EMERGENCY	NOM	NOMINAL	W/	WITH
ENCL	ENCLOSURE	NR	NOISE REDUCTION	W/O	WITHOUT
ESP	EXTERNAL STATIC PRESSURE	NRC	NOISE REDUCTION COEFFICIENT	WB	WET BULB
ET	EXPANSION TANK	NTS	NOT TO SCALE	WC	WATER CLOSET
EUH	ELECTRIC UNIT HEATER	OA	OUTSIDE AIR	WCO	WALL CLEAN OUT
EVAP	EVAPORAT(E),(ING),(ED),(OR)	OBD	OPPOSED BLADE DAMPER	WHA	WATER HAMMER ARRESTOR
EWB	ENTERING WET BULB	OD	OVERFLOW DRAIN, OUTSIDE DIAMETER	WT	WEIGHT
EWC	ELECTRIC WATER COOLER	OF/CI	OWNER FURN./CONTRACTOR INSTALLED	YCO	YARD CLEANOUT
EWH	ELECTRIC WATER HEATER	OF/OI	OWNER FURNISHED/OWNER INSTALLED		
EWS	EYE WASH STATION	OS&Y	OPEN SCREW & YOLK		

MECHANICAL LEGEND



PROJECT NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH, 2006 INTERNATIONAL BUILDING CODE, 2006 INTERNATIONAL MECHANICAL CODE, 2006 INTERNATIONAL PLUMBING CODE, 2006 INTERNATIONAL FUEL GAS CODE, AND 2006 INTERNATIONAL ENERGY CODE, INCLUDING STATE AND LOCAL AMENDMENTS, SUBJECT TO AUTHORITY HAVING JURISDICTION INTERPRETATION.
2. CLOSELY COORDINATE NEW MECHANICAL AND PLUMBING CONSTRUCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL MEMBERS. DUCTWORK AND PIPE ROUTING IS APPROXIMATE, DIAGRAMMATIC AND IS NOT TO BE SCALED. PROVIDE ALTERNATE ROUTING, OFFSETS AND TRANSITIONS AS REQUIRED FOR COORDINATION OF ALL WORK WITHOUT ADDITIONAL COST.
3. DO NOT SHUT–OFF/PUT OUT SERVICE ANY SYSTEMS/SERVICES WITHOUT FIRST COORDINATING ALL DOWNTIME WITH THE OWNER'S PERSONNEL.
4. PROVIDE SEISMIC RESTRAINT FOR ALL MECHANICAL AND PLUMBING EQUIPMENT AND PIPING IN ACCORDANCE WITH 2006 IBC, IMC, AND IPC. SEISMIC DESIGN CATEGORY "D", SITE CLASS "D", SD1=0.6, SDS=1.02, AND SEISMIC OCCUPANCY CATEGORY II.
5. REVIEWED AND APPROVED SUBMITTAL.
6. RECORD ALL FIELD CHANGES ON RECORD DRAWINGS AND SUBMIT TO ENGINEER DURING PROJECT CLOSE OUT.
7. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
8. PROJECT ELEVATION IS 5000 FT FOR EQUIPMENT SELECTION.
9. PROVIDE ALL DUCT IN ACCORDANCE WITH SMACNA STANDARDS FOR 2" WC PRESSURE CLASS. SEAL ALL TRANSVERSE AND LONGITUDINAL SEAMS AND JOINTS EXCEPT FOR WELDED OR LOCKING–TYPE LONGITUDINAL JOINTS.
10. WRAP ALL OUTSIDE AIR DUCTWORK WITH 2" THICK 0.75 LBS/CF FIBERGLASS DUCT WRAP. TRIM AND SEAL JOINTS.
11. LINE ALL RECTANGULAR DUCT WITH 1" THICK INSULATED DUCT LINER. GLUED AND STICK PINNED IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
12. INSULATE ALL SUPPLY ROUND DUCTWORK ABOVE CEILINGS WITH 1–1/2" THICK 1.5 LBS/CF FIBERGLASS DUCT WRAP. TRIM AND SEAL JOINTS.
13. PROVIDE 1–1/2" THICK INSULATED FLEXIBLE DUCT AS INDICATED ON DRAWINGS CONFORMING TO NFPA 90A, UL 181–CLASS 0 OR 1 STANDARDS. INSTALL FLEXIBLE DUCT AS SHORT AS POSSIBLE WITHOUT KINKS.
14. LOCATE DIFFUSERS AND RETURN GRILLES ACCORDING TO THE ARCHITECTURAL REFLECTED CEILING PLANS.
15. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
16. PROVIDE ISOLATION VALVES SERVING EACH PIECE OF EQUIPMENT.
17. DISINFECT NEW DOMESTIC WATER PIPING. SUBMIT DISINFECTION REPORT TO ENGINEER FOR REVIEW.
18. ALL WASTE AND VENT IS 1–1/2" UNLESS OTHERWISE NOTED.
19. ALL WASTE AND VENT PIPE SHALL BE SCHEDULE 40 ABS, SCHEDULE 40 PVC, OR SERVICE WEIGHT CAST IRON.
20. PROVIDE TRAP PRIMERS AND CONNECT TO ALL FLOOR DRAINS, ALL FLOOR SINKS, AND ALL STANDPIPES THAT DO NOT HAVE A RELIABLE SOURCE TO MAINTAIN TRAP SEAL.
21. ALL WATER PIPE SHALL BE TYPE "L" COPPER.
22. T–DRILL FITTINGS SHALL NOT BE USED IN THIS PROJECT.
23. ALL "BRANCH" HOT AND COLD WATER LINES FEEDING ONE OR TWO SINKS OR LAV'S ARE 1/2". DROP IN WALL AND DISTRIBUTE TO SINKS OR LAV'S AS REQ'D. PROVIDE INDIVIDUAL STOPS FOR EACH SINK OR LAV.
24. ALL NATURAL GAS PIPE SHALL BE SCHEDULE 40 STEEL PIPE WITH SCREWED FITTINGS FOR 2 LB SERVICE. CONTRACTOR MAY USE CSST DOWNSTREAM OF REGULATORS FOR FINAL EQUIPMENT CONNECTION.
25. PROVIDE "DIRT LEG" AHEAD OF EACH PIECE OF FUEL FIRED EQUIPMENT.

SHEET LIST

MH001 – MECHANICAL LEGEND AND NOTES
FP101 – FIRE PROTECTION MAIN LEVEL FLOOR PLAN
FP102 – FIRE PROTECTION UPPER LEVEL FLOOR PLAN
MD101 – MECHANICAL MAIN LEVEL DEMOLITION PLAN
MD102 – MECHANICAL UPPER LEVEL DEMOLITION PLAN
MH101 – MECHANICAL MAIN LEVEL FLOOR PLAN
MH102 – MECHANICAL UPPER LEVEL FLOOR PLAN
MH103 – MECHANICAL ROOF PLAN
MH401 – ENLARGED MECHANICAL UPPER LEVEL FLOOR PLAN
MH501 – MECHANICAL DETAILS
MH502 – MECHANICAL DETAILS
MH601 – MECHANICAL SCHEDULES
MH602 – MECHANICAL SCHEDULES
MH701 – MECHANICAL PIPING SCHEMATICS
MP101 – MECHANICAL PIPING MAIN LEVEL FLOOR PLAN
MP102 – MECHANICAL PIPING UPPER LEVEL FLOOR PLAN
PD101 – PLUMBING MAIN LEVEL DEMOLITION PLAN
PD102 – PLUMBING UPPER LEVEL DEMOLITION PLAN
PP101 – PLUMBING MAIN LEVEL FLOOR PLAN
PP102 – PLUMBING UPPER LEVEL FLOOR PLAN
PP401 – ENLARGED PLUMBING LEVEL FLOOR PLANS
PP501 – PLUMBING DETAILS
PP601 – PLUMBING SCHEDULES

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

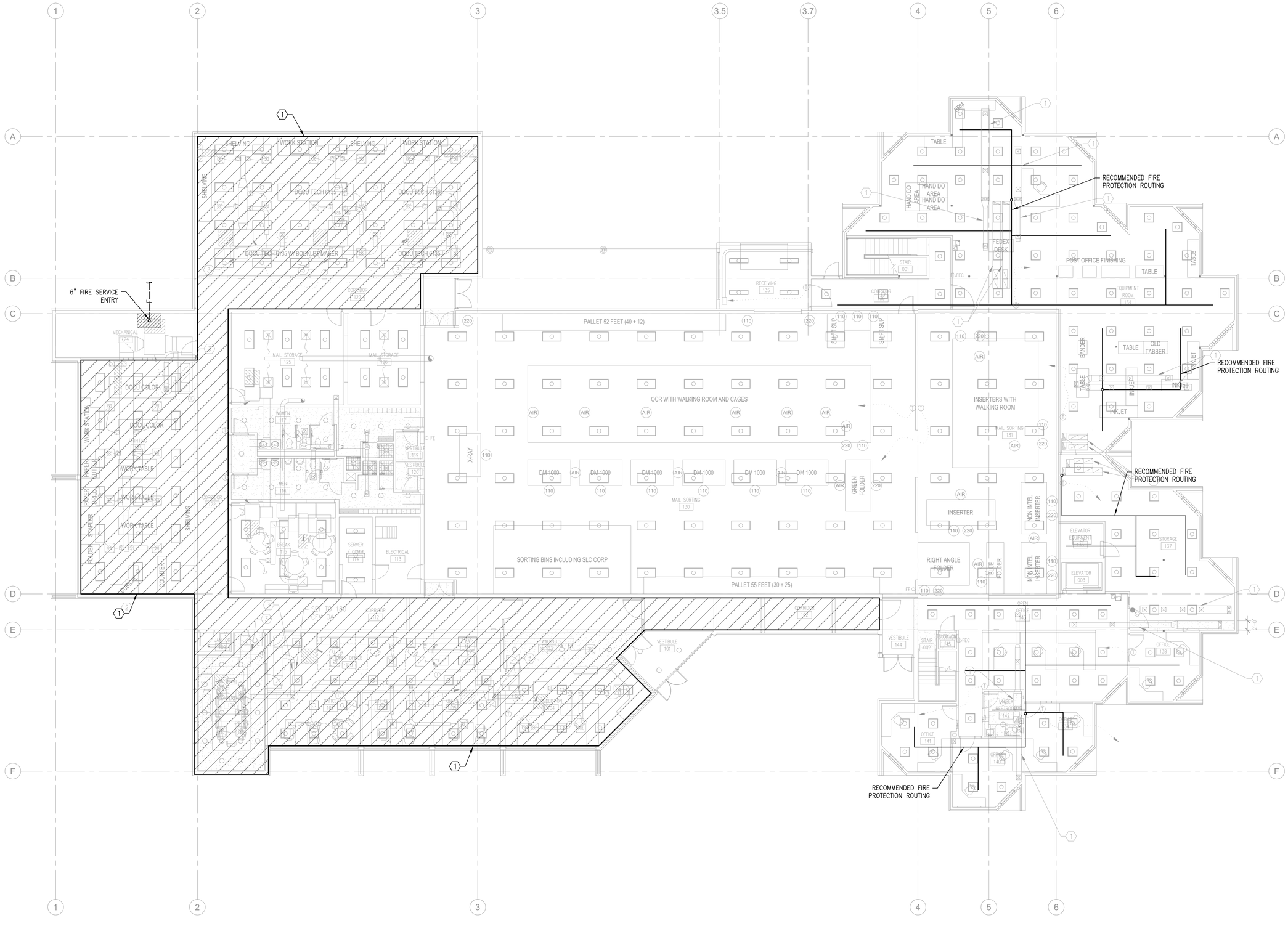
MECHANICAL LEGENDS AND NOTES

MH 001

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

(1) AREA OF EXISTING FIRE PROTECTION SYSTEM, DEMOLISH AND REPLACE.



1 / FP101 FIRE PROTECTION MAIN LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

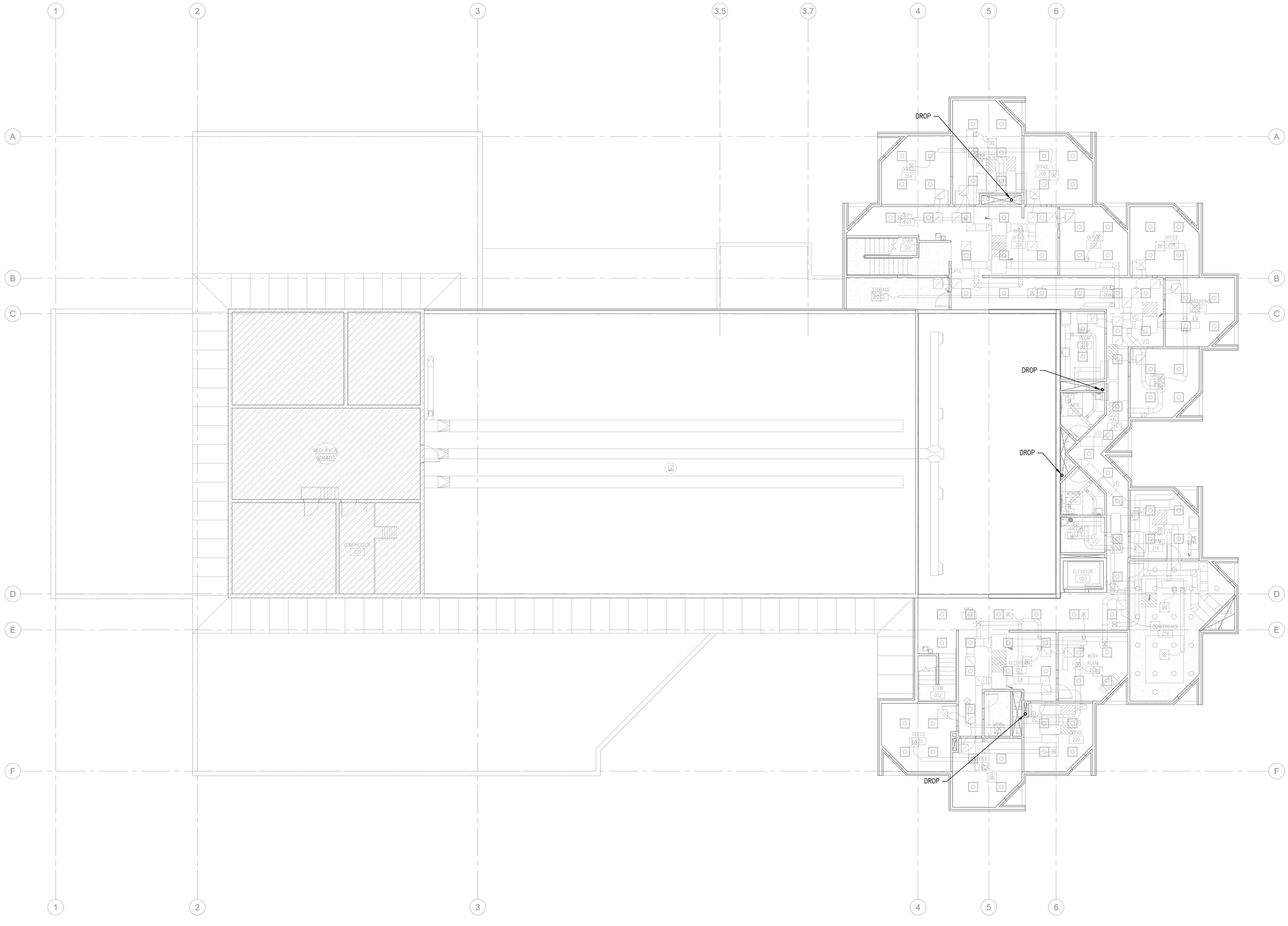
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

FIRE PROTECTION MAIN LEVEL FLOOR PLAN

FP 101

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008



1 FP102 FIRE PROTECTION UPPER LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

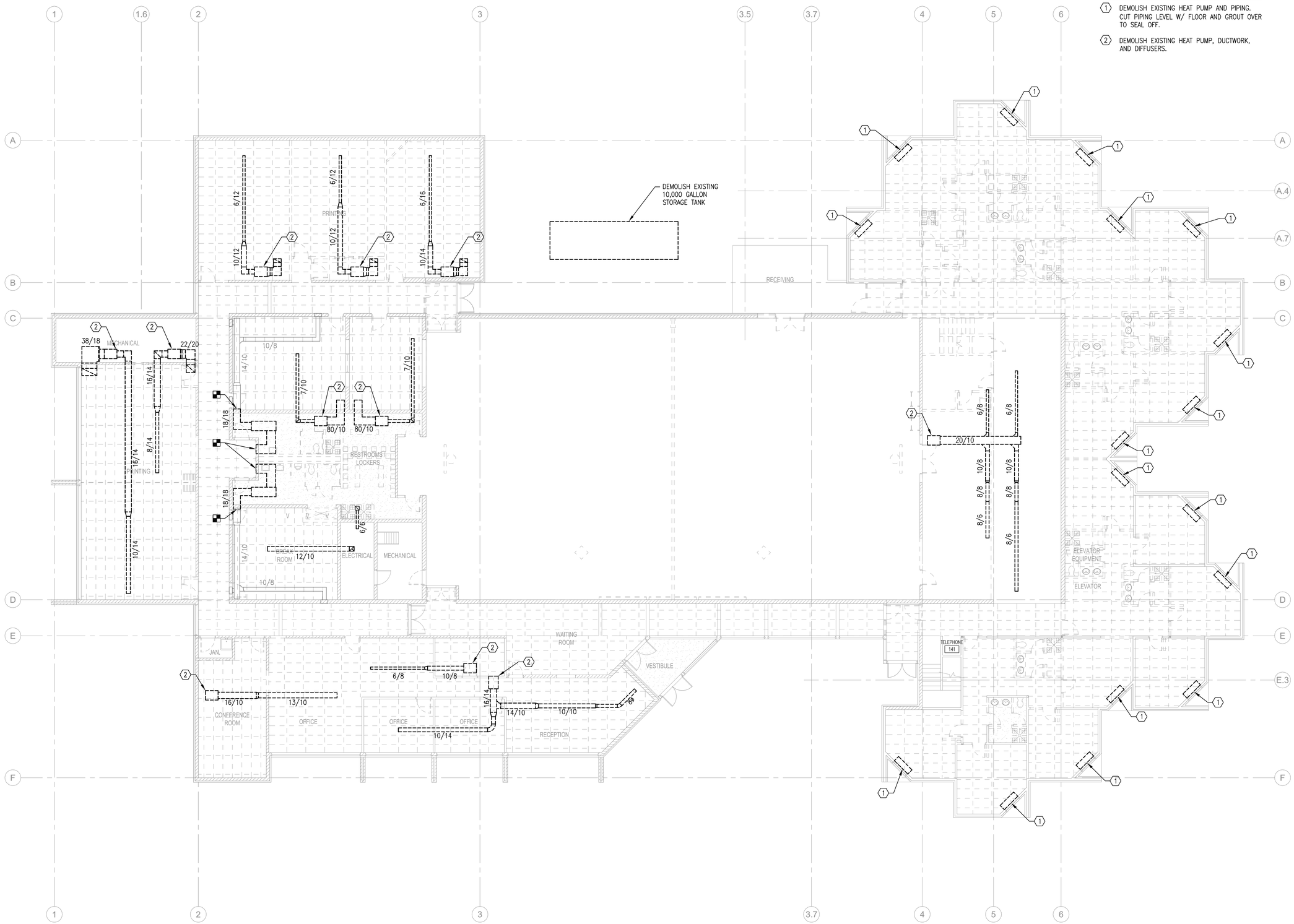
FIRE PROTECTION UPPER LEVEL FLOOR PLAN

FP 102

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

1. DEMOLISH EXISTING HEAT PUMP AND PIPING. CUT PIPING LEVEL W/ FLOOR AND GROUT OVER TO SEAL OFF.
2. DEMOLISH EXISTING HEAT PUMP, DUCTWORK, AND DIFFUSERS.



1 MD101 MECHANICAL MAIN LEVEL DEMOLITION PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

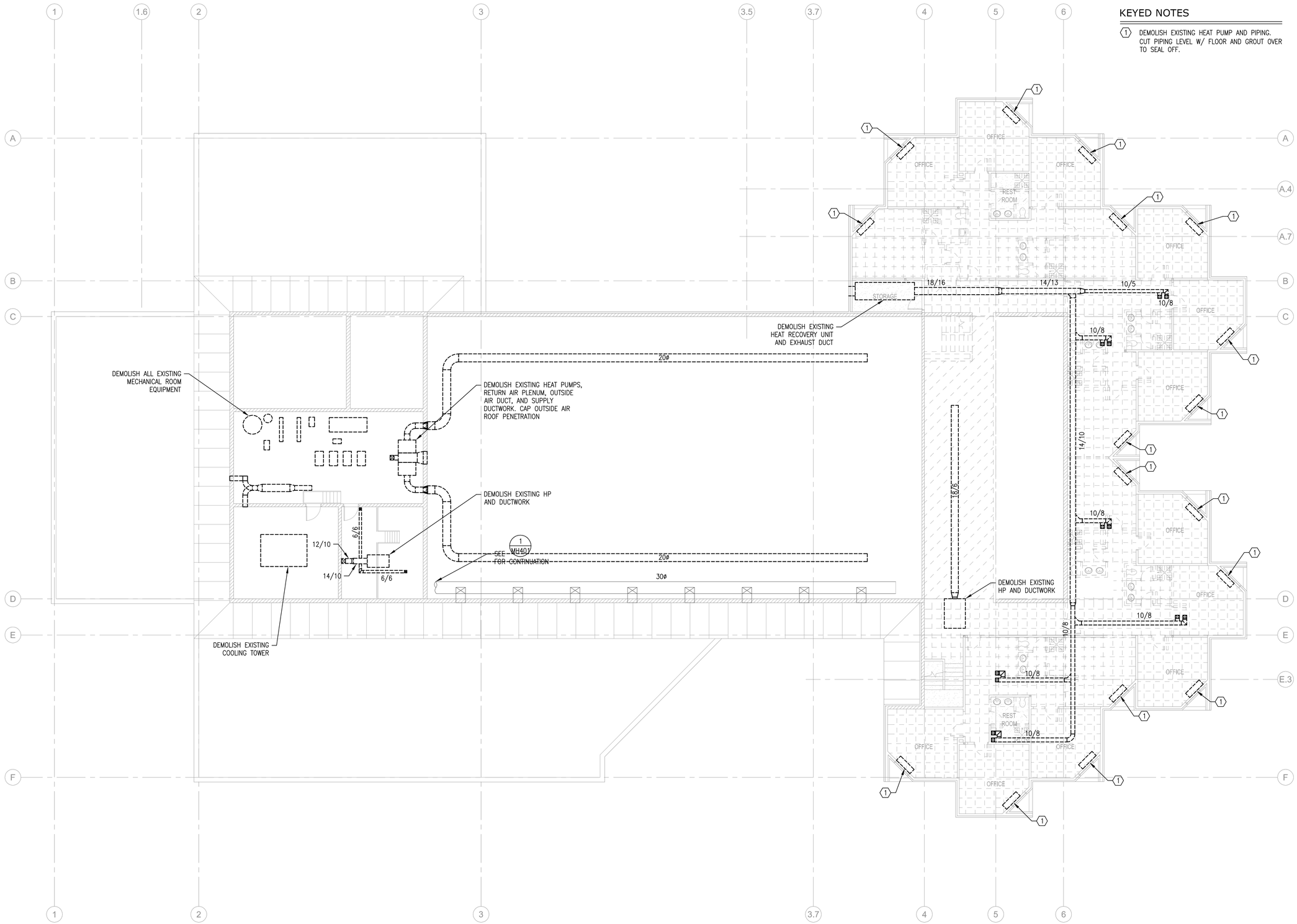
MECHANICAL MAIN LEVEL DEMOLITION PLAN

MD 101

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

(1) DEMOLISH EXISTING HEAT PUMP AND PIPING. CUT PIPING LEVEL W/ FLOOR AND GROUT OVER TO SEAL OFF.



1 MD102 MECHANICAL UPPER LEVEL DEMOLITION PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

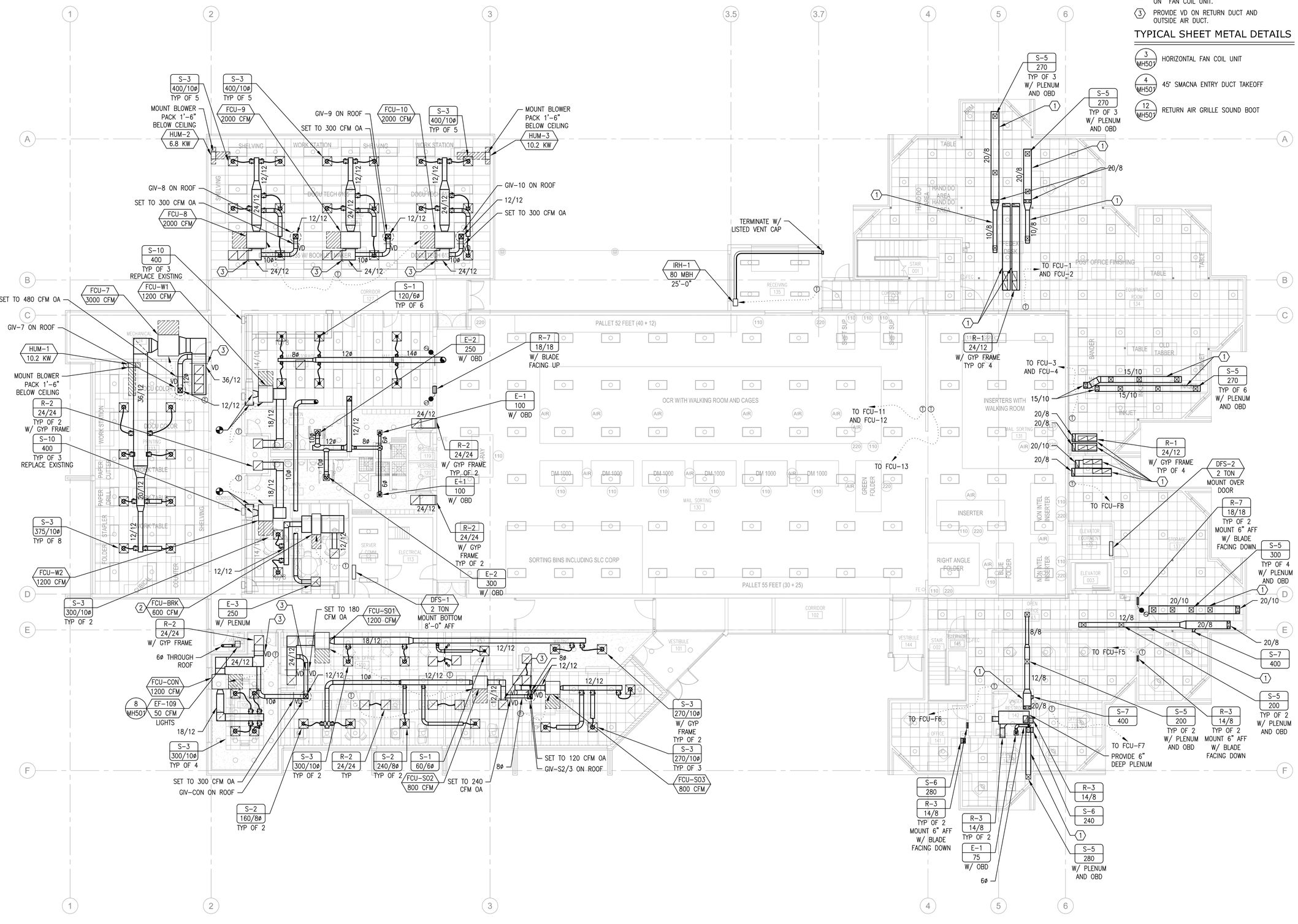
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL UPPER LEVEL DEMOLITION PLAN

MD 102

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008
WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC.



KEYED NOTES

1. RUN DUCT BETWEEN JOISTS.
2. PROVIDE SUPPLY AND RETURN PLENUM ON FAN COIL UNIT.
3. PROVIDE VD ON RETURN DUCT AND OUTSIDE AIR DUCT.

TYPICAL SHEET METAL DETAILS

- 3 / MH501 — HORIZONTAL FAN COIL UNIT
- 4 / MH501 — 45° SMACNA ENTRY DUCT TAKEOFF
- 12 / MH501 — RETURN AIR GRILLE SOUND BOOT

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL MAIN LEVEL FLOOR PLAN

MH 101

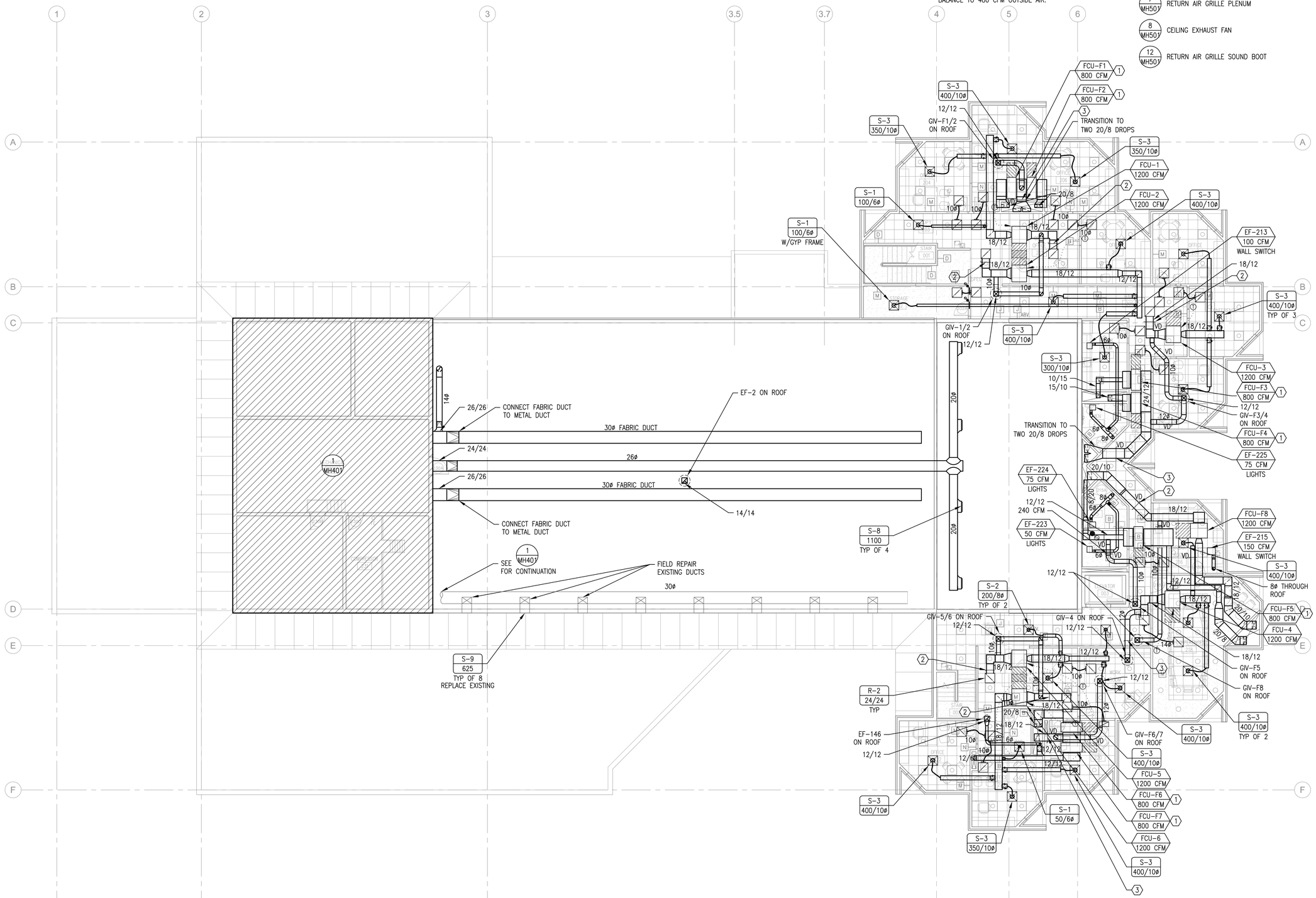
THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

1. PROVIDE SUPPLY AND RETURN PLENUMS ON FAN COIL UNIT.
2. PROVIDE VD ON OUTSIDE AIR AND RETURN. BALANCE TO 360 CFM OUTSIDE AIR.
3. PROVIDE VD ON OUTSIDE AIR AND RETURN. BALANCE TO 480 CFM OUTSIDE AIR.

TYPICAL SHEET METAL DETAILS

- 3 / MH507 — HORIZONTAL FAN COIL UNIT
- 4 / MH507 — 45° SMACNA ENTRY DUCT TAKEOFF
- 7 / MH507 — RETURN AIR GRILLE PLENUM
- 8 / MH507 — CEILING EXHAUST FAN
- 12 / MH507 — RETURN AIR GRILLE SOUND BOOT



1 / MH102 MECHANICAL UPPER LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

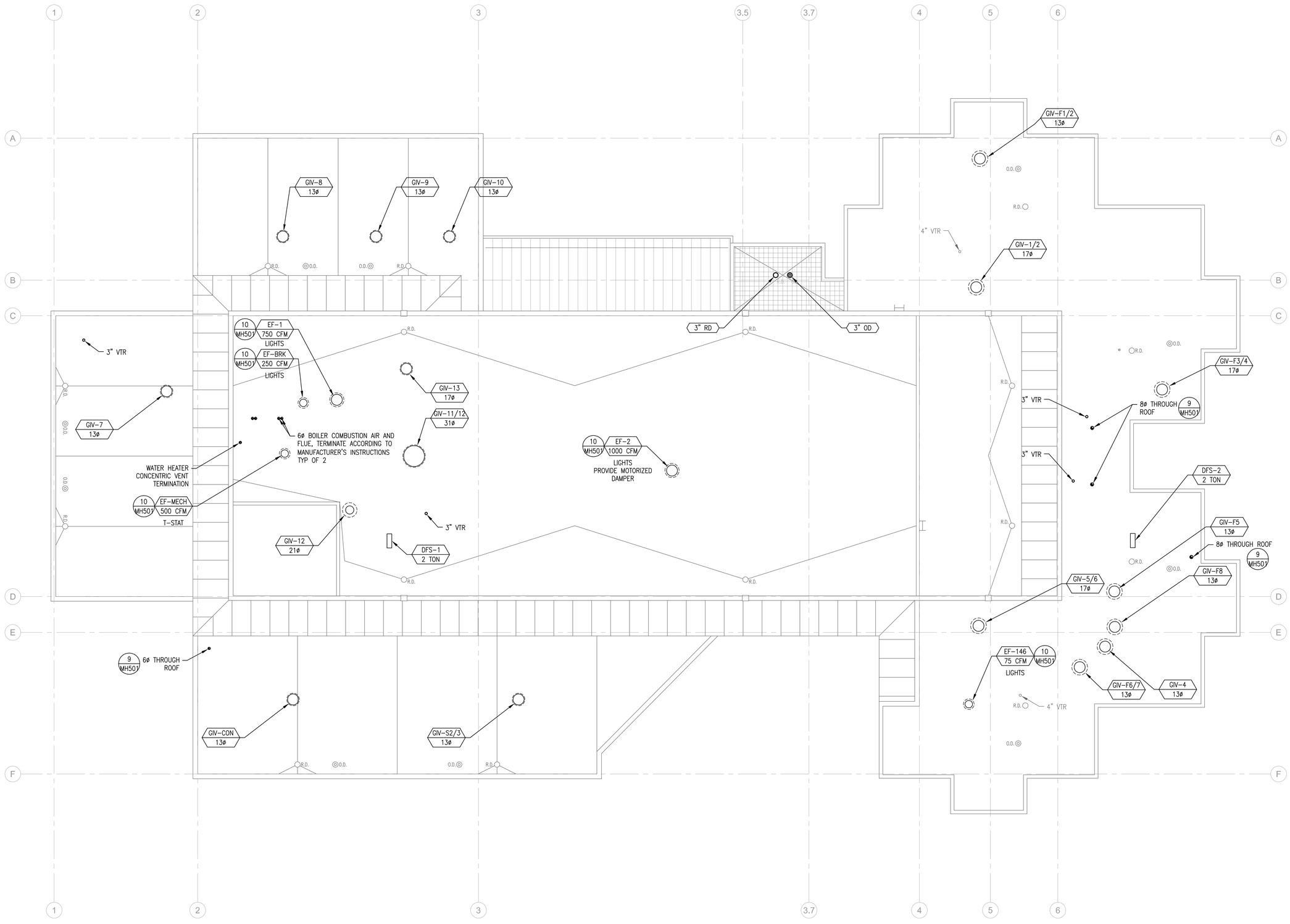
JRCA ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL UPPER LEVEL FLOOR PLAN

MH 102

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008



1 MH103 MECHANICAL ROOF PLAN

NORTH

8' 4' 2' 0 8' 16'
SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

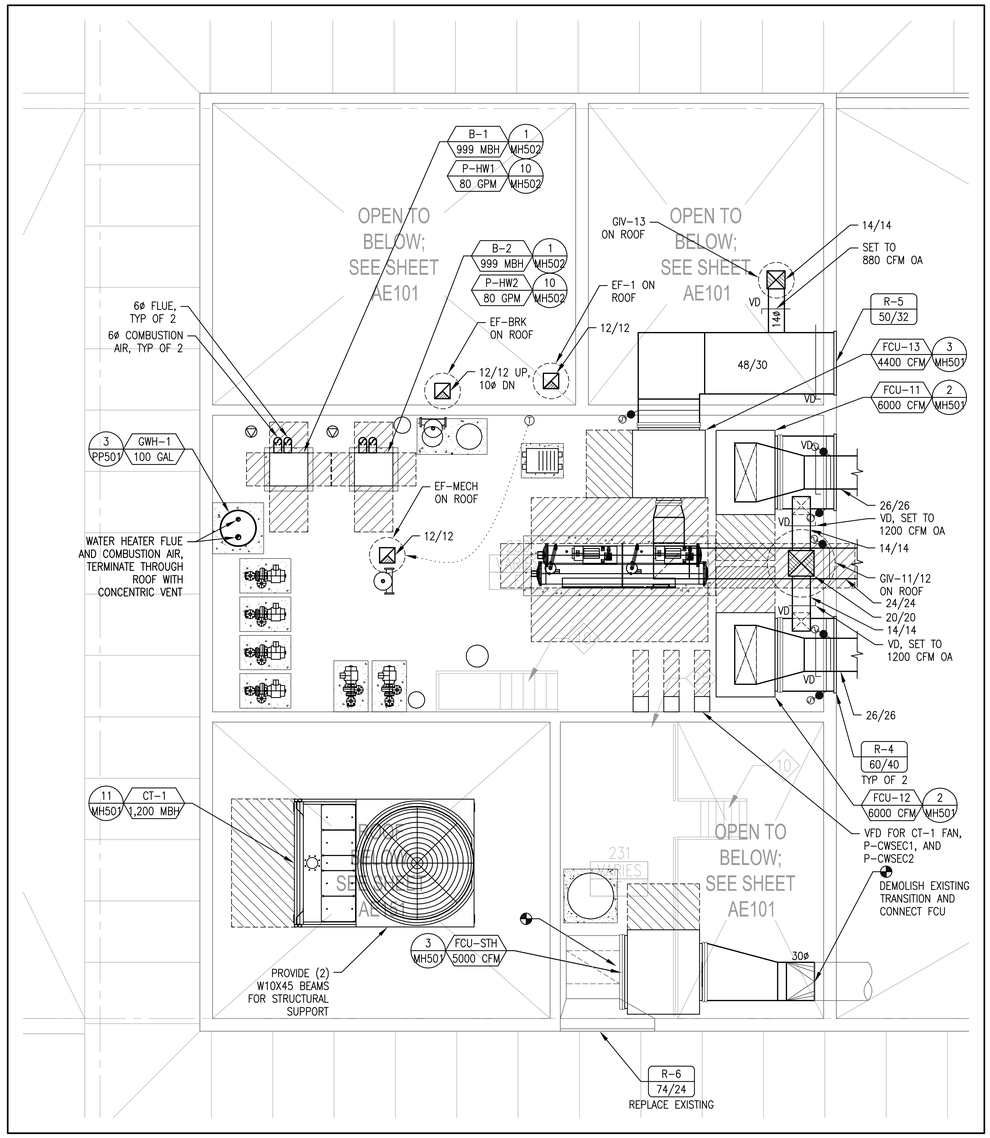
MECHANICAL ROOF PLAN

MH 103

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

TYPICAL SHEET METAL DETAILS

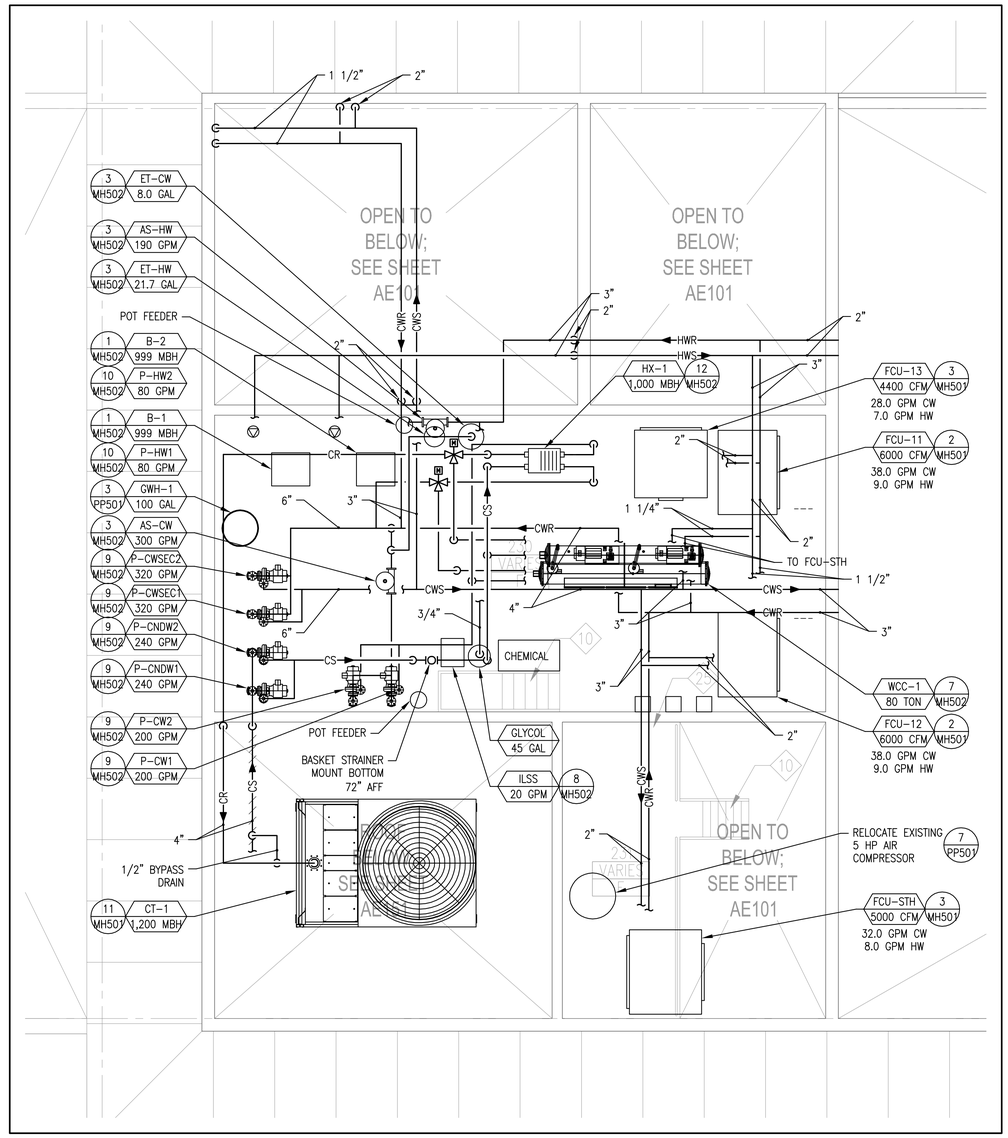
- 1 / MH501 — HOUSEKEEPING PAD
- 4 / MH502 — CHILLED WATER COIL
- 5 / MH502 — HEATING WATER COIL



1 / MH401 ENLARGED MECHANICAL UPPER FLOOR PLAN - DRY

NORTH

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



2 / MH401 ENLARGED MECHANICAL UPPER FLOOR PLAN - WET

NORTH

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

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

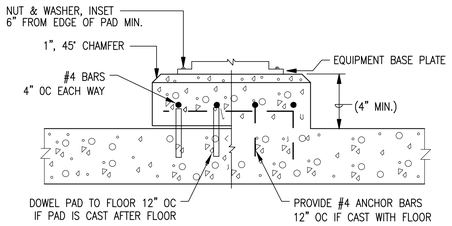
WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

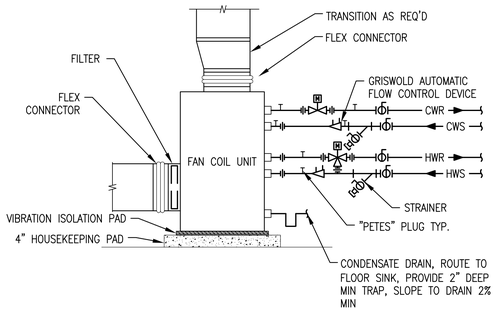
DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

ENLARGED MECHANICAL UPPER FLOOR PLAN

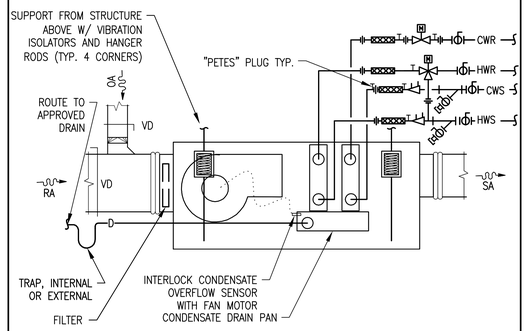
MH 401



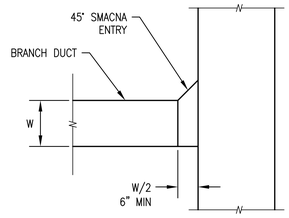
1 MH501 HOUSEKEEPING PAD



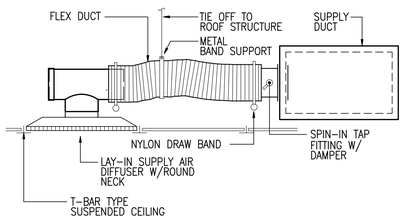
2 MH501 VERTICAL FAN COIL UNIT



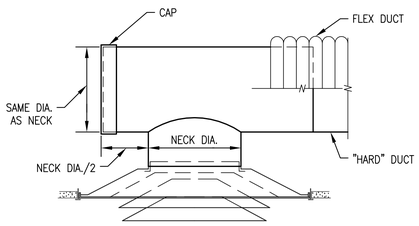
3 MH501 HORIZONTAL FAN COIL UNIT



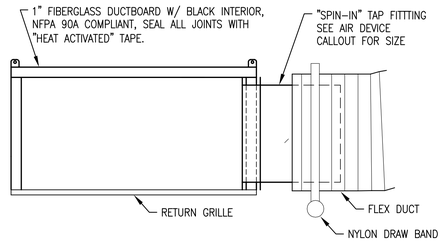
4 MH501 45° SMACNA ENTRY DUCT TAKE OFF



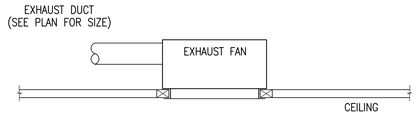
5 MH501 FLEX DUCT CONNECTION



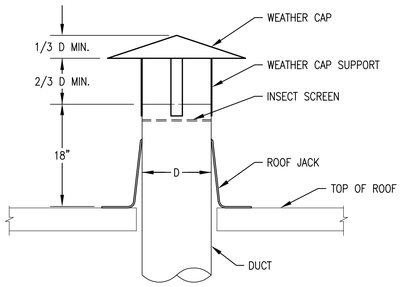
6 MH501 AIR CUSHION CONNECTION TO DIFFUSER



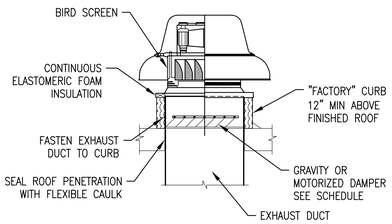
7 MH501 RETURN AIR GRILLE PLENUM



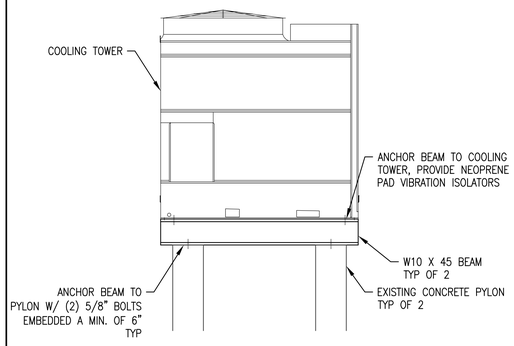
8 MH501 CEILING EXHAUST FAN



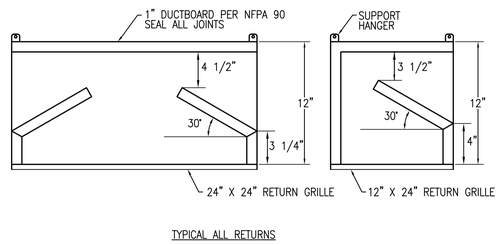
9 MH501 DUCT THROUGH ROOF



10 MH501 EXHAUST FAN AND CURB



11 MH501 COOLING TOWER MOUNTING



12 MH501 RETURN AIR GRILLE SOUND BOOT

13 MH501 NOT USED

14 MH501 NOT USED

15 MH501 NOT USED

16 MH501 NOT USED

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

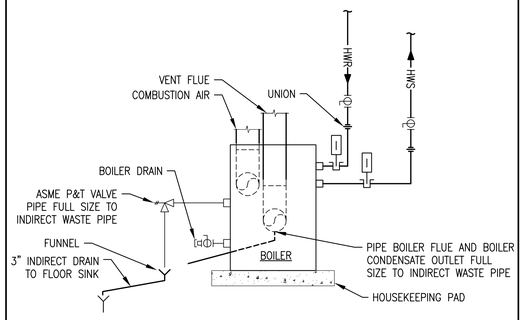
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL DETAILS

MH 501

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008



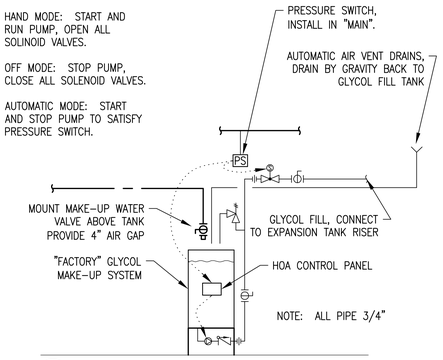
1 MH502 BOILER PIPING

CONTROL SEQUENCE

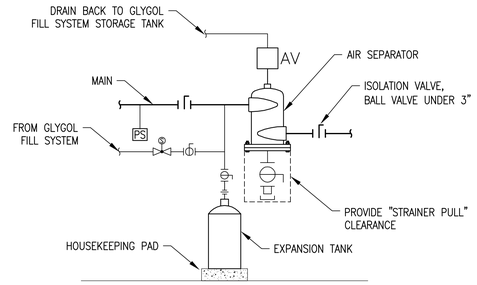
HAND MODE: START AND RUN PUMP, OPEN ALL SOLINOID VALVES.

OFF MODE: STOP PUMP, CLOSE ALL SOLENOID VALVES.

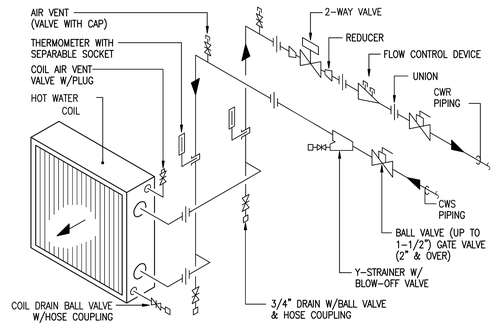
AUTOMATIC MODE: START AND STOP PUMP TO SATISFY PRESSURE SWITCH.



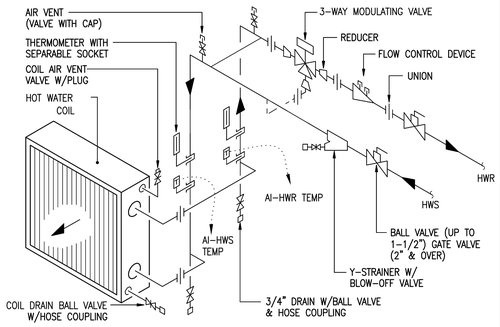
2 MH502 GLYCOL FILL SYSTEM



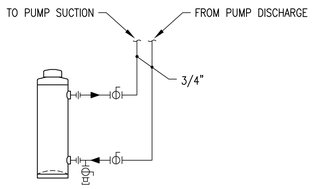
3 MH502 EXPANSION TANK/AIR SEPARATOR



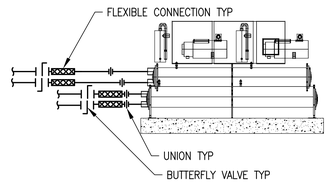
4 MH502 CHILLED WATER COIL



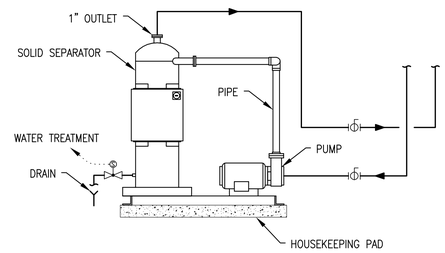
5 MH502 HEATING WATER COIL



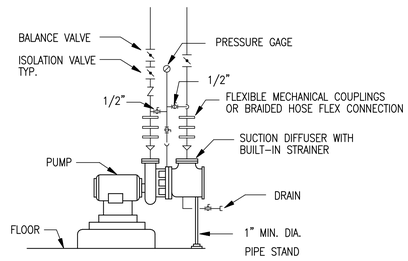
6 MH502 CHEMICAL BY-PASS FEEDER



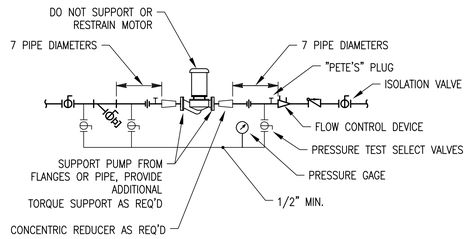
7 MH502 WATER COOLED CHILLER PIPING



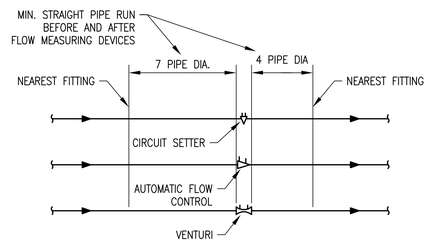
8 MH502 INLINE SOLIDS SEPERATOR



9 MH502 BASE MOUNTED PUMP

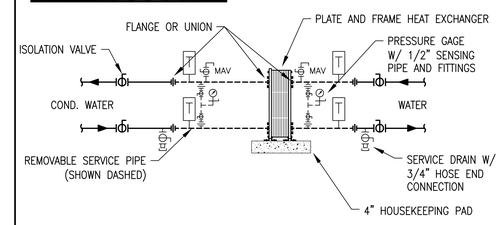


10 MH502 INLINE PUMP



11 MH502 FLOW MEASURING DEVICE INSTALLATION

SEE MANUFACTURERS INSTALLATION INSTRUCTIONS FOR LOCATION AND ORIENTATION OF INLET AND OUTLET PORTS AND ADDITIONAL ACCESSORIES



12 MH502 PLATE HEAT EXCHANGER

13 MH502 NOT USED

14 MH502 NOT USED

15 MH502 NOT USED

16 MH502 NOT USED

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008
THIS DRAWING, AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC.

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL DETAILS

MH 502

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008
THIS DRAWING MAY NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC.

FAN COIL UNIT SCHEDULE (FCU)

FCU / CFM

MARK	AREA SERVED	FAN			MOTOR		COOLING COIL									HEATING COIL							DIMENSIONS				MANUFACTURER MODEL	REMARKS
		CFM	ESP IN WC	DRIVE	HP	VOLT/ PHASE	ROWS	EAT DB/WB °F	LAT DB/WB °F	TOTAL MBH	SENS. MBH	EWT/ LWT °F	GPM	WATER PD FT WC	PROP. GLYC. %	ROWS	EAT/ LAT °F	TOTAL MBH	EWT/ LWT °F	GPM	WATER PD FT WC	PROP. GLYC. %	L IN	W IN	H IN	WT LBS		
FCU-1 THRU FCU-6	SECOND LEVEL OFFICES	1,200	0.5	BELT	1/2	120/ 1ø	6	75/ 63	54/ 53	32.7	22.6	45/ 55	7.0	7.5	WATER	2	70/ 91	29.6	160/ 130	2.0	0.9	WATER	37	42	19	250	FIRST CO. 36SHW6-36HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-7	PRINTING	3,000	0.5	BELT	1.5	208/ 3ø	6	75/ 63	53/ 52	84.5	58.8	45/ 54	19.0	4.6	WATER	2	70/ 102	86.2	160/ 130	6.0	1.0	WATER	53	54	27	500	FIRST CO. 90SHW6-90HWK	NOTE 2, PROVIDE OVERFLOW DRAIN PAN
FCU-8 THRU FCU-10	PRINTING	2,000	0.5	BELT	3/4	208/ 3ø	6	75/ 63	54/ 53	55.1	37.8	45/ 54	13.0	6.8	WATER	2	70/ 98	50.4	160/ 130	3.0	2.2	WATER	42	51	21	350	FIRST CO. 60SHW6-60HWK	NOTE 2, PROVIDE OVERFLOW DRAIN PAN
FCU-11 AND FCU-12	MAIL SORTING	6,000	0.5	BELT	3.0	208/ 3ø	6	75/ 63	53/ 53	167.0	116.7	45/ 54	38.0	5.7	WATER	2	70/ 102	172.7	140/ 117	9.0	1.5	WATER	46	66	63	850	FIRST CO. 180SVW6-180HWK	NOTE 2
FCU-13	INSERTERS	4,400	0.5	BELT	3.0	208/ 3ø	6	75/ 63	53/ 52	124.1	86.1	45/ 54	28.0	5.9	WATER	2	70/ 101	123.5	160/ 130	7.0	1.0	WATER	53	57	32	550	FIRST CO. 120SHW6-120HWK	NOTE 2
FCU-BRK	BREAK ROOM	600	0.5	DIRECT	1/4	120/ 1ø	3	75/ 63	58/ 56	14.2	11.0	45/ 52	4.0	4.5	WATER	2	70/ 99	18.3	160/ 130	2.0	2.2	WATER	46	23	10	180	FIRST CO. 10PHBC	NOTE 1
FCU-CON	CONFERENCE ROOM	1,200	0.5	BELT	1/2	120/ 1ø	6	75/ 63	54/ 53	32.7	22.6	45/ 54	7.0	7.5	WATER	2	70/ 91	29.6	160/ 130	2.0	0.9	WATER	37	42	19	250	FIRST CO. 36SHW6-36HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-F1 THRU FCU-F7	FIRST FLOOR OFFICES	800	0.5	DIRECT	(2) X 1/5	120/ 1ø	3	75/ 63	54/ 53	15.8	11.6	45/ 51	5.0	7.4	WATER	2	70/ 99	20.7	160/ 130	2.0	1.9	WATER	53	23	10	200	FIRST CO. 13PHBC	NOTE 1
FCU-F8	FIRST FLOOR OFFICES	1,200	0.5	BELT	1/2	120/ 1ø	6	75/ 63	54/ 53	32.7	22.6	45/ 55	7.0	7.5	WATER	2	70/ 91	29.6	160/ 130	2.0	0.9	WATER	37	42	19	250	FIRST CO. 36SHW6-36HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-S01	SOUTH OFFICES 1	1,200	0.5	BELT	1/2	120/ 1ø	6	75/ 63	54/ 53	32.7	22.6	45/ 54	7.0	7.5	WATER	2	70/ 91	29.6	160/ 130	2.0	0.9	WATER	37	42	19	250	FIRST CO. 36SHW6-36HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-S02	SOUTH OFFICES 2	800	0.5	BELT	1/3	120/ 1ø	6	75/ 63	54/ 53	20.6	14.6	45/ 53	5.0	3.3	WATER	2	70/ 96	18.3	160/ 130	2.0	0.4	WATER	37	33	19	230	FIRST CO. 24SHW6-24HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-S03	SOUTH OFFICES 3	800	0.5	BELT	1/3	120/ 1ø	6	75/ 63	54/ 53	20.6	14.6	45/ 53	5.0	3.3	WATER	2	70/ 96	18.3	160/ 130	2.0	0.4	WATER	37	33	19	230	FIRST CO. 24SHW6-24HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-STH	SOUTH CORRIDOR	5,000	0.6	BELT	2.0	208/ 3ø	6	75/ 63	53/ 52	142.1	98.5	45/ 54	32.0	4.1	WATER	2	70/ 104	152.5	160/ 130	8.0	1.1	WATER	57	66	40	850	FIRST CO. 180SHW6-180HWK	NOTE 2, PROVIDE OVERFLOW DRAIN PAN
FCU-W1	WEST CORRIDOR	1,200	0.5	BELT	1/2	120/ 1ø	6	75/ 63	54/ 53	32.7	22.6	45/ 55	7.0	7.5	WATER	2	70/ 91	29.6	160/ 130	2.0	0.9	WATER	37	42	19	250	FIRST CO. 36SHW6-36HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN
FCU-W2	WEST CORRIDOR	1,200	0.5	BELT	1/2	120/ 1ø	6	75/ 63	54/ 53	32.7	22.6	45/ 55	7.0	7.5	WATER	2	70/ 91	29.6	160/ 130	2.0	0.9	WATER	37	42	19	250	FIRST CO. 36SHW6-36HWK	NOTE 1, PROVIDE OVERFLOW DRAIN PAN

NOTE 1: W/ DISCONNECT, MOUNT HEATING COIL IN PREHEAT CONFIGURATION.
NOTE 2: W/ DISCONNECT, MOUNT HEATING COIL IN PREHEAT CONFIGURATION, PROVIDE SMOKE DETECTOR IN RETURN DUCT.

INFRARED RADIANT HEATER SCHEDULE

IRH / MBU

MARK	BURNER			DIMENSIONS				MANUFACTURER MODEL	REMARKS
	INPUT MBH	VOLT/ PHASE	RLA	TUBE L FT	TUBE DIA IN	FLUE DIA IN	WT LBS		
IRH-1	80	120/ 1ø	1.0	25	4	4	150	ROBERTS-GORDON CTH2-80	NOTE 1

NOTE 1: NATURAL GAS, PARABOLIC ALUMINUM REFLECTORS, HANGERS, ACCESSORIES, HOT SURFACE ELECTRONIC IGNITION, AND ALUMINIZED COMBUSTION TUBE.

DUCT FREE SPLIT (DFS)

DFS / NOM. TON

MARK	AREA SERVED	NOM. TONS	SEER	TOTAL MBH (ARI)	INDOOR UNIT								OUTDOOR UNIT									REMARKS
					FAN HP	CFM	VOLT/ PHASE	L IN	H IN	D IN	WT LBS	MANUFACTURER MODEL	VOLT/ PHASE	MCA	MCOP	FLA	L IN	H IN	D IN	WT LBS	MANUFACTURER MODEL	
DFS-1	SERVER/ COMM.	2.0	18.0	24.2	75 W	647	208/ 1ø	39	13	9	31	FUJITSU "HALCYON" ASU24CL	208/ 1ø	21	29	10.1	31	23	13	97	FUJITSU "HALCYON" AOU24CL	NOTE 1
DFS-2	ELEV. EQUIP.	2.0	18.0	24.2	75 W	647	208/ 1ø	39	13	9	31	FUJITSU "HALCYON" ASU24CL	208/ 1ø	21	29	10.1	31	23	13	97	FUJITSU "HALCYON" AOU24CL	NOTE 1

NOTE 1: ASHRAE 90.1 COMPLIANT, W/ "FACTORY" CONTROLS, "FACTORY" LINE KIT, AND REMOTE CONTROL, "FACTORY" CONDENSATE PUMP, 0°F LOW AMBIENT, "FACTORY" CURB, AND AUTOMATIC AIR SWEEP.

AIR DEVICE SCHEDULE

DEVICE / CFM/NCK

MARK	TYPE & DUTY	FACE SIZE H X W	NECK SIZE H X W	CEILING TYPE	MAX. CFM	MAX. T.P. IN WC	MAX. NC LEVEL	MIN T50 THROW FT	PATTERN	MANUFACTURER MODEL	REMARKS
S-1	ARCHITECTURAL PLAQUE DIFFUSER	24/24	6ø	LAY-IN	120	0.03	11	5	4-WAY	KRUEGER PLQ	W/ LAY-IN FRAME
S-2	ARCHITECTURAL PLAQUE DIFFUSER	24/24	8ø	LAY-IN	250	0.07	15	10	4-WAY	KRUEGER PLQ	W/ LAY-IN FRAME
S-3	ARCHITECTURAL PLAQUE DIFFUSER	24/24	10ø	LAY-IN	400	0.09	17	13	4-WAY	KRUEGER PLQ	W/ LAY-IN FRAME
S-4	ARCHITECTURAL PLAQUE DIFFUSER	24/24	12ø	LAY-IN	500	0.10	14	15	4-WAY	KRUEGER PLQ	W/ LAY-IN FRAME
S-5	LOUVERED FACE DIFFUSER	12/12	9/9	LAY-IN	300	0.09	19	15	4-WAY	KRUEGER SH	W/ SURFACE MOUNT FRAME, PLENUM, AND OBD
S-6	DOUBLE DEFLECTION AIRFOIL GRILLE	14/8	12/6	WALL	300	0.06	20	32	ADJ.	KRUEGER AF880	
S-7	DOUBLE DEFLECTION AIRFOIL GRILLE	16/8	14/6	WALL	400	0.08	24	36	ADJ.	KRUEGER AF880	
S-8	DOUBLE DEFLECTION AIRFOIL GRILLE	24/12	22/10	DUCT	1100	0.06	27	62	ADJ.	KRUEGER AF880	
S-9	DOUBLE DEFLECTION AIRFOIL GRILLE	24/16	22/14	WALL	900	0.03	13	55	ADJ.	KRUEGER AF880	FIELD VERIFY EXISTING DIFFUSER SIZE AND MATCH BEFORE SUBMITTING
S-10	DOUBLE DEFLECTION AIRFOIL GRILLE	20/6	18/4	WALL	400	0.10	29	37	ADJ.	KRUEGER AF880	FIELD VERIFY EXISTING DIFFUSER SIZE AND MATCH BEFORE SUBMITTING
R-1	PERFORATED RETURN	24/12	22/10	LAY-IN	600	0.05	28	N/A	N/A	KRUEGER 6490	W/ LAY-IN FRAME
R-2	PERFORATED RETURN	24/24	22/22	LAY-IN	1200	0.05	28	N/A	N/A	KRUEGER 6490	W/ LAY-IN FRAME
R-3	FIXED BLADE RETURN GRILLE	14/8	12/6	WALL	280	0.06	24	N/A	N/A	KRUEGER S80	W/ 35° DEFLECTION BLADES
R-4	FIXED BLADE RETURN GRILLE	60/40	58/38	WALL	6000	0.04	31	N/A	N/A	KRUEGER S80	W/ 35° DEFLECTION BLADES, MOUNT BLADES FACING UP
R-5	FIXED BLADE RETURN GRILLE	50/32	48/30	WALL	4400	0.03	31	N/A	N/A	KRUEGER S80	W/ 35° DEFLECTION BLADES, MOUNT BLADES FACING UP
R-6	FIXED BLADE RETURN GRILLE	74/24	72/22	WALL	5000	0.03	30	N/A	N/A	KRUEGER S80	W/ 35° DEFLECTION BLADES, MOUNT BLADES FACING UP, FIELD VERIFY EXISTING DIFFUSER SIZE AND MATCH BEFORE SUBMITTING
R-7	FIXED BLADE RETURN GRILLE	18/18	16/16	WALL	800	0.04	24	N/A	N/A	KRUEGER S80	W/ 35° DEFLECTION BLADES
E-1	ALUMINUM PERFORATED EXHAUST	12/12	6ø	GYP	100	0.09	7	N/A	N/A	KRUEGER 56690	ALUMINUM W/ SURFACE MOUNT FRAME
E-2	ALUMINUM PERFORATED EXHAUST	16/16	10ø	GYP	300	0.09	13	N/A	N/A	KRUEGER 56690	ALUMINUM W/ SURFACE MOUNT FRAME
E-3	PERFORATED EXHAUST	24/24	22/22	LAY-IN	1200	0.05	28	N/A	N/A	KRUEGER 6490	W/ LAY-IN FRAME

EXHAUST FAN SCHEDULE (EF)

EF / CFM

MARK	AREA SERVED	TYPE	CFM	ESP IN WC	FAN RPM	MOTOR			SONES	DAMPER	CONTROL	OPENING SIZE IN	MANUFACTURER MODEL	REMARKS
						BHP	HP	VOLT/ PHASE						
EF-1	RESTROOMS	CENT. ROOF	750	0.6	1302	.118	1/4	120/ 1ø	8.2	GRAVITY	LIGHTS	15.5/15.5	COOK ACED 120C15D	W/ ELECTRONIC SPEED CONTROL
EF-2	MAIL SORTING/ INSERTERS	CENT. ROOF	1000	0.25	1137	.089	1/4	120/ 1ø	7.1	MOTORIZED	LIGHTS	15.5/15.5	COOK ACED 120C15D	W/ ELECTRONIC SPEED CONTROL
EF-BRK	BREAK ROOM	CENT. ROOF	250	0.5	1489	72 WATTS	1/8	120/ 1ø	7.1	GRAVITY	LIGHTS	13.5/13.5	COOK ACED 90C15DH	W/ ELECTRONIC SPEED CONTROL
EF-MECH	MECHANICAL ROOM	CENT. ROOF	500	0.25	1429	85 WATTS	1/8	120/ 1ø	7.6	GRAVITY	T-STAT	13.5/13.5	COOK ACED 90C15DH	W/ ELECTRONIC SPEED CONTROL
EF-109	JANITOR'S 109	CEILING	50	0.25	740	36 WATTS	N/A	120/ 1ø	1.0	GRAVITY	LIGHTS	15/13	COOK GEMC GC-122	W/ ELECTRONIC SPEED CONTROL
EF-146	RESTROOM 146	CEILING	75	0.3	983	45 WATTS	N/A	120/ 1ø	2.1	GRAVITY	LIGHTS	15/13	COOK GEMC GC-142	W/ ELECTRONIC SPEED CONTROL
EF-213	BREAK ROOM 213	CEILING	100	0.3	982	64 WATTS	N/A	120/ 1ø	2.4	GRAVITY	WALL SWITCH	15/13	COOK GEMC GC-144	W/ ELECTRONIC SPEED CONTROL
EF-215	BREAK ROOM 215	CEILING	150	0.25	1127	93 WATTS	N/A	120/ 1ø	3.5	GRAVITY	WALL SWITCH	15/13	COOK GEMC GC-164	W/ ELECTRONIC SPEED CONTROL
EF-223	JANITOR'S 223	CEILING	50	0.3	759	36 WATTS	N/A	120/ 1ø	1.8	GRAVITY	LIGHTS	15/13	COOK GEMC GC-122	W/ ELECTRONIC SPEED CONTROL
EF-224	WOMEN'S 224	CEILING	75	0.3	985	45 WATTS	N/A	120/ 1ø	2.1	GRAVITY	LIGHTS	15/13	COOK GEMC GC-142	W/ ELECTRONIC SPEED CONTROL
EF-225	MEN'S 225	CEILING	75	0.3	985	45 WATTS	N/A	120/ 1ø	2.1	GRAVITY	LIGHTS	15/13	COOK GEMC GC-142	W/ ELECTRONIC SPEED CONTROL

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL SCHEDULES

MH 601

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

HEAT EXCHANGER SCHEDULE (HX)

HX / MBH

MARK	DUTY	HOT SIDE GPM	HOT SIDE INLET °F	HOT SIDE OUTLET °F	HOT SIDE PD FT	HOT SIDE FLUID	HOT SIDE CONNECTION IN	COLD SIDE GPM	COLD SIDE INLET °F	COLD SIDE OUTLET °F	COLD SIDE PD FT	COLD SIDE FLUID	COLD SIDE CONNECTION IN	HEAT XFER MBH	TYPE	PLATES NUMBER/ MAX	AREA SF	MATERIAL	GASKET	MAX. WORKING PRESSURE PSI	DIMENSIONS L (IN)	DIMENSIONS W (IN)	DIMENSIONS H (IN)	DIMENSIONS WT (LBS)	MANUFACTURER MODEL	REMARKS
HX-1	CONDENSER WATER TO CHILLED WATER	200	55	45	16.0	WATER	2-1/2	240	40	48.3	22.5	COND. WATER	2-1/2	1,000	PLATE AND FRAME IG	74/ 80	172.6	0.0157" AISI 316 STAINLESS	NITRIL	150	22	16	37	550	SONDEX S19A-IG10-74-TMTL63	

WATER COOLED CHILLER SCHEDULE (WCC)

WCC / TON

MARK	NOMINAL CAPACITY (TONS)	EER	REFRIGERANT	REFRIGERANT LBS/CIRCUIT	EVAPORATOR FLUID TYPE	EVAPORATOR FLOW GPM	EVAPORATOR PD FT WC	EVAPORATOR NO. PASSES	EVAPORATOR FOULING FACTOR	EVAPORATOR EWT/ LWT °F	CONDENSER FLUID TYPE	CONDENSER FLOW GPM	CONDENSER PD FT WC	CONDENSER FOULING FACTOR	CONDENSER EWT/ LWT °F	ELECTRICAL VOLTS/ PHASE	ELECTRICAL MCA	ELECTRICAL MCOP	COMPRESSOR NO.	COMPRESSOR TYPE	COMPRESSOR LRA	COMPRESSOR RLA	DIMENSIONS L (IN)	DIMENSIONS W (IN)	DIMENSIONS H (IN)	DIMENSIONS WT (LBS)	MANUFACTURER MODEL	REMARKS
WCC-1	80	22.7	R-134A	99.2	WATER	200	23.4	2	0.00010	55/ 45	COND. WATER	240	20.2	0.00025	70/ 80	200/ 3ø	211	300	2	SCREW	276	92	127	35	76	5750	TRANE RTWD-080A	NOTE 1

NOTE 1: HIGH EFFICIENCY CHILLER W/ CONVENIENCE OUTLET AND DISCONNECT.

GRAVITY INTAKE VENTILATOR (GIV)

GIV / THROAT

MARK	SYSTEM SERVED	THROAT OPENING IN	DIMENSIONS DIAM. IN	DIMENSIONS H IN	MANUFACTURER MODEL	REMARKS
GIV-CON	FCU-S01/FCU-CON OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-1/2	FCU-1/FCU-2 OUTSIDE AIR	17ø	28	13	COOK 16PR	NOTE 1
GIV-4	FCU-4 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-5/6	FCU-5/FCU-6 OUTSIDE AIR	17ø	28	13	COOK 16PR	NOTE 1
GIV-7	FCU-7 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-8	FCU-8 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-9	FCU-9 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-10	FCU-10 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-11/12	FCU-11/FCU-12 OUTSIDE AIR	31ø	53	26	COOK 30PR	NOTE 1
GIV-13	FCU-13 OUTSIDE AIR	17ø	28	13	COOK 16PR	NOTE 1
GIV-F1/2	FCU-F1/FCU-F2 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-F3/4	FCU-F3/FCU-F4 OUTSIDE AIR	17ø	28	13	COOK 16PR	NOTE 1
GIV-F5	FCU-F5 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-F6/7	FCU-F6/FCU-F7 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-F8	FCU-F8 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1
GIV-S2/3	FCU-S02/FCU-S03 OUTSIDE AIR	13ø	28	11	COOK 12PR	NOTE 1

NOTE 1: W/ ALUMINUM INSECT SCREEN, MINIMUM 13.5" DEEP CURB, AND "LORENIZED" FINISH TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLOR PALETTE.

COOLING TOWER (DIRECT) SCHEDULE (CT)

CT / MBH

MARK	HEAT REJECTION MBH	GPM	EWT/ LWT °F	OSA WB °F	PROP GLYC %	ELECTRICAL FAN RPM	ELECTRICAL FAN BHP	ELECTRICAL FAN VOLT/ PHASE	ELECTRICAL BASIN HEATER KW	DIMENSIONS L (IN)	DIMENSIONS W (IN)	DIMENSIONS H (IN)	DIMENSIONS WT (LBS)	MANUFACTURER MODEL	REMARKS
CT-1	1,200	240	80/ 70	64	WATER	1800	5.0	208/ 3ø	6.0	140	100	148	8060	MARLEY AV61001	

BOILER SCHEDULE (B)

B / MBH

MARK	BURNER INPUT @ SL MBH	BURNER OUTPUT @ SL MBH	BURNER OUTPUT @ 5000 MBH	BURNER EFFICIENCY %	BURNER INLET GAS PRESSURE MAX/MIN IN WC	CHARACTERISTICS ASME PRESSURE RATING PSI	CHARACTERISTICS MINIMUM RELIEF VALVE PSI	CHARACTERISTICS FLUE CATEGORY	CHARACTERISTICS FLUE SIZE IN	CHARACTERISTICS MIN INLET WATER TEMP °F	WATER FLOW GPM	WATER FLOW PD FT WC	ELECTRICAL VOLT/ PHASE	ELECTRICAL AMP	DIMENSIONS L IN	DIMENSIONS H IN	DIMENSIONS W IN	DIMENSIONS WT LBS	MANUFACTURER MODEL	REMARKS
B-1	999	869	869	87	10.5/ 4.0	160	30	CAT. IV	6	120	80	11.1	120/ 1ø	12	30	55	26	720	RAYPAK MVB-1003	
B-2	999	869	869	87	10.5/ 4.0	160	30	CAT. IV	6	120	80	11.1	120/ 1ø	12	30	55	26	720	RAYPAK MVB-1003	

EXPANSION TANK SCHEDULE (ET)

ET / GAL

MARK	SYSTEM SERVED	TEMP °F	GLYC. %	TANK VOL. GAL	ACCEPT. VOL. GAL	PRE-CHARGE PSI	DIMENSIONS DIA. IN	DIMENSIONS H IN	DIMENSIONS WT LBS	MANUFACTURER MODEL	REMARKS
ET-CW	CHILLED WATER	45	WATER	8.0	2.4	20	12	20	63	AMTROL "EXTROL" AX-15V	ASME RATED W/ POTABLE WATER COMPATIBLE BLADDER
ET-HW	HEATING WATER	180	WATER	21.7	11.3	20	16	30	184	AMTROL "EXTROL" AX-40V	ASME RATED W/ POTABLE WATER COMPATIBLE BLADDER

PUMP SCHEDULE (P)

P / GPM

MARK	SYSTEM SERVED	TYPE	GPM	HEAD FT WC	MIN % EFF.	GLYCOL %	MOTOR RPM	MOTOR BHP	MOTOR HP	MOTOR VOLT/ PHASE	MANUFACTURER MODEL	REMARKS
P-CNDW1	COND. WATER	BASE MOUNTED CLOSE COUPLED	240	52	73.6	WATER	1750	4.34	5	208/ 3ø	BELL & GOSSETT 1531 2-1/2BB	W/ SUCTION DIFFUSER
P-CNDW2	COND. WATER	BASE MOUNTED CLOSED COUPLED	240	52	73.6	WATER	1750	4.34	5	208/ 3ø	BELL & GOSSETT 1531 2-1/2BB	W/ SUCTION DIFFUSER
P-CWPRI1	CHILLED WATER PRIMARY	BASE MOUNTED CLOSE COUPLED	200	38	74.5	WATER	1750	2.64	3	208/ 3ø	BELL & GOSSETT 1531 2-1/2AB	W/ SUCTION DIFFUSER
P-CWPRI2	CHILLED WATER PRIMARY	BASE MOUNTED CLOSE COUPLED	200	38	74.5	WATER	1750	2.64	3	208/ 3ø	BELL & GOSSETT 1531 2-1/2AB	W/ SUCTION DIFFUSER
P-CWSEC1	CHILLED WATER SECONDARY	BASE MOUNTED CLOSE COUPLED W/ VFD	320	50	75.1	WATER	1750	5.5	7.5	208/ 3ø	BELL & GOSSETT 1531 3BC	W/ SUCTION DIFFUSER AND VFD
P-CWSEC2	CHILLED WATER PRIMARY	BASE MOUNTED CLOSE COUPLED W/ VFD	320	50	75.1	WATER	1750	5.5	7.5	208/ 3ø	BELL & GOSSETT 1531 3BC	W/ SUCTION DIFFUSER AND VFD
P-DHW	DOMESTIC HOT WATER RECIRC.	IN-LINE	5	15	N/A	POTABLE WATER	3300	N/A	1/6	120/ 1ø	BELL & GOSSETT PL-36	W/ BRONZE CASING
P-HW1	HEATING WATER	IN-LINE	80	62	51.9	30% PROP.	1750	2.45	3	208/ 3ø	BELL & GOSSETT SERIES 80 1-1/2 X 1-1/2 X 9-1/2	
P-HW2	HEATING WATER	IN-LINE	80	62	51.9	30% PROP.	1750	2.45	3	208/ 3ø	BELL & GOSSETT SERIES 80 1-1/2 X 1-1/2 X 9-1/2	

AIR SEPARATOR SCHEDULE (AS)

AS / GPM

MARK	SYSTEM SERVED	CONN. SIZE IN	MAX GPM	DESIGN GPM	PD FT WC	DIMENSIONS DIA IN	DIMENSIONS H IN	DIMENSIONS FLG TO FLG IN	DIMENSIONS DRY WT LBS	STRAINER FREE AREA SQ IN	MANUFACTURER MODEL	REMARKS
AS-CW	CHILLED WATER	4	300	200	4.5	13	31	21	165	140	BELL & GOSSETT ROLAIRTROL R-4	FLANGE CONNECTIONS W/ STRAINER
AS-HW	HEATING WATER	3	190	80	2.5	11	26	17	95	66	BELL & GOSSETT ROLAIRTROL R-3	NPT CONNECTIONS W/ STRAINER

HUMIDIFIER SCHEDULE (HUM)

HUM / KW

MARK	SYSTEM SERVED	MAX. HUMID. RATE LBS/HR	INPUT POWER KW	ELECTRICAL VOLT/ PHASE	ELECTRICAL FLA	ELECTRICAL MCOP	DIMENSIONS L (IN)	DIMENSIONS W (IN)	DIMENSIONS H (IN)	DIMENSIONS WT (LBS)	MANUFACTURER MODEL	REMARKS
HUM-1	PRINTING	30	10.2	208/ 3ø	28.3	40	18	13	25	100	NORTEC NH-030	W/ REMOTE MOUNTED BLOWER PACK
HUM-2	PRINTING	20	6.8	208/ 3ø	18.9	25	18	13	25	100	NORTEC NH-020	W/ REMOTE MOUNTED BLOWER PACK
HUM-3	PRINTING	30	10.2	208/ 3ø	28.3	40	18	13	25	100	NORTEC NH-030	W/ REMOTE MOUNTED BLOWER PACK

INLINE SOLIDS SEPARATOR (ILSS)

ILSS / GPM

MARK	SYSTEM SERVED	FLOW GPM	INLET/ OUTLET (IN)	ELECTRICAL MOTOR HP	ELECTRICAL VOLT/ PHASE	DIMENSIONS L (IN)	DIMENSIONS W (IN)	DIMENSIONS H (IN)	DIMENSIONS WT (LBS)	MANUFACTURER MODEL	REMARKS
ILSS	CONDENSER WATER SYSTEM	20	1/2	1.0	120/ 1ø	22	18	30	300	PEP FILTERS ICS2-0015GPM-TCP	TOWER CLEAN PACKAGE

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

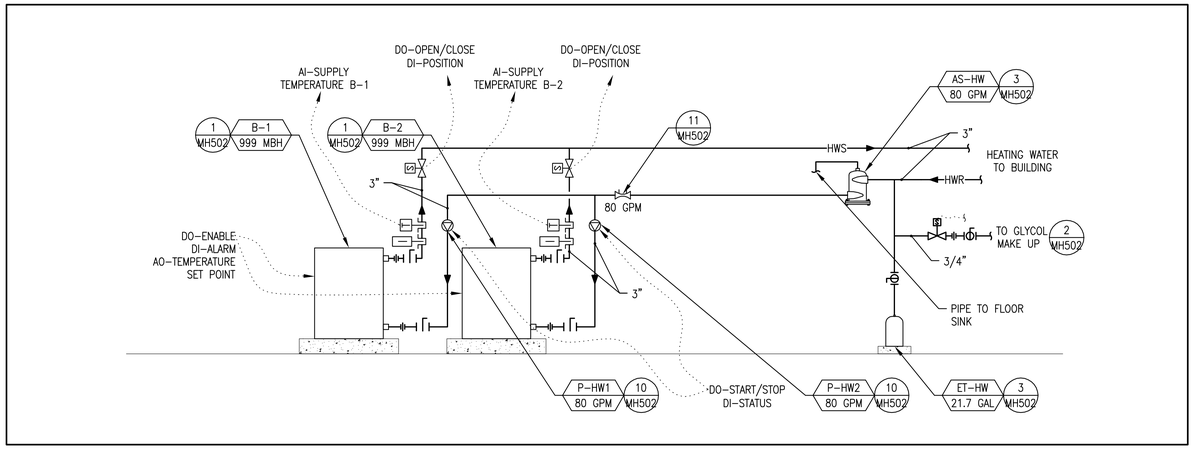
JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL SCHEDULES

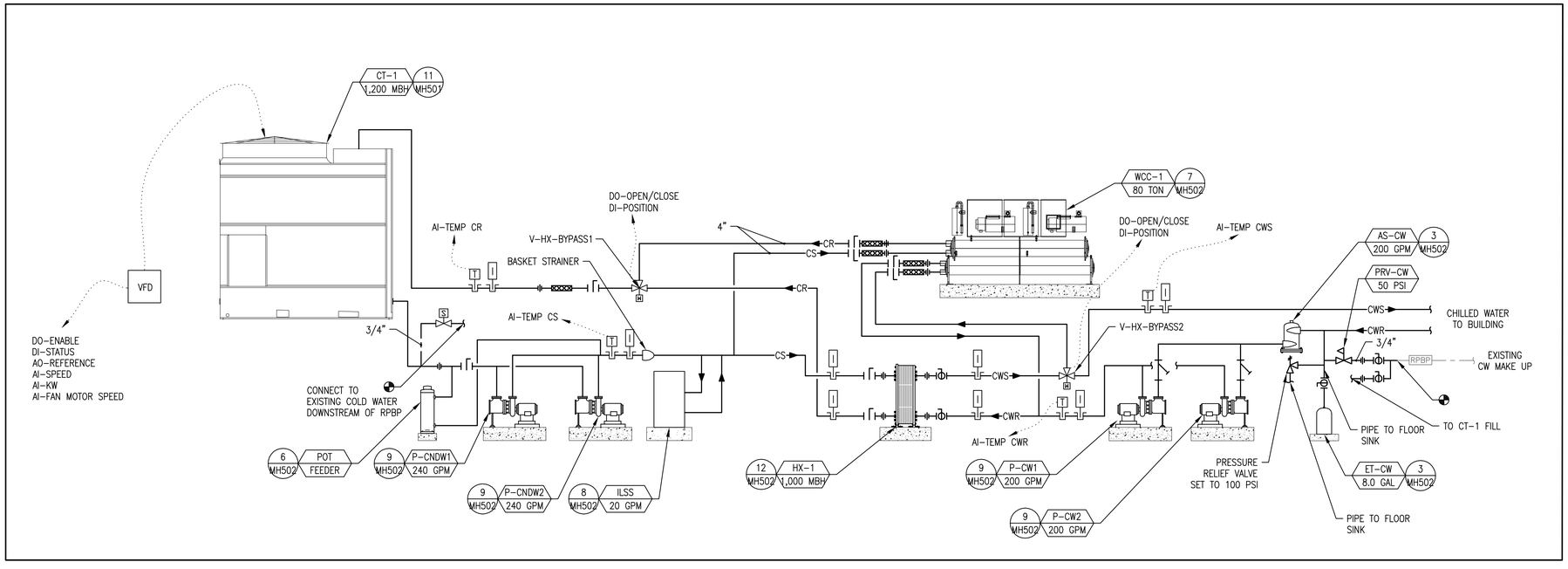
MH 602

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008



1 MH701 BOILER CONNECTION SCHEMATIC

8' 4' 2' 0 8' 16'
SCALE: 1/8" = 1'-0"



2 MH701 COOLING TOWER CONNECTION SCHEMATIC

8' 4' 2' 0 8' 16'
SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

MECHANICAL PIPING SCHEMATICS

MH 701

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

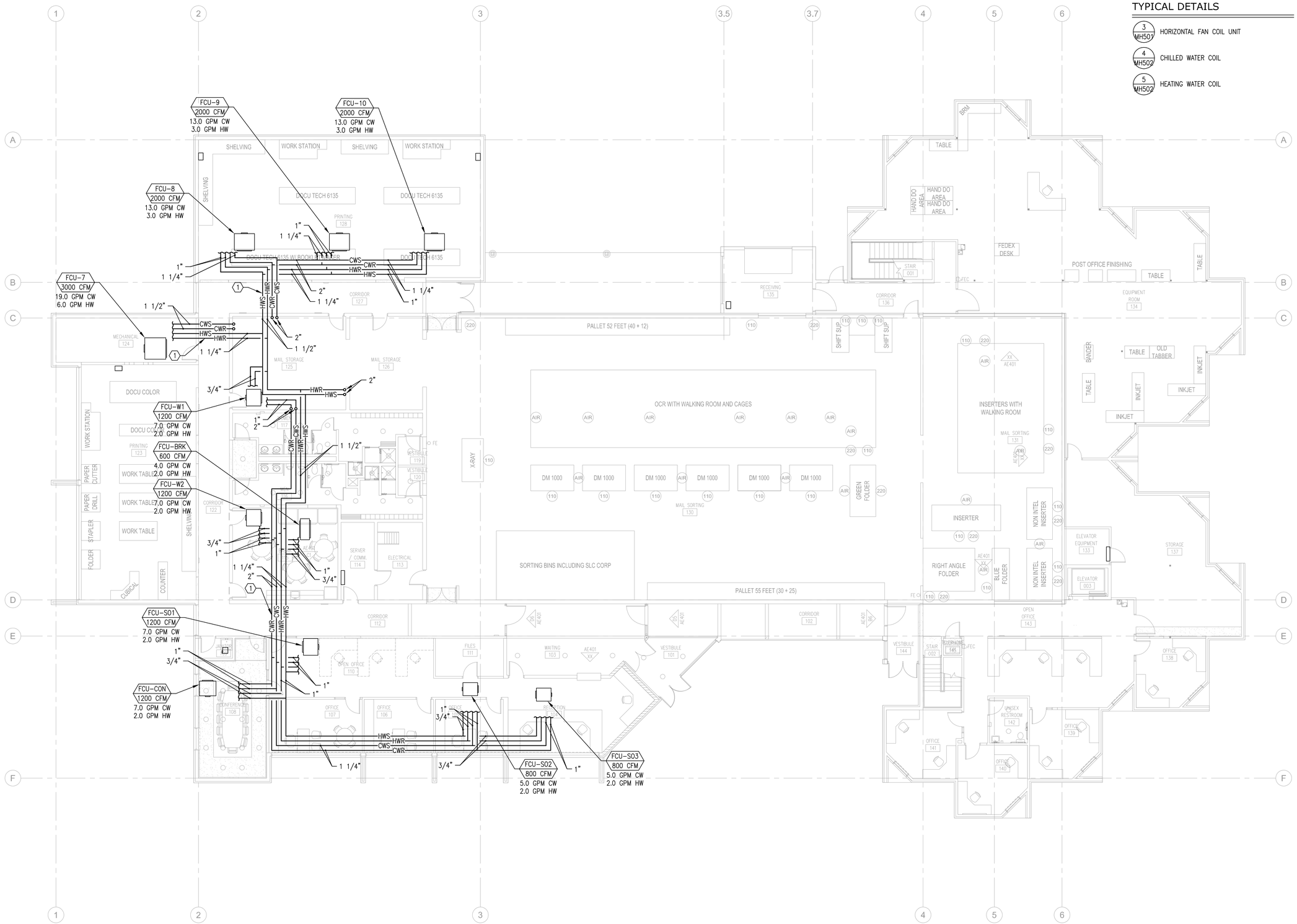
(1) RUN MECHANICAL PIPING OVER BEAMS
PROVIDE WHITE PVC JACKET ON VISIBLE PIPING

TYPICAL DETAILS

(3/MH501) HORIZONTAL FAN COIL UNIT

(4/MH502) CHILLED WATER COIL

(5/MH502) HEATING WATER COIL



1 / MP101 MECHANICAL PIPING MAIN LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

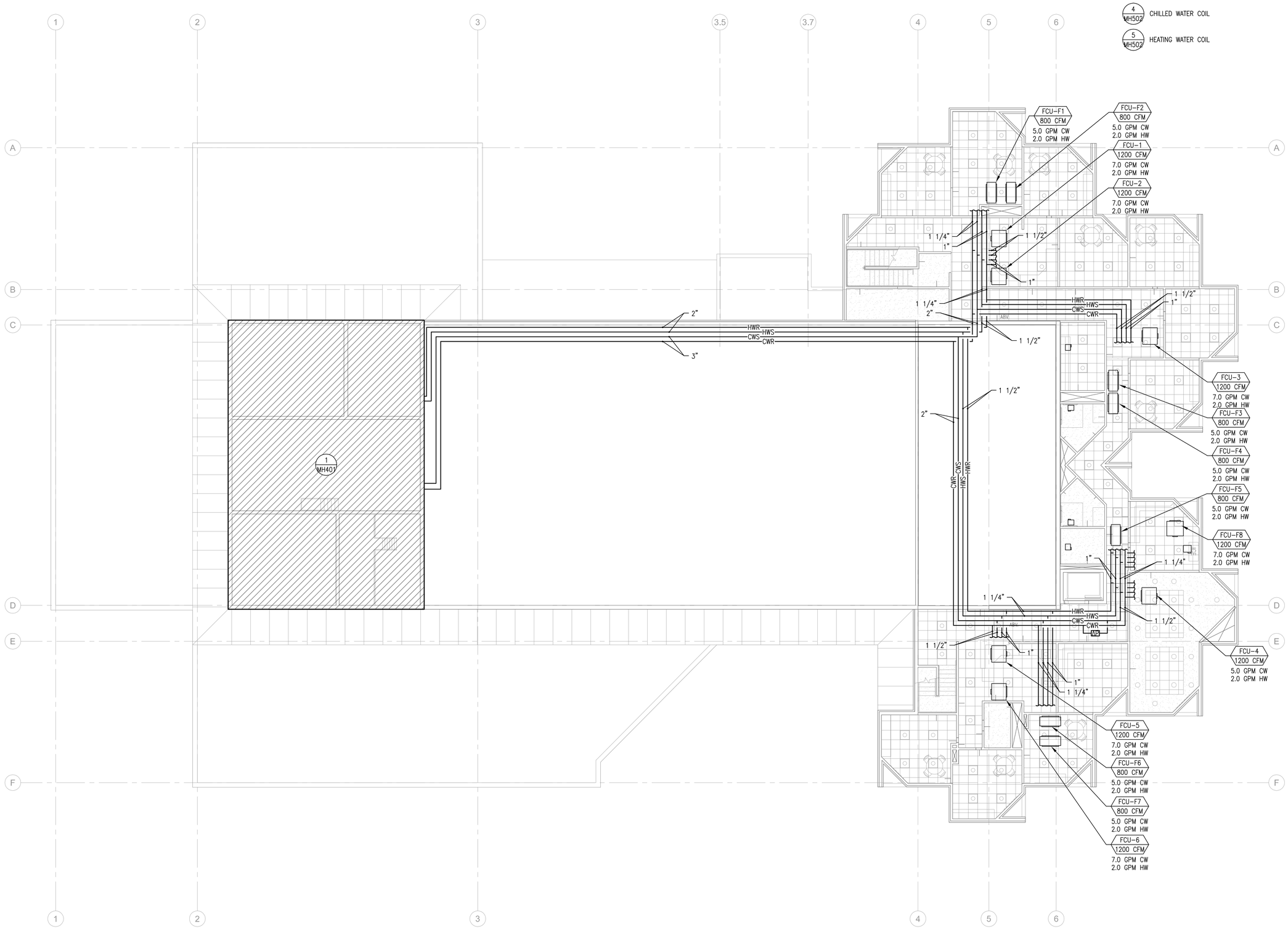
MECHANICAL PIPING MAIN LEVEL FLOOR PLAN

MP 101

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

TYPICAL DETAILS

- 3 / MH501 — HORIZONTAL FAN COIL UNIT
- 4 / MH502 — CHILLED WATER COIL
- 5 / MH502 — HEATING WATER COIL



1 / MP102 MECHANICAL PIPING UPPER LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

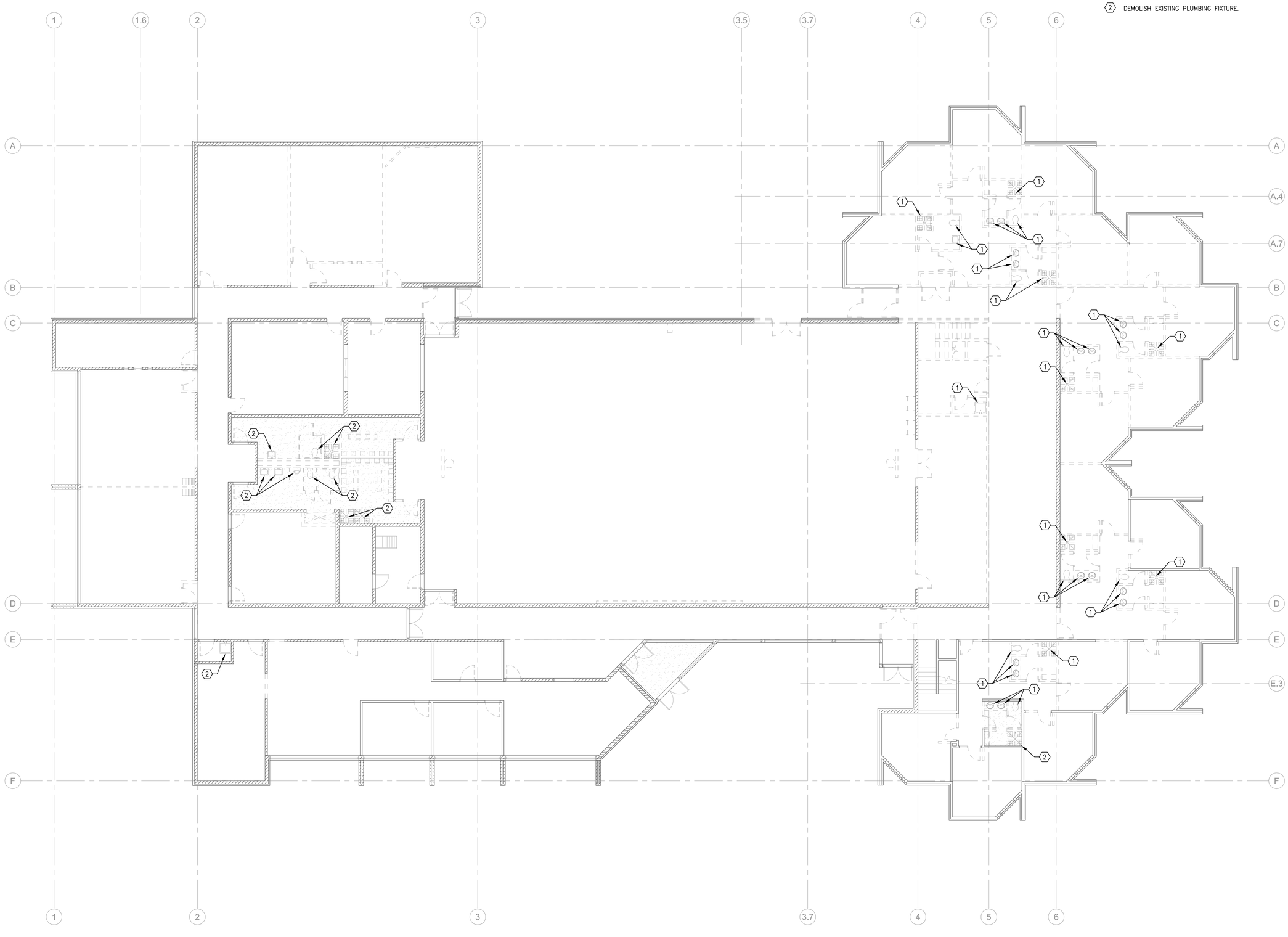
MECHANICAL PIPING UPPER LEVEL FLOOR PLAN

MP 102

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

1. DEMOLISH EXISTING PLUMBING FIXTURE AND CAP ASSOCIATED PIPING.
2. DEMOLISH EXISTING PLUMBING FIXTURE.



1 / PD101 PLUMBING MAIN LEVEL DEMOLITION PLAN

8' 4' 2' 0 8' 16'
SCALE: 1/8" = 1'-0"

NORTH

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

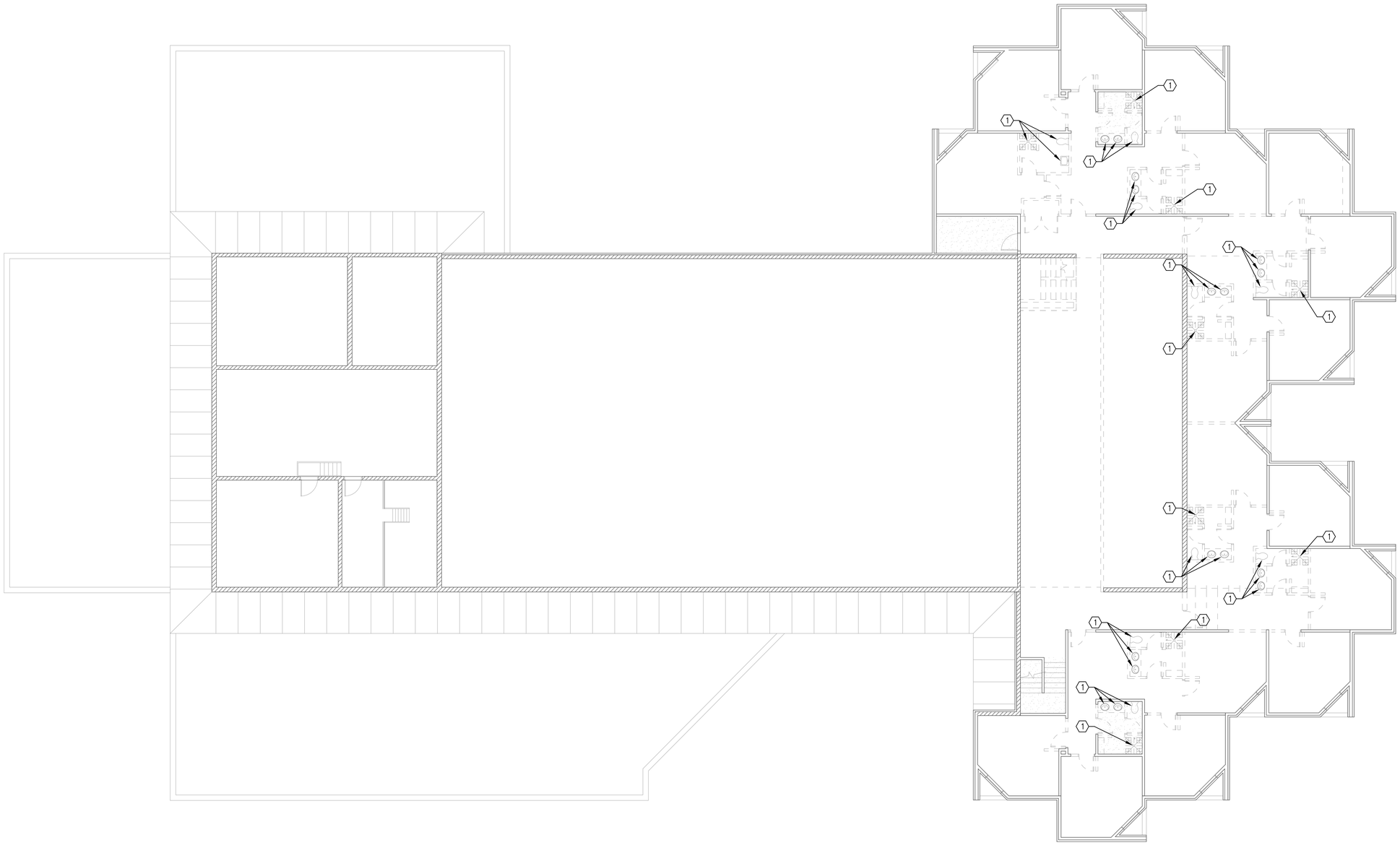
PLUMBING MAIN LEVEL DEMOLITION PLAN

PD 101

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

1. DEMOLISH EXISTING PLUMBING FIXTURE AND CAP ASSOCIATED PIPING.
2. DEMOLISH EXISTING PLUMBING FIXTURE.



1 / PD102 PLUMBING UPPER LEVEL DEMOLITION PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

PLUMBING UPPER LEVEL DEMOLITION PLAN

PD 102

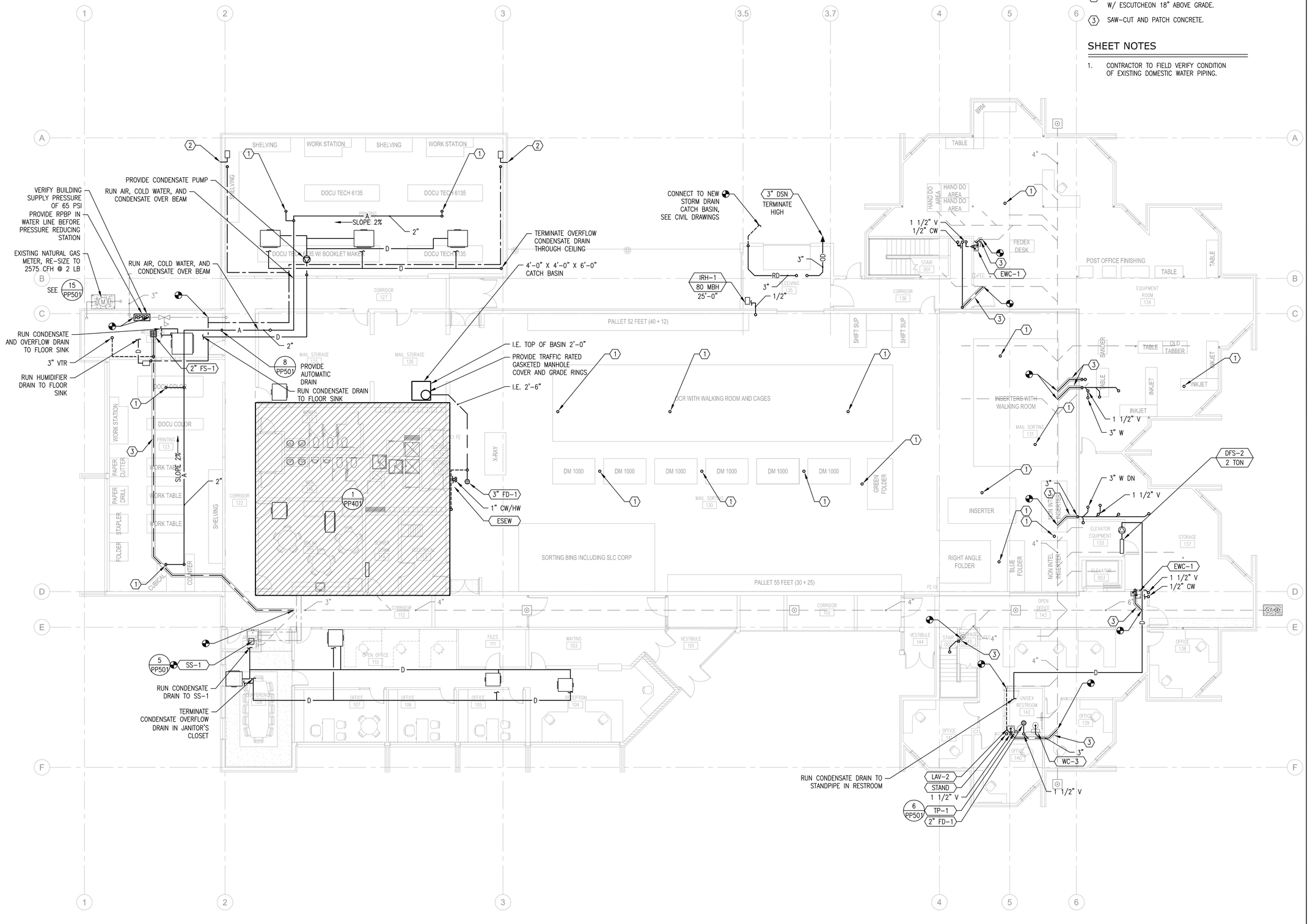
THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

1. 3/4" COMPRESSED AIR DROP TERMINATE W/ BALL VALVE 8'-0" AFF.
2. TERMINATE HUMIDIFIER DRAIN THROUGH WALL W/ ESCUTCHEON 18" ABOVE GRADE.
3. SAW-CUT AND PATCH CONCRETE.

SHEET NOTES

1. CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING DOMESTIC WATER PIPING.



1 PP101 PLUMBING MAIN LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

PLUMBING MAIN LEVEL FLOOR PLAN

PP 101

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. © SMD ENGINEERING, PLLC 2008

KEYED NOTES

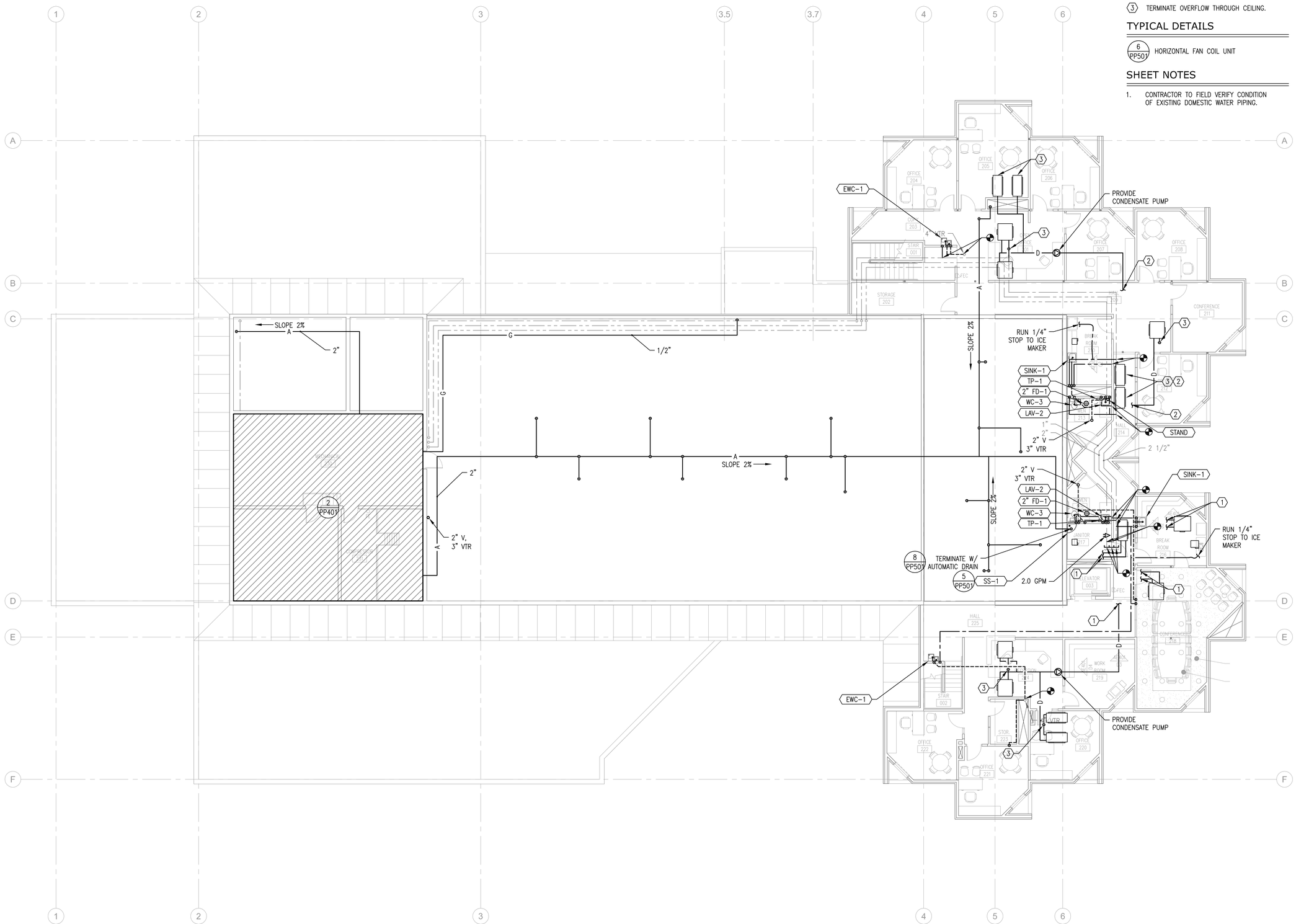
1. RUN CONDENSATE DRAIN TO SERVICE SINK.
2. RUN CONDENSATE DRAIN TO STAND PIPE.
3. TERMINATE OVERFLOW THROUGH CEILING.

TYPICAL DETAILS

6/PP501 HORIZONTAL FAN COIL UNIT

SHEET NOTES

1. CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING DOMESTIC WATER PIPING.



1/PP102 PLUMBING UPPER LEVEL FLOOR PLAN

NORTH

8' 4' 2' 0 8' 16'

SCALE: 1/8" = 1'-0"

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

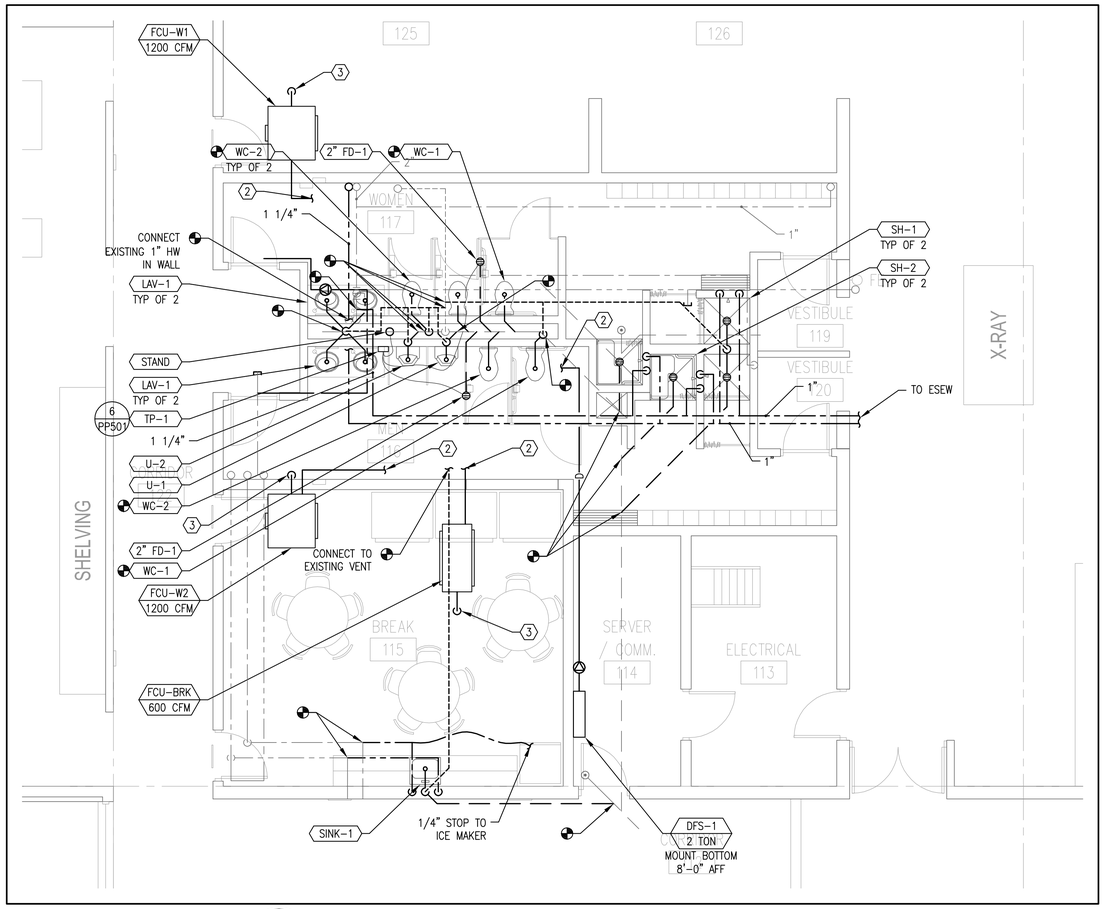
WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

PLUMBING UPPER LEVEL FLOOR PLAN

PP 102

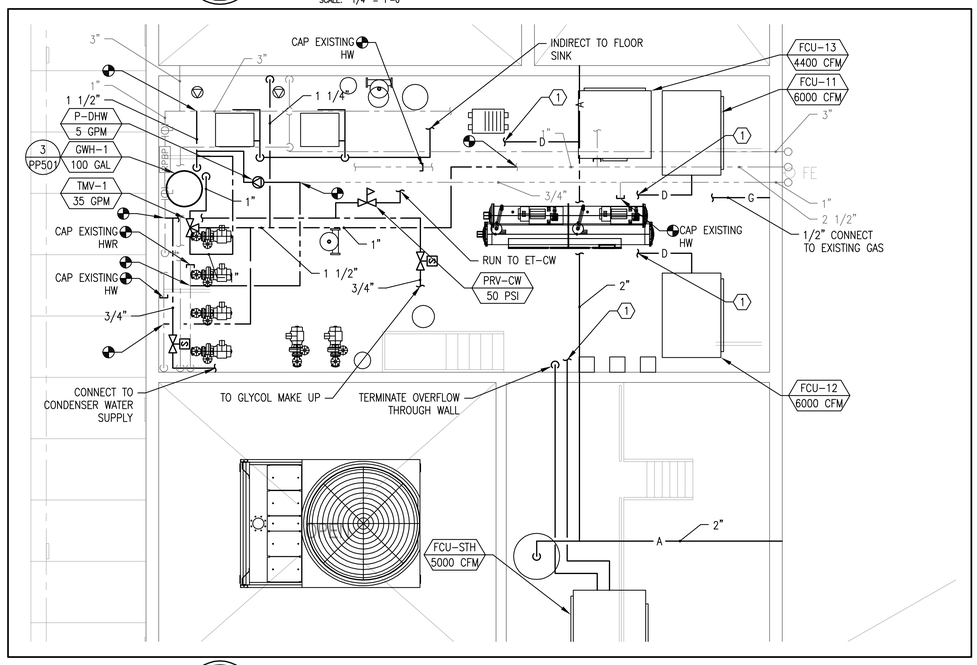


1 PP401 ENLARGED PLUMBING FIRST LEVEL FLOOR PLAN

NORTH

4' 2' 1' 0 4' 8'

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



2 PP401 ENLARGED PLUMBING UPPER LEVEL FLOOR PLAN

NORTH

4' 2' 1' 0 4' 8'

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

KEYED NOTES

1. INDIRECT CONDENSATE PIPE TO FLOOR DRAIN.
2. RUN CONDENSATE DRAIN TO STAND PIPE.
3. TERMINATE OVERFLOW THROUGH CEILING.

TYPICAL DETAILS

2 MH501 VERTICAL FAN COIL UNIT

3 MH501 HORIZONTAL FAN COIL UNIT

SHEET NOTES

1. CONTRACTOR TO FIELD VERIFY CONDITION OF EXISTING DOMESTIC WATER PIPING.

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

ENLARGED PLUMBING LEVEL FLOOR PLANS

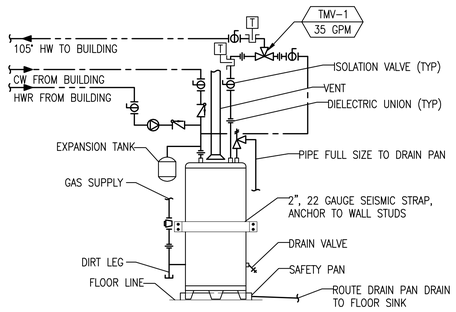
PP 401

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008
THIS DRAWING SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC.

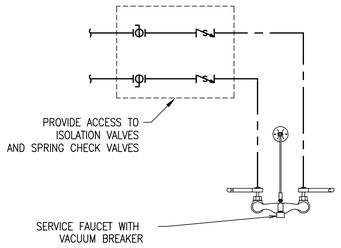
1 PP501 NOT USED

2 PP501 NOT USED



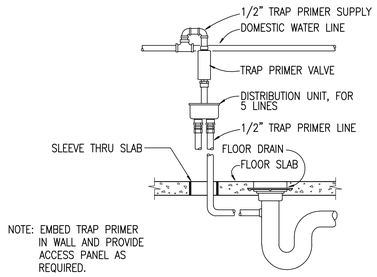
3 PP501 GAS-FIRED WATER HEATER

4 PP501 NOT USED



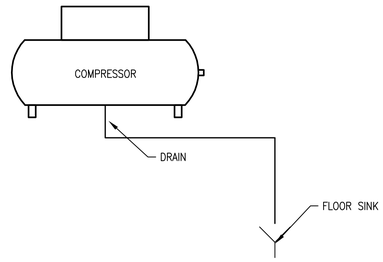
NOTE: TYPICAL ALL FAUCETS WITH HOSE END CONNECTION

5 PP501 SERVICE FAUCET PIPING

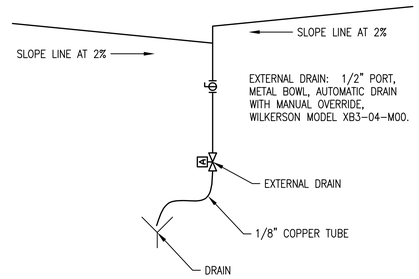


NOTE: EMBED TRAP PRIMER IN WALL AND PROVIDE ACCESS PANEL AS REQUIRED.

6 PP501 TRAP PRIMER



7 PP501 AIR COMPRESSOR CONNECTION



8 PP501 TYPICAL AIR EXTERNAL DRAIN DROP

9 PP501 NOT USED

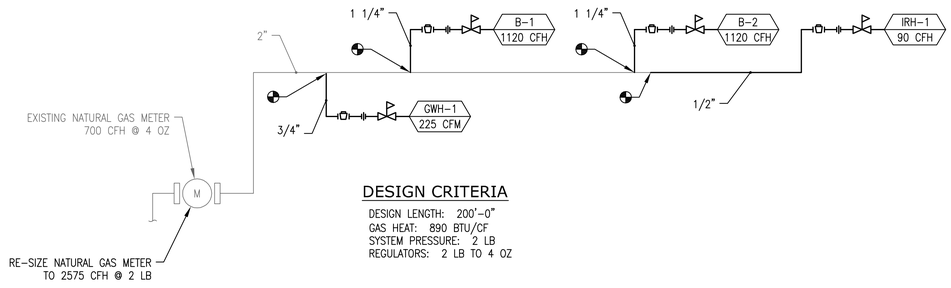
10 PP501 NOT USED

11 PP501 NOT USED

12 PP501 NOT USED

13 PP501 NOT USED

14 PP501 NOT USED



DESIGN CRITERIA

DESIGN LENGTH: 200'-0"
GAS HEAT: 890 BTU/CF
SYSTEM PRESSURE: 2 LB
REGULATORS: 2 LB TO 4 OZ

15 PP501 GAS PIPING DIAGRAM

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

PLUMBING DETAILS

PP 501

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF SMD ENGINEERING, PLLC AND SHALL NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE PERMISSION OF SMD ENGINEERING, PLLC. THE INFORMATION, DESIGN, OR CONCEPTS REPRESENTED ON THIS DRAWING ARE CONFIDENTIAL AND ARE NOT FOR GENERAL DISTRIBUTION. © SMD ENGINEERING, PLLC 2008

MIXING VALVE SCHEDULE (TMV)

TMV / GPM

MARK	MIN GPM	MAX GPM	DESIGN GPM	PD PSI	MANUFACTURER MODEL	REMARKS
TMV-1	0.5	38	35	10	SYMMONS TEMPCONTROL 5-500	THERMOSTATIC MIXING VALVE

GAS FIRED WATER HEATER SCHEDULE (GWH)

GWH / GAL

MARK	INPUT MBH	OUT. MBH	EFF. %	FUEL	TANK GAL	REC. GPH	TEMP. RISE °F	OPER. TEMP. °F	FLUE		DIMENSIONS			ELECTRICAL		MANUFACTURER MODEL	REMARKS
									D IN	TYPE	D IN	H IN	WT LBS	VOLT/ PHASE	AMP		
GWH-1	199	139	94	NAT. GAS	100	202	90	140	3	PVC	28	56	438	N/A	N/A	A. O. SMITH BTH-199	W/ CONCENTRIC VENT TERMINATION, WATER HEATER SAFETY PAN, AND AMTROL ST-12-C EXPANSION TANK

PRV SCHEDULE (PRV)

PRV / SETTING

MARK	SIZE	GPM	PD PSI	SETTING PSI	MANUFACTURER MODEL
PRV-CW	3/4	21	10	50	WATTS 223S

PLUMBING FIXTURE SCHEDULE

FIXTURE

MARK	FIXTURE	ROUGH IN SIZE					MANUFACTURER MODEL	REMARKS
		WASTE IN	TRAP IN	VENT IN	HW IN	CW IN		
WC-1	WATER CLOSET, WALL MOUNTED, MANUAL FLUSH VALVE ADA COMPLIANT	3	2	1-1/2	N/A	1	AMERICAN STANDARD "AFWALL" MOUNT 17" H W/ ZURN Z6000-WS1	VITREOUS CHINA, 1.6 GPF, 17" FLOOR TO RIM, 10" ROUGH IN, ELONGATED BOWL, COMPLIES WITH ASME A112.19.2M. W/ OLSENITE #95 OPEN FRONT SEAT LESS COVER, FLUSH VALVE AND CARRIER.
WC-2	WATER CLOSET, WALL MOUNTED, MANUAL FLUSH VALVE	3	2	1-1/2	N/A	1	AMERICAN STANDARD "AFWALL" MOUNT 15" H W/ ZURN Z6000-WS1	VITREOUS CHINA, 1.6 GPF, 17" FLOOR TO RIM, 10" ROUGH IN, ELONGATED BOWL, COMPLIES WITH ASME A112.19.2M. W/ OLSENITE #95 OPEN FRONT SEAT LESS COVER, FLUSH VALVE AND CARRIER.
WC-3	WATER CLOSET, FLOOR MOUNTED, TANK TYPE, ADA COMPLIANT	3	2	1-1/2	N/A	1/2	TOTO "DRAKE" CST744SL	WHITE VITREOUS CHINA, 1.6 GPF, 3" FLUSH VALVE, 17" FLOOR TO RIM, 12" ROUGH IN, ELONGATED BOWL, W/OLSENITE #95 OPEN FRONT SEAT LESS COVER, CHROMED ANGLE STOP AND CHROMED BRASS SUPPLY.
U-1	URINAL, ADA COMPLIANT, WALL MOUNTED, W/ MANUAL FLUSH VALVE	2	2	1-1/2	N/A	3/4	AMERICAN STANDARD "WASHBROOK" W/ ZURN Z6003 FLUSH VALVE	VITREOUS CHINA, 1.0 GPF 19" W X 27" H X 14" D, WASHOUT FLUSH ACTION, LOW CONSUMPTION URINAL WITH 3/4" MANUAL FLUSH VALVE AND WALL CARRIER. SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING ELEVATION.
U-2	URINAL, WALL MOUNTED, W/ MANUAL FLUSH VALVE	2	2	1-1/2	N/A	3/4	AMERICAN STANDARD "WASHBROOK" W/ ZURN Z6003 FLUSH VALVE	VITREOUS CHINA, 1.0 GPF 19" W X 27" H X 14" D, WASHOUT FLUSH ACTION, LOW CONSUMPTION URINAL WITH 3/4" MANUAL FLUSH VALVE AND WALL CARRIER. SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING ELEVATION.
LAV-1	LAVATORY, COUNTER MOUNTED, ADA COMPLIANT W/ SINGLE CONTROL LAV FAUCET	1-1/2	1 1/4	1-1/2	1/2	1/2	AMERICAN STANDARD "CADET" LAVATORY W/ "SEVA" FAUCET	VITREOUS CHINA 18"X21" OVAL COUNTERTOP LAVATORY W/ SINGLE CONTROL LAV FAUCET, FAUCET HOLES ON 4" CENTERS, GRID STRAINER, CHROMED ANGLE STOPS, CHROMED BRASS SUPPLIES, CHROMED BRASS "P" TRAP, AND ADA COMPLIANT INSULATION KIT.
SINK-1	SINK, SINGLE COMPARTMENT, STAINLESS STEEL, COUNTER MOUNTED, W/ GOOSENECK FAUCET	1-1/2	1 1/4	1-1/2	1/2	1/2	ELKAY DLR252110 SINK W/ LK2442 FAUCET, AND LK99 STRAINER	STAINLESS STEEL COUNTERTOP SINK, INSIDE BOWL 21"X16"X10" W/ 10" GOOSENECK FAUCET, STRAINER, CHROMED ANGLE STOPS, CHROMED BRASS SUPPLIES, AND CHROMED BRASS "P" TRAP.
SH-1	ADA COMPLIANT SHOWER VALVE W/ HAND SPRAY, SLIDE BAR, AND SHOWER DRAIN	2	2	1-1/2	1/2	1/2	SYMMONS TEMPTROL SHOWER SYSTEM W/ HAND SPRAY AND TWO ZURN SHOWER DRAINS FD-2254-NH2-R5	PRESSURE BALANCED SHOWER VALVE W/ INTEGRAL SERVICE STOPS, HAND SPRAY, 30" SLIDE BAR. TWO (2) SHOWER DRAINS W/ CAST IRON BODY, CLAMPING COLLER, AND ADJUSTABLE NICKEL BRONZE STRAINER ASSEMBLY.
SH-2	SHOWER VALVE W/ HAND SPRAY AND SHOWER DRAIN	2	2	1-1/2	1/2	1/2	SYMMONS TEMPTROL SHOWER SYSTEM W/ HAND SPRAY AND TWO ZURN SHOWER DRAINS FD-2254-NH2-R5	PRESSURE BALANCED SHOWER VALVE W/ INTEGRAL SERVICE STOPS, HAND SPRAY. TWO (2) SHOWER DRAINS W/ CAST IRON BODY, CLAMPING COLLER, AND ADJUSTABLE NICKEL BRONZE STRAINER ASSEMBLY.
ESEW	EMERGENCY SHOWER AND EYEWASH, STAINLESS STEEL	2	1 1/4	1-1/2	X	1 1/4	HAWS 8330	STAINLESS STEEL COMBINATION SHOWER AND EYE/FACE WASH W/ TWIN STAINLESS STEEL SOFT-FLO EYEWASH HEADS, STAINLESS STEEL DUST COVER, PULL RING, FOOT TREADLE, AND "FACTORY" THERMOSTATIC MIXING VALVE.
EWC-1	ELECTRIC WATER COOLER, TWO STATION, ADA COMPLIANT	1-1/2	1 1/2	1-1/2	N/A	1/2	ELKAY EZSTL8C	W/ FRONT AND SIDE CONTROLS, 9.6 GPH 50°F DRINKING WATER, 120V/1ø/3.7A, CHROMED ANGLE STOP, CHROMED BRASS "P" TRAP, AND CHROMED BRASS SUPPLY.
SS-1	SERVICE SINK, ENAMELED CAST IRON	3	3	1-1/2	1/2	1/2	AMERICAN STANDARD FLORWELL W/FAUCET 8344.112	28"X28"X13" DEEP ENAMELED CAST IRON SERVICE SINK W/ FLAT GRID DRAIN, REMOVABLE VINYL-COATED RIM GUARD, HOSE AND HOSE BRACKET. POLISHED CHROME FAUCET W/TOP BRACE, STOPS AND VACUUM BREAKER.
HB-1	HOSE BIBB	N/A	N/A	N/A	N/A	3/4	ZURN Q1343	ROUGH BRONZE LAWN FAUCET.
WH-1	FREEZELESS WALL HYDRANT	N/A	N/A	N/A	N/A	3/4	WOODFORD MFG 65	W/ LOOSE KEY, AND INTEGRAL VACUUM BREAKER.
TP-1	TRAP PRIMER	N/A	N/A	N/A	N/A	1/2	PPP 500	TRAP PRIMER.
RD	ROOF DRAIN	X	N/A	N/A	N/A	N/A	ZURN RD2131-AL "X" INDICATED ON DRAWINGS	CAST IRON ROOF DRAIN W/ ALUMINUM DOME STRAINER AND INTEGRAL GRAVEL GUARD.
OD	ROOF OVERFLOW DRAIN	X	N/A	N/A	N/A	N/A	ZURN RD2132-AL "X" INDICATED ON DRAWINGS	CAST IRON OVERFLOW ROOF DRAIN W/ ALUMINUM DOME STRAINER AND INTEGRAL GRAVEL GUARD.
DSN	DOWNSPOUT NOZZLE	X	N/A	N/A	N/A	N/A	ZURN ZARB-199 "X" INDICATED ON DRAWINGS	DOWNSPOUT NOZZLE, ROUGH BRONZE BODY, THREADED INLET, DECORATIVE FACE, AND BIRDSCREEN.
FD-1	FLOOR DRAIN	X	X	X/2 2" MIN	N/A	N/A	ZURN FD-2321-NH"X" "X" INDICATED ON DRAWINGS	CAST IRON BODY, ADJUSTABLE NICKEL BRONZE STRAINER ASSEMBLY, MEMBRANE CLAMP, WEEP HOLES, AND TRAP PRIMER CONNECTION.
FS-1	FLOOR SINK 6" DEEP	2	2	1-1/2	N/A	N/A	ZURN FD-2375-Y	CAST IRON, 12"X12"X6" DEEP, 1/2 GRATE, WHITE ACID RESISTING INTERIOR, PVC DOME STRAINER, AND SEDIMENT BUCKET.
STAND	STANDPIPE	2	2	1-1/2	N/A	N/A	N/A	PROVIDE TRAP PRIMER.

SMD ENGINEERING, PLLC
"Engineered Mechanical Solutions"
986 WEST ATHERTON DRIVE, SUITE 200
TAYLORSVILLE, UTAH 84123
(801) 268-3828, FAX (801) 268-3297
WWW.SMDENGINEERING.COM

CONSTRUCTION DOCUMENTS

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
01 · 13 · 09	20080512

PLUMBING SCHEDULES

PP 601

SYMBOL LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
A5 / E-501	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
A5 / E-201	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
A5 / E-201	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
100	ROOM OR SPACE NUMBER.
1	KEYNOTE INDICATOR.
1	REVISION INDICATOR.
CU-1	EQUIPMENT INDICATOR.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING.
	BREAK, ROUND.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE.
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE.
WIRING METHODS	
	WIRING.
A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN SECTION 16120.
1 A-1,3,5	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN SECTION 16120.
— X —	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = : CATV = CABLE TELEVISION CCTV = CLOSED CIRCUIT TELEVISION FA = FIRE ALARM FO = FIBER OPTICS I = INTERCOM NC = NURSE CALL P = POWER RC = RIGID CONDUIT S = SOUND T = TELEPHONE TV = TELEVISION OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
1	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	JUNCTION BOX.
SC	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION.
SP	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.
C C	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	EARTH GROUND (ONE-LINE DIAGRAM).
C	JUNCTION BOX, CEILING.
	LADDER RACK.
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)	
(W-3)	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
(W-3)	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
EM	EMERGENCY.
NL	NIGHT LIGHT: DO NOT SWITCH.
	EGRESS DIRECTION ARROW.
LV	LOW VOLTAGE LIGHTING TRANSFORMER.
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL.
U	OCCUPANCY SENSOR, ULTRASONIC, OMNI-DIRECTIONAL, CEILING.
R	OCCUPANCY SENSOR CONTROL RELAY.
P	PHOTOCELL.
TC	TIME CLOCK.
STRUCTURED CABLING	
X	TELEPHONE, WALL MOUNTED ("X" INDICATES QUANTITY OF CABLES).
W	TELEPHONE, WALL MOUNTED: WALL PHONE.
X	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/DATA COMMUNICATION.
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.
	LAN RACK, FLOOR STANDING.
D	DATA CABLE, CATEGORY 5 (ONE-LINE DIAGRAM).
V	VOICE CABLE, CATEGORY 3 (ONE-LINE DIAGRAM).

SYMBOL LEGEND

SYMBOL	DESCRIPTION
WIRING DEVICES	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
A	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
C	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
D	RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: NEMA 5-20R.
DF	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
WP	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
A	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
P	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
C	MULTI-OUTLET ASSEMBLY: COMMUNICATIONS.
D	DROP CORD. SEE DETAIL.
FB#	FLUSH FLOOR BOX. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN SECTION 16140 FOR CONFIGURATION AND DEVICES.
PP#	POWER POLE. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN SECTION 16140 FOR CONFIGURATION AND DEVICES.
PT#	FLUSH FIRE RATED POKE THRU. "#" SHOWN ON DRAWINGS. REFER TO WIRING DEVICE SCHEDULE IN SECTION 16140 FOR CONFIGURATION AND DEVICES.
	SWITCH, DIMMER.
X $	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED).
X $3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
X $4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
FIRE ALARM	
FSA	FIRE SYSTEM ANNUNCIATOR.
FCP	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
CM	CONTROL MODULE.
MM	MONITOR MODULE.
P	FIRE ALARM MANUAL PULL STATION.
R	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
	MAGNETIC DOOR HOLDER.
	DETECTOR, SMOKE.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
	DETECTOR, HEAT.
75	STROBE. SUBSCRIPT INDICATES CANDELA RATING.
WP	ALARM, HORN/SPEAKER, WEATHERPROOF.
E	SPEAKER, EVACUATION.
E	SPEAKER, EVACUATION, COMBINATION STROBE.
	DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
SD	SMOKE DAMPER.
FSD	FIRE AND SMOKE DAMPER.
CCTV	
P	CCTV CABLE, POWER.
V	CCTV CABLE, VIDEO SIGNAL.
CCTV	CCTV HEADEND EQUIPMENT.
M	CCTV MONITOR.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.
PTZ	CCTV CAMERA WITH PAN, TILT AND ZOOM.
360°	PANNING CAMERA TRANSVERSE ANGLE.
TECHNOLOGY SYSTEMS	
X	TECHNOLOGY SYSTEM CABLE. SEE SPECIFIC JOB EQUIPMENT LIST FOR APPLICABLE DESIGNATIONS. EXAMPLES: C = CONTROL CABLE G = GROUND CABLE, 10 AWG, 1 CONDUCTOR, GREEN INSULATED L = LINE LEVEL CABLE M = MICROPHONE CABLE S = SPEAKER CABLE, 70 VOLT SYSTEM Z = SPEAKER CABLE, 8 OHM SYSTEM
S #	SPEAKER, CEILING MOUNTED.
S #	SPEAKER, WALL MOUNTED.
	SCREEN, PROJECTION, CEILING MOUNTED.
	PROJECTOR, CEILING MOUNTED.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
	FUSE WITH RATING (ONE-LINE DIAGRAM).
	DISCONNECT, FUSED (ONE-LINE DIAGRAM).
	DISCONNECT, NONFUSED (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, MOLDED CASE WITH SHUNT TRIP (ONE-LINE DIAGRAM).
	CIRCUIT BREAKER, SOLID STATE (ONE-LINE DIAGRAM).
GFP	CIRCUIT BREAKER, SOLID STATE WITH GROUND FAULT PROTECTION (ONE-LINE DIAGRAM).
	MOTOR.
	TRANSFORMER (ONE-LINE DIAGRAM).
225/3 "1H"	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
225/3 "1H" 60/3	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
225/3 "1H" "1H"	PANELBOARD WITH CIRCUIT BREAKER AND SUB FEED LUGS (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	TRANSFER SWITCH (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
G	GENERATOR, POWER (ONE-LINE DIAGRAM).
M	METER.
VFC VFD	VARIABLE FREQUENCY MOTOR CONTROLLER (ONE-LINE DIAGRAM).
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
	PUSHBUTTON.
	PUSHBUTTONS, MOTOR CONTROL.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
DP#	DISTRIBUTION PANEL OR SWITCHBOARD.
$ST	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
75	TRANSFORMER: NUMBER INDICATES kVA.
SECURITY	
X	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FOR CABLE TYPE.
ACC	ACCESS CONTROL HEADEND EQUIPMENT.
CTR	SECURITY CONTROL PANEL.
SEC	INTRUSION DETECTION HEADEND EQUIPMENT.
#1	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE SCHEDULE.
CR	CARD READER.
	SENSOR, GLASS BREAK.
TV DISTRIBUTION	
	TV OUTLET.

ELECTRICAL SHEET INDEX

SHEET NO	SHEET TITLE
EE001	SYMBOL LEGEND, SHEET INDEX & ABBREVIATIONS
EE501	DETAILS
ES101	ELECTRICAL SITE PLAN
ED101	DEMOLITION PLAN FOR EXISTING FIRST FLOOR LIGHTING PLAN
ED102	DEMOLITION PLAN FOR EXISTING SECOND FLOOR LIGHTING PLAN
ED103	DEMOLITION PLAN FOR EXISTING FIRST FLOOR POWER PLAN
ED104	DEMOLITION PLAN FOR EXISTING SECOND FLOOR POWER PLAN
ED105	REFERENCE FIRE ALARM RISER AUDIO VISUAL ELECTRICAL LAYOUT
ED106	REFERENCE LIGHTING FIXTURE & PANEL SCHEDULES
ED107	REFERENCE ONE-LINE RISER, MECHANICAL SCHEDULE, PAD DETAIL, SYMBOL LEGEND
EP101	MAIN LEVEL POWER PLAN
EP102	UPPER LEVEL POWER PLAN
EP103	ROOF POWER PLAN
EP401	ENLARGED POWER PLANS
EP601	ONE-LINE DIAGRAM
EP602	EQUIPMENT SCHEDULES
EP603	PANEL SCHEDULES
EL101	MAIN LEVEL LIGHTING PLAN
EL102	UPPER LEVEL LIGHTING PLAN
EL601	LIGHTING FIXTURE SCHEDULE
ET101	MAIN LEVEL TECHNOLOGY PLAN
ET102	UPPER LEVEL TECHNOLOGY PLAN
ET601	TECHNOLOGY DETAILS & DIAGRAMS
FA101	MAIN LEVEL FIRE ALARM PLAN
FA102	UPPER LEVEL FIRE ALARM PLAN
FA601	FIRE ALARM RISER

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

1P	SINGLE POLE
1PH	SINGLE-PHASE
1WAY	ONE-WAY
2/C	TWO-CONDUCTOR
2WAY	TWO-WAY
3/C	THREE-CONDUCTOR
3PH	THREE-PHASE
3WAY	THREE-WAY
4OUT	QUADRUPLE RECEPTACLE OUTLET
4PDT	FOUR-POLE DOUBLE THROW
4PST	FOUR-POLE SINGLE THROW
4W	FOUR-WIRE
4WAY	FOUR-WAY
A	ABOVE COUNTER
AC	ARMORED CABLE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ALUM	ALUMINUM
AMP	AMPERE
ANN	ANNUNCIATOR
AP	ACCESS POINT (WIRELESS DATA)
AR	AS REQUIRED
ASC	AMPS SHORT CIRCUIT
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAGE
BB XFMR	BUCK-BOOST TRANSFORMER
C	CEILING MOUNTED
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT
CCTV	CLOSED CIRCUIT TELEVISION
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT
CF/CI	CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CKT	CIRCUIT
CM	CONSTRUCTION MANAGER
CND	CONDUIT
CO	CONVENIENCE OUTLET
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
dBA	UNIT OF SOUND LEVEL
DPDT	DOUBLE POLE DOUBLE THROW
DS	DISCONNECT SWITCH
EA	EACH
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENT	ELECTRICAL NONMETALLIC TUBING
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EX	EXISTING
F	FURNITURE MOUNTED
FA	FIRE ALARM
FCP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METALCONDUIT
FOB	FREIGHT ON BOARD
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HD	HEAVY DUTY
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HZ	HERTZ
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IN/IS	INSULATED/ISOLATED
I/O	INPUT/OUTPUT
IR	INFRARED
J-BOX	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT
kWh	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTION
MDP	MAIN DISTRIBUTION PANEL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCP	OVER CURRENT PROTECTION
OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/ OWNER INSTALLED
OFP	OBTAIN FROM PLANS
OH DR	OVERHEAD (COILING) DOOR
OL	OVERLOAD
PB	PUSHBUTTON
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PTZ	PAN/TILT/ZOOM
QTY	QUANTITY
R	REMOVE
RCP	REFLECTED CEILING PLAN
RMC	RIGID METAL CONDUIT
RNC	RIGID NONMETALLIC CONDUIT
RPM	REVOLUTIONS PER MINUTE
RR	REMOVE AND RELOCATE
SCA	SHORT CIRCUIT AMPS
SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
SF	SQUARE FOOT (FEET)
SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
S/S	START/STOP
ST	SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TL	TWIST LOCK
TP	TELEPHONE POLE
TP	TWISTED PAIR
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UF	UNDERFLOOR
UGND	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERE
VFC/VFD	VARIABLE FREQUENCY MOTOR CONTROLLER
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS; IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...

GENERAL ELECTRICAL NOTES

1. CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
2. OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
   A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
   B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
   C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
4. SUBMITTALS: PROVIDE SUBMITTALS IN THREE RING BINDERS WITH JOB NAME, SUBCONTRACTOR, AND VOLUME ON THE BINDING. PREPARE TABS FOR EACH SPECIFICATION SECTION REQUIRING SUBMITTALS. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
5. REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

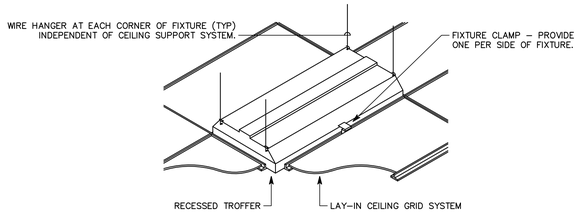
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09 (1)	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROMAR LENARD JR. STATE OF UTAH
2008-01-13

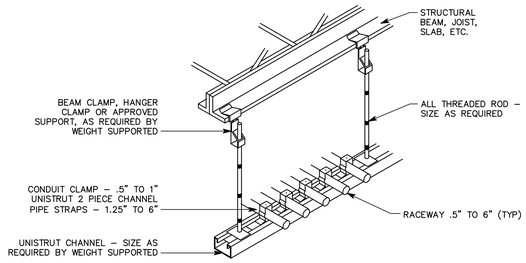
SYMBOL LEGEND, SHEET INDEX & ABBREVIATIONS

EE 001

File Name: P:\2007\20070662\1Drawings\Sheet\62EE-001.dwg Last Plotted: 2009/01/13 @ 10:44 AM By: pss

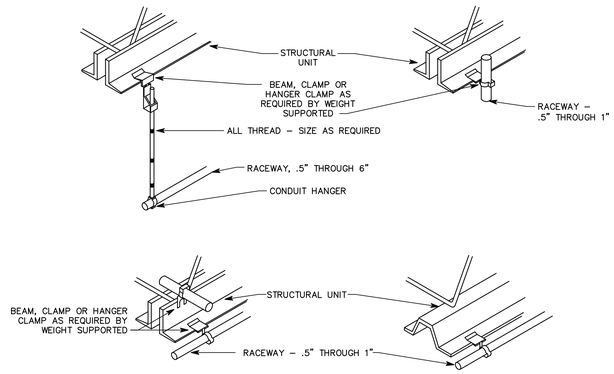


11 RECESSED FIXTURE MOUNTING DETAIL
NTS

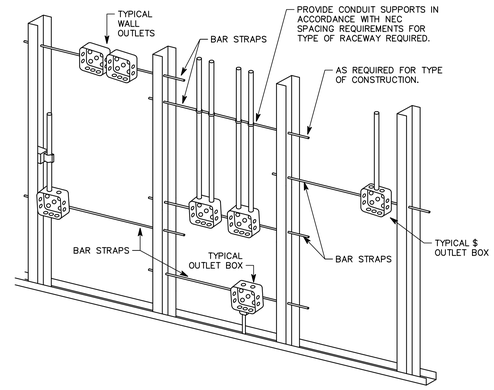


8 TYPICAL CONDUIT RACK DETAIL
NTS

NOTE:
TIE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.



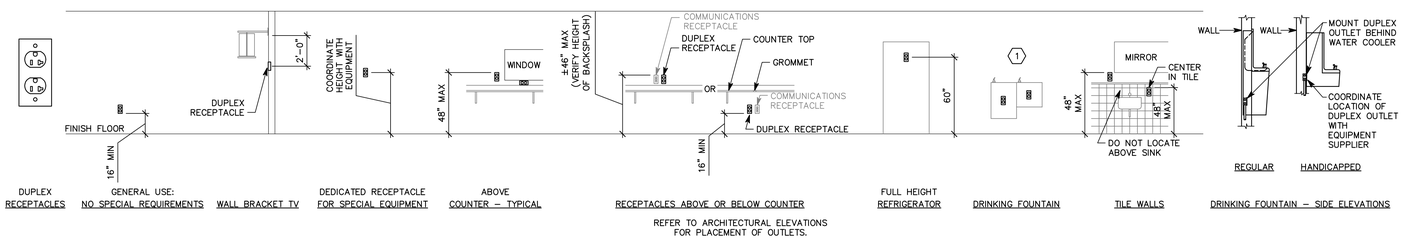
9 TYPICAL RACEWAY SUPPORT METHODS DETAIL
NTS



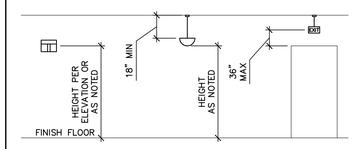
NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH IBC 711.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

10 TYPICAL ROUGH-IN REQUIREMENTS DETAIL
NTS

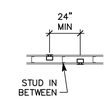


5 RECEPTACLE MOUNTING DETAILS
NTS



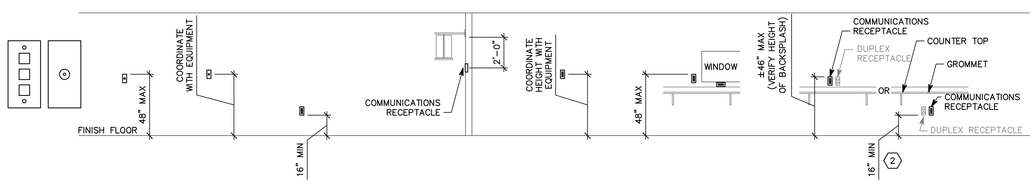
WALL MOUNTED LIGHT FIXTURE | PENDANT LIGHT FIXTURE | PENDANT EXIT SIGNS

6 LIGHTING MOUNTING DETAILS
NTS



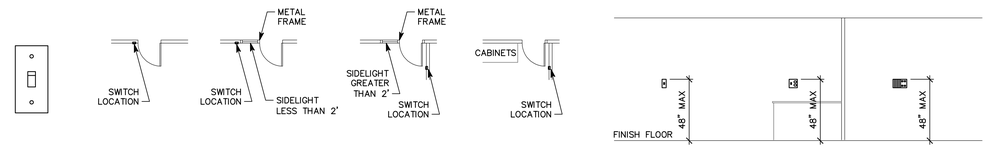
BOXES ON OPPOSITE SIDES OF WALL

7 BOX MOUNTING DETAILS
NTS



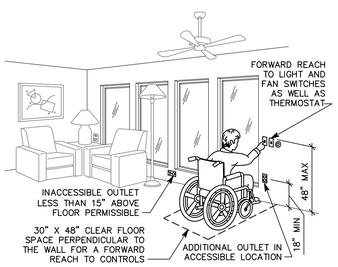
COMMUNICATION RECEPTACLES | WALL PHONE | PAY PHONE | GENERAL USE: NO SPECIAL REQUIREMENTS | WALL BRACKET TV | DEDICATED RECEPTACLE FOR SPECIAL EQUIPMENT | ABOVE COUNTER – TYPICAL | RECEPTACLES ABOVE OR BELOW COUNTER

3 COMMUNICATION MOUNTING DETAILS
NTS

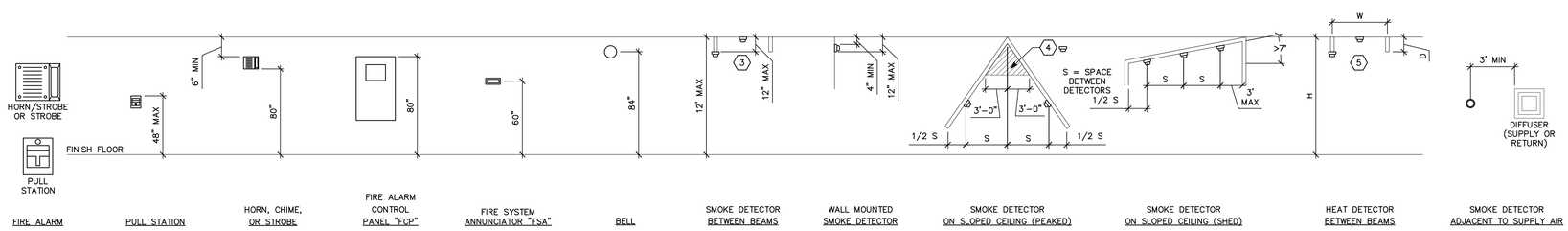


SWITCHES | STANDARD DOOR | DOOR WITH SIDELIGHT LESS THAN 2' | DOOR WITH SIDELIGHT GREATER THAN 2' | DOOR WITH NO PLACE FOR SWITCH AT LATCH SIDE | GENERAL USE: ADA | COMBINATION 48" MAX PLATE FOR SWITCH AND RECEPTACLE IN RESIDENTIAL BATHROOM | LIGHTING CONTROL STATION

4 SWITCH MOUNTING DETAILS
NTS



1 ADA DETAIL
NTS



FIRE ALARM | PULL STATION | HORN, CHIME, OR STROBE | FIRE ALARM CONTROL PANEL "FCP" | FIRE SYSTEM ANNUNCIATOR "FSA" | BELL | SMOKE DETECTOR BETWEEN BEAMS | WALL MOUNTED SMOKE DETECTOR | SMOKE DETECTOR ON SLOPED CEILING (PEAKED) | SMOKE DETECTOR ON SLOPED CEILING (SHED) | HEAT DETECTOR BETWEEN BEAMS | SMOKE DETECTOR ADJACENT TO SUPPLY AIR

2 FIRE ALARM MOUNTING DETAILS
NTS

GENERAL SHEET NOTES

1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:

   1 – ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
   2 – EQUIPMENT SHOP DRAWINGS.
   3 – FIELD INSTRUCTIONS.

2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
7. VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
8. LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.

⬡SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
4. LOCATE SMOKE DETECTOR ANYWHERE IN SHADED AREA.
5. LOCATE AT BOTTOM OF BEAMS IF EITHER D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM POCKET.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

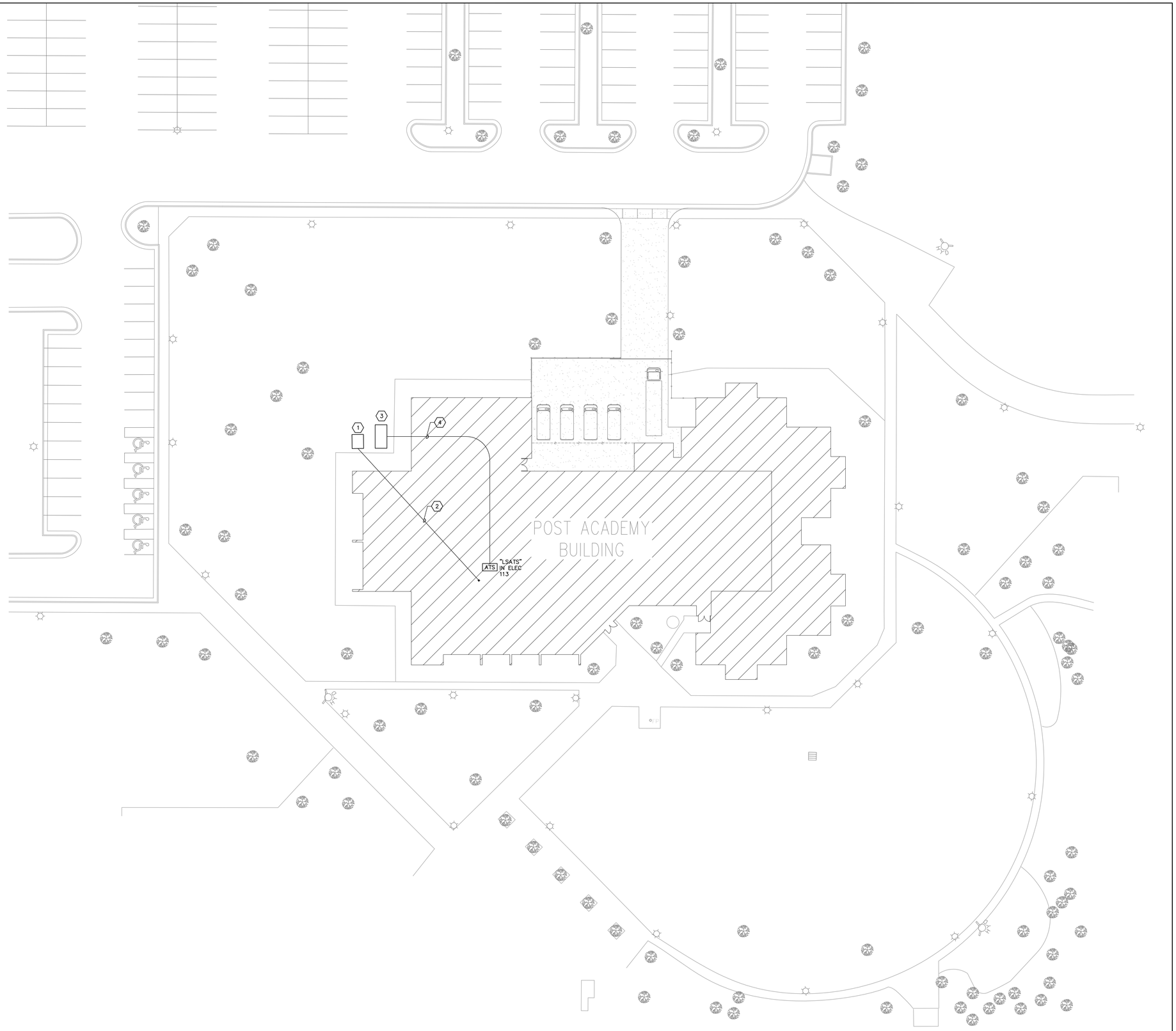
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09 ⚠1	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROMAS HENARD JR. STATE OF UTAH
2008-01-13

DETAILS

EE 501

File Name: P:\2007\20070662\1Drawings\Sheet\62EE-501.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss



1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

SHEET KEYNOTES

1. EXISTING PAD MOUNTED TRANSFORMER SHALL REMAIN.
2. EXISTING 1600A 120/208V 3ø 4W SECONDARY SERVICE INTO BUILDING TO REMAIN.
3. NEW 25KW, 120/208V 3ø 4W LIFE SAFETY GENERATOR ON CONCRETE PAD WITH NEMA 3R WEATHERPROOF ENCLOSURE.
4. SEE ONE-LINE RISER DIAGRAM FOR FEEDER SIZING. ROUTE FEEDER FOR GENERATOR UNDERGROUND TO BUILDING WEST WALL, UP WALL INTO JOIST SPACE WITH LB FITTING AND TO LIFE SAFETY AUTOMATIC TRANSFER SWITCH OVERHEAD INSIDE.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

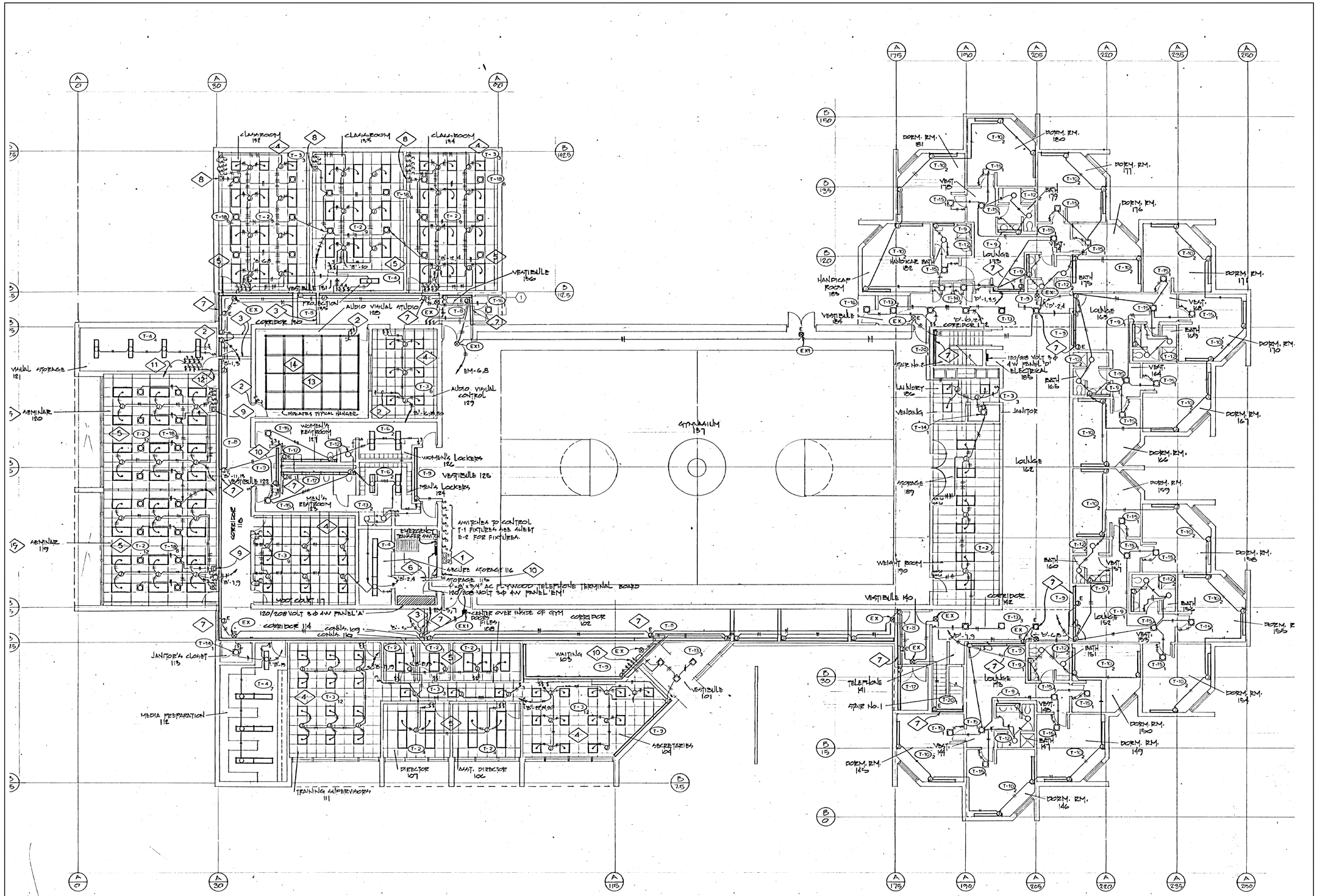
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER
No. 6563462-2202
TRUMAN HENARD JR.
STATE OF UTAH
2008-01-13

ELECTRICAL SITE PLAN

ES 101

File Name: P:\2007\20070662\1Drawings\Sheet\62ES-101.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss



REFERENCE NOTES:

1. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL (2) 'LUTRON' TYPE 'NOVA' LINEAR SLIDE CONTROL # N-1500 AND CONNECT ONE DIMMER TO ONE CIRCUIT OF T-11 TRACK LIGHT AND ONE DIMMER TO THE SECOND CIRCUIT OF T-11 TRACK LIGHT. SEE SHEET E-2 FOR LOCATION.
2. FOR CONTINUATION OF LIGHTING CIRCUIT REFER TO SHEET E-2
3. ELECTRICAL CONTRACTOR TO RUN ALL CONDUITS THAT RUN OVER HEAD, THRU IS AREA.
4. CONTRACTOR TO WIRE T-5 3 LAMP FIXTURES FOR MULTI-LEVEL SWITCHING. CONTROL THE CENTER LAMPS WITH ONE SWITCH CONTROL THE TWO OUTSIDE LAMPS WITH ONE SWITCH.
5. CONTRACTOR TO WIRE THE T-2 4 LAMP FIXTURES FOR MULTI-LEVEL SWITCHING, CONTROL THE TWO INBOARD LAMPS WITH ONE SWITCH, CONTROL THE TWO OUTBOARD LAMPS WITH ONE SWITCH.
6. SWITCH TO CONTROL STORAGE AREA LIGHTING, SEE SHEET E-2.
7. FIXTURES MARKED WITH 'E' INDICATES FIXTURES OR SECTIONS, CIRCUITED ON EMERGENCY CIRCUIT.
8. FURNISH AND INSTALL LUTRON # N-1000 LINEAR SLIDE CONTROL DIMMERS.
9. FURNISH AND INSTALL LUTRON # N-1500 LINEAR SLIDE CONTROL DIMMERS.
10. SWITCHES & COVERS THAT CONTROL EMERGENCY LIGHTING TO BE RED HIGH ABUSE WITH "EMERGENCY" ENGRAVED ON TOP OF COVER PLATE.
11. SWITCHES TO CONTROL FLUORESCENT T-2 FIXTURES IN SEMINAR #119
12. SWITCHES TO CONTROL FLUORESCENT T-2 FIXTURES IN SEMINAR #120
13. SEE SHEET E-5 FOR LIGHTING LAYOUT FOR STUDIO LIGHTING SYSTEM.
14. ELECTRICAL CONTRACTOR TO INSTALL 1½" RIGID ALUMINUM PIPE FRAME GRID, 12" BELOW T-4 WORK LIGHTS. SECURE GRID TO BUILDING STRUCTURE WITH PIPE CLAMPS AND 3/8" THREADED RODS AT EACH PIPE INTERSECTION. PROVIDE ALL NECESSARY FITTINGS FOR A COMPLETE INSTALLATION.
15. ELECTRICAL CONTRACTOR TO COORDINATE THE LIGHTING FIXTURE LAYOUTS WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. (TYPICAL)

1 DEMOLITION PLAN FOR EXISTING FIRST FLOOR LIGHTING PLAN

APPROXIMATELY 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

SHEET KEYNOTES

1. EXISTING FIXTURE, JUNCTION BOX AND FIXTURE RACEWAY SHALL REMAIN AND BE POWERED AS ILLUSTRATED ON SHEET EL-101.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

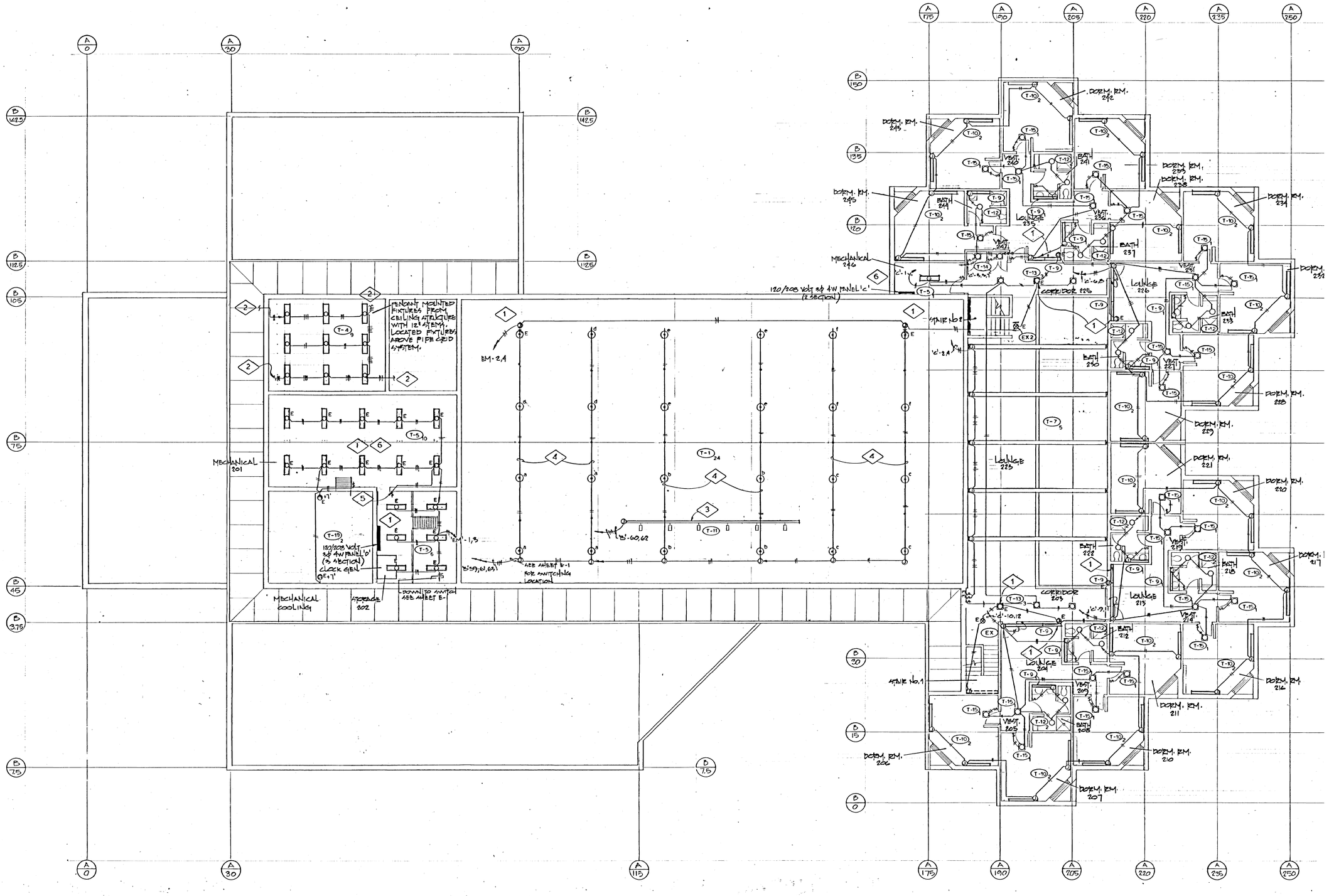
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROY W. LEWARY JR. STATE OF UTAH 2008-01-13

DEMOLITION PLAN FOR EXISTING FIRST FLOOR LIGHTING PLAN

ED 101

File Name: P:\2007\20070662\10drawings\Sheet\62ED-101.dwg Last Plotted: 2009/01/13 @ 10:41 AM By: pss



GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

REFERENCE NOTES:

1. FIXTURES MARKED WITH "E" INDICATES FIXTURES OR FIXTURE SECTION ON EMERGENCY CIRCUIT.
2. FOR CONTINUATION OF LIGHTING CIRCUIT, REFER TO SHEET E-1.
3. INSTALL T-11 TRACK LIGHT ON A P-1000 UNI-STRUT SUPPORT SYSTEM, MOUNTED ON 3/8" RODS ON 6' CENTERS. LOCATE TRACK WITHIN ROOF STRUCTURE FOR MAXIMUM PROTECTION.
4. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL A CONTINUOUS UNI-STRUT #P-1000 C KO SUPPORT SYSTEM, COMPLETE WITH CLOSURE STRIPS & END CAPS. SUPPORT WITH 3/8" CONTINUOUS THREADED RODS APPROX. 7'-0" O.C. SECURED TO THE ROOF STRUCTURE WITH AN APPROVED MOUNTING METHOD.
5. BOTTOM OF FIXTURES TO MOUNT EVEN WITH BOTTOM OF ROOF TRUSS.
5. SWITCHES & COVERS THAT CONTROL EMERGENCY LIGHTING TO BE RED HIGH ABUSE WITH "EMERGENCY" ENGRAVED ON TOP OF COVER PLATE.
6. ELECTRICAL CONTRACTOR TO COORDINATE ALL ELECTRICAL EQUIPMENT WITH MECHANICAL CONTRACTOR SO AS NOT TO INTERFERE WITH PIPING AND DUCT WORK.

1 DEMOLITION PLAN FOR EXISTING SECOND FLOOR LIGHTING PLAN

APPROXIMATELY 1/8" = 1'-0"

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

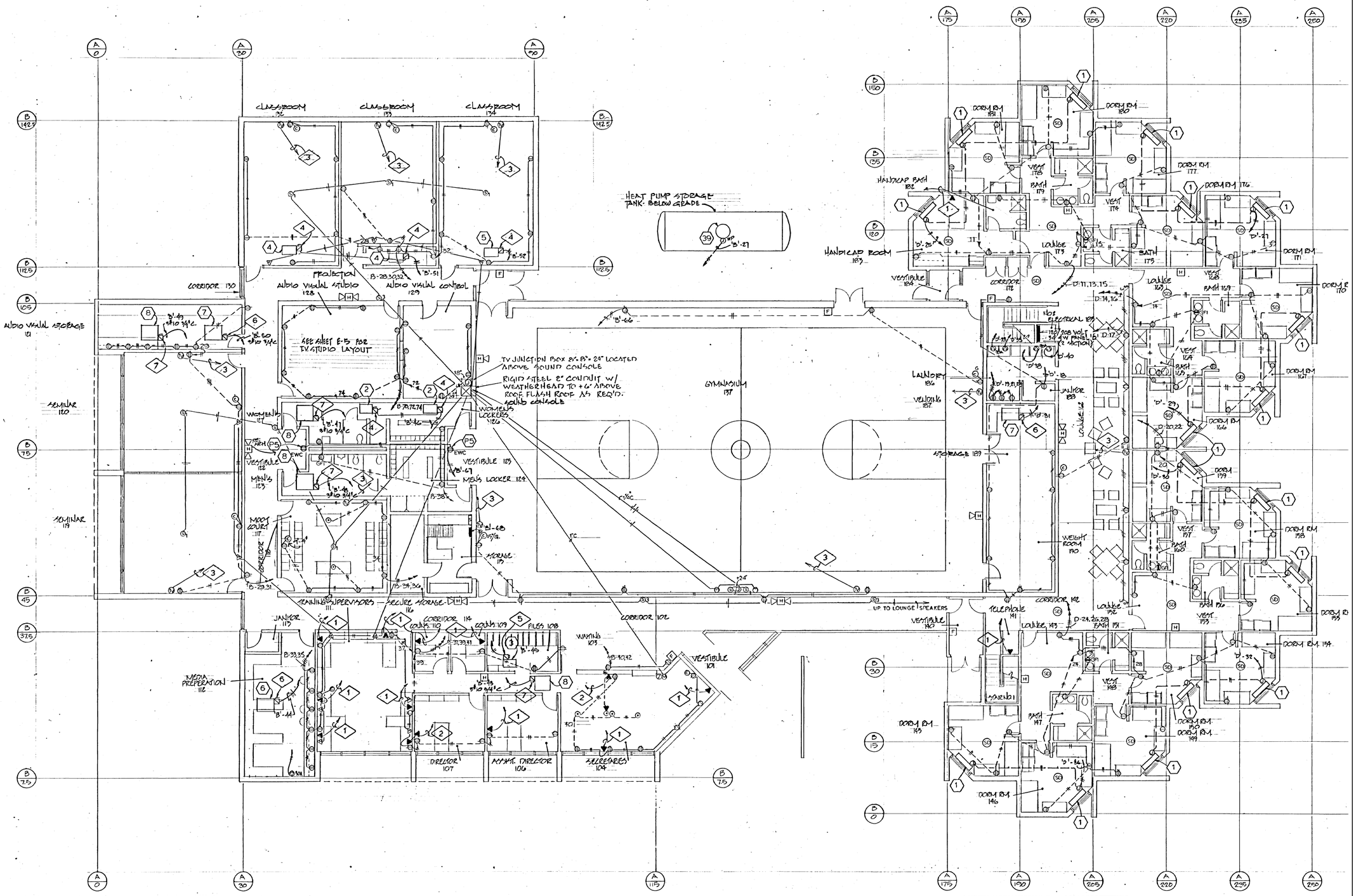
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

REGISTERED PROFESSIONAL ENGINEER No. 6563462-2202 TROY R. LENARD JR. STATE OF UTAH
2008-01-13

DEMOLITION PLAN FOR EXISTING SECOND FLOOR LIGHTING PLAN

ED 102

File Name: P:\2007\20070662\10rawings\Sheet\62ED-102.dwg Last Plotted: 2009/01/13 @ 10:41 AM By: pss



REFERENCE NOTES:

1. ELECTRICAL CONTRACTOR TO EXTEND 1" CONDUIT WITH FULL WIRE TO STORAGE #115 TO TELEPHONE TERMINAL BOARD.
2. ELECTRICAL CONTRACTOR TO EXTEND 1½" CONDUIT WITH FULL WIRE TO STORAGE #115 TO TELEPHONE TERMINAL BOARD.
3. ELECTRICAL CONTRACTOR TO EXTEND 1" CONDUIT WITH FULL WIRE TO JUNCTION BOX ABOVE SOUND CONSOLE.
4. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 30 AMP FUSED DISCONNECT SWITCH, FUSED WITH 15 AMP FUSETRON FUSES.
5. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 30 AMP FUSED DISCONNECT SWITCH, FUSED WITH 20 AMP FUSETRON FUSES.
6. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 30 AMP FUSED DISCONNECT SWITCH, FUSED WITH 25 AMP FUSETRON FUSES.
7. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 60 AMP FUSED DISCONNECT SWITCH, FUSED WITH 35 AMP FUSETRON FUSES.

SOUND SYMBOLS

SYMBOL	DESCRIPTION
(M)	MIKE OUTLET
(S)	SPKR # DENOTES TYPE
(Z)	ZONE SELECTOR PNL
(I)	INTERCOM MASTER.
(TV)	TELEVISION OUTLET

1 DEMOLITION PLAN FOR EXISTING FIRST FLOOR POWER PLAN

APPROXIMATELY 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

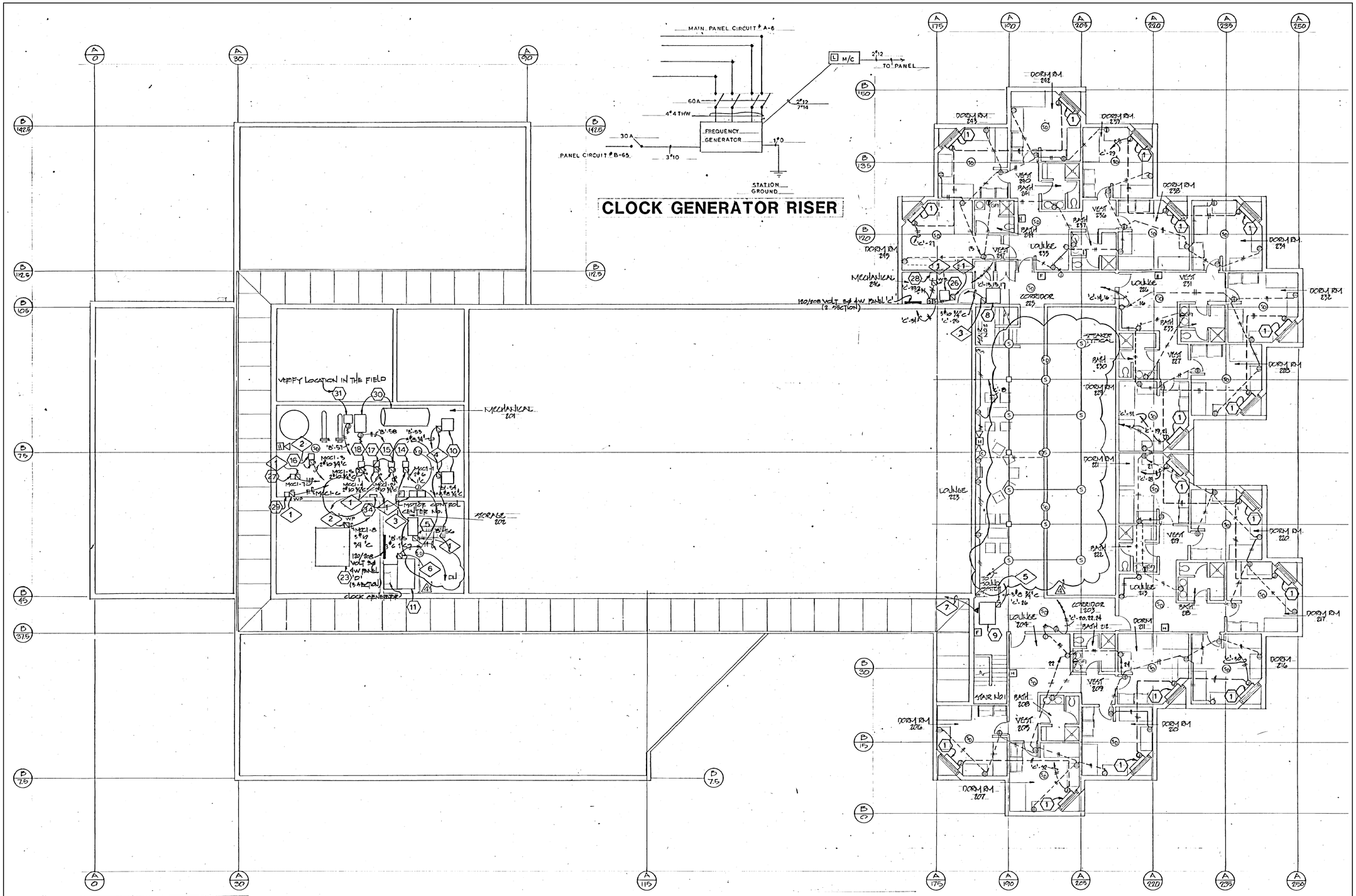
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROY R. LEONARD JR. STATE OF UTAH
2008-01-13

DEMLITION PLAN FOR EXISTING FIRST FLOOR POWER PLAN

ED 103

File Name: P:\2007\20070662\1Drawings\Sheet\62ED-103.dwg Last Plotted: 2009/01/13 @ 10:40 AM By: pss



REFERENCE NOTES

1. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 30 AMP FUSED DISCONNECT SWITCH, FUSED WITH 15 AMP FUSETRON FUSES.
2. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 30 AMP FUSED DISCONNECT SWITCH, FUSED WITH 25 AMP FUSETRON FUSES.
3. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 60 AMP FUSED DISCONNECT SWITCH, FUSED WITH 35 AMP FUSETRON FUSES.
4. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 60 AMP FUSED DISCONNECT SWITCH, FUSED WITH 45 AMP FUSETRON FUSES.
5. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 60 AMP FUSED DISCONNECT SWITCH, FUSED WITH 60 AMP FUSETRON FUSES.
6. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL, WEATHERPROOF HEAVY DUTY 100 AMP FUSED DISCONNECT SWITCH, FUSED WITH 90 AMP FUSETRON FUSES.
7. ELECTRICAL CONTRACTOR, TO EXTEND 1" CONDUIT WITH PULL WIRE, TO STORAGE #115 TO TELEPHONE TERMINAL BOARD.

1 DEMOLITION PLAN FOR EXISTING SECOND FLOOR POWER PLAN

APPROXIMATELY 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

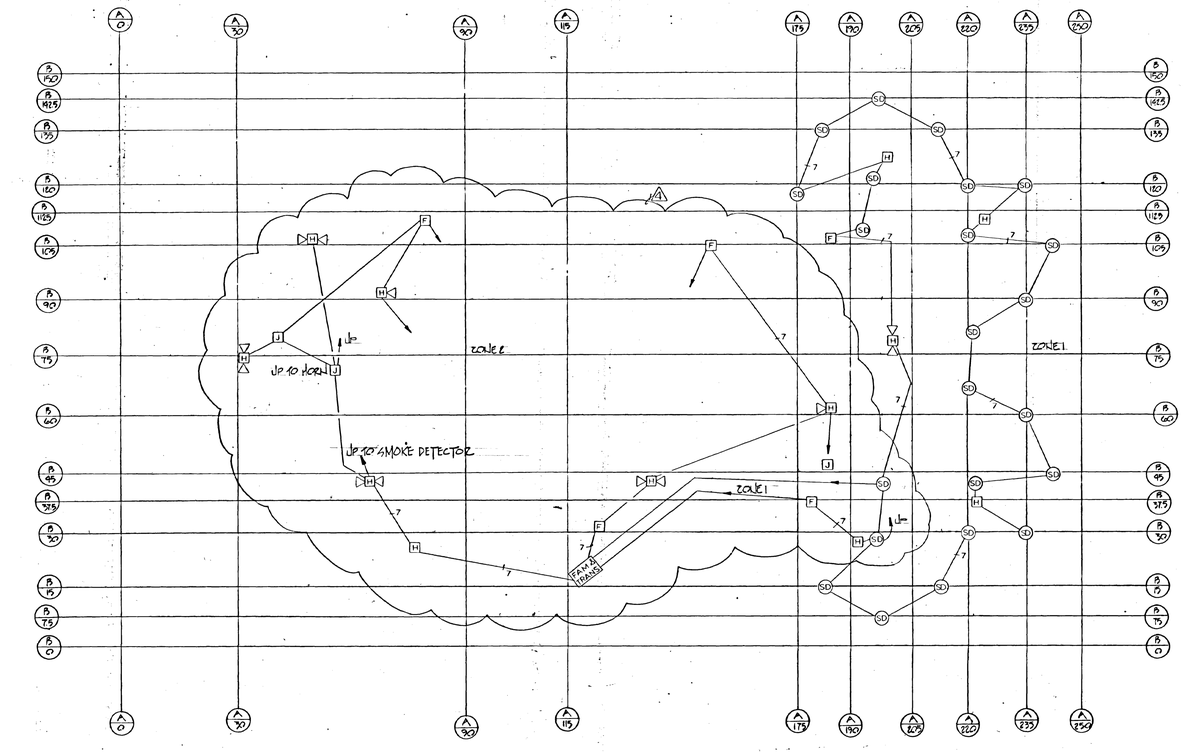
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROY A. LENARD JR. STATE OF UTAH
2008-01-13

DEMOLITION PLAN FOR EXISTING SECOND FLOOR POWER PLAN

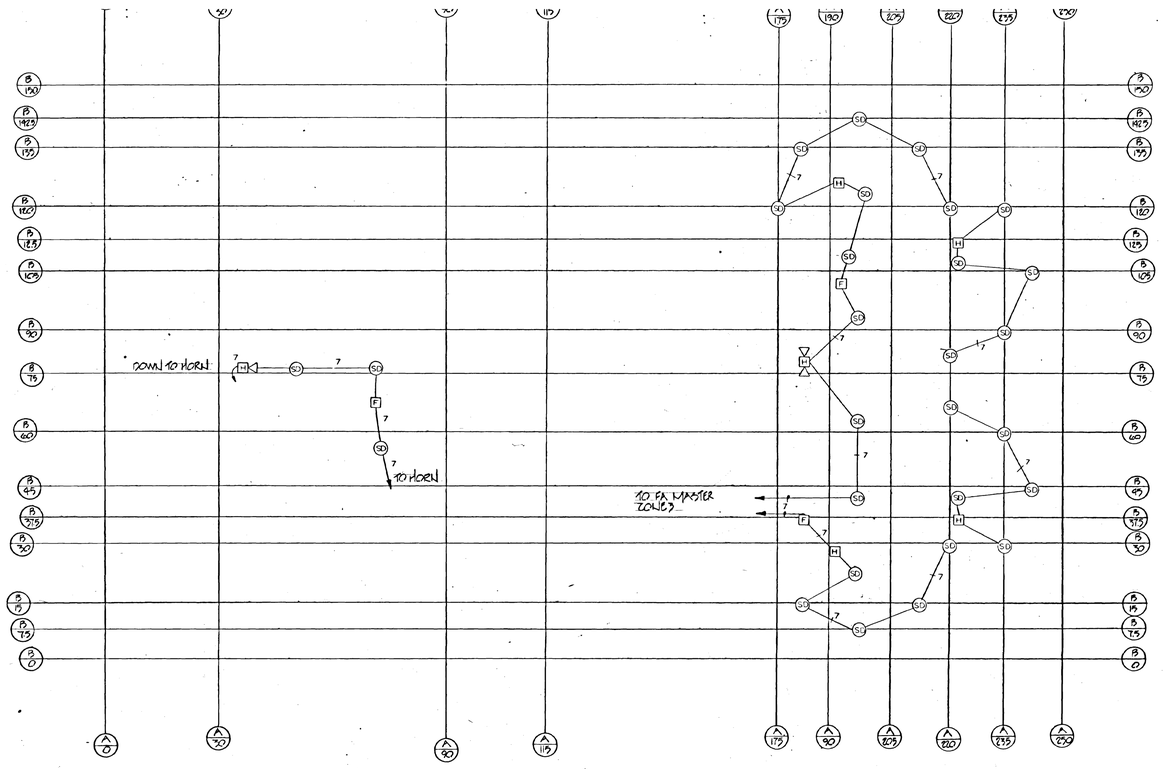
ED 104

File Name: P:\2007\20070662\1Drawings\Sheet\62ED-104.dwg Last Plotted: 2009/01/13 @ 10:39 AM By: pss



2 DEMOLITION PLAN FOR EXISTING FIRE ALARM RISER DIAGRAM FIRST FLOOR

NTS

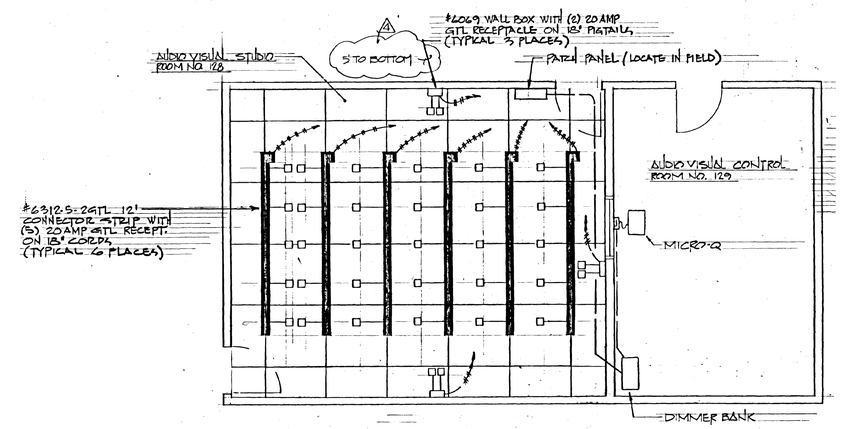


1 DEMOLITION PLAN FOR EXISTING FIRE ALARM RISER DIAGRAM SECOND FLOOR

NTS

NOTES!

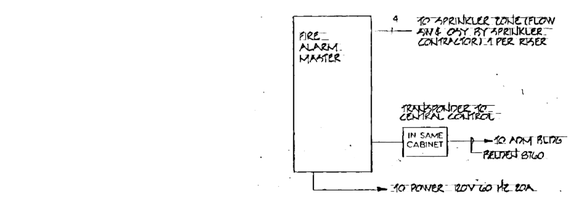
1- ALL CIRCUITS ARE 2 WIRE 20AMP. (NO COMMON NEUTRALS)
2- ALL CIRCUITS TERMINATE IN PATCH PANEL.



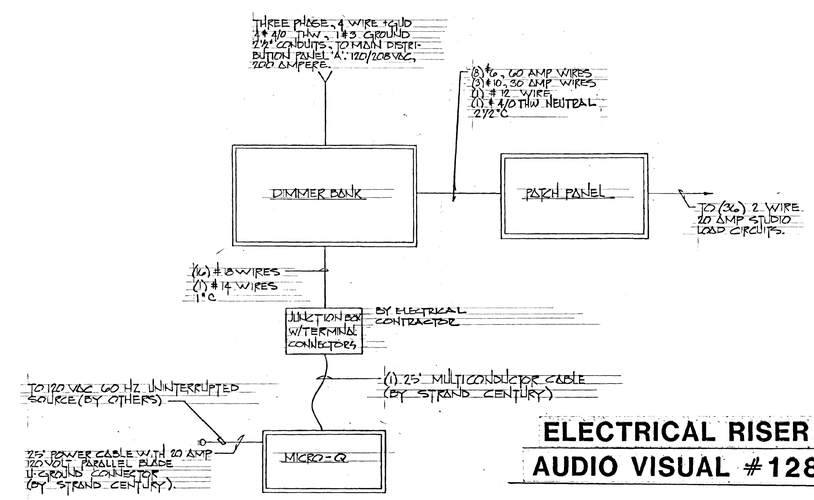
AUDIO VISUAL ELECTRICAL LAYOUT

SYMBOL LIST

FAN & TRANS	FIRE ALARM MASTER AND TRANSPONDER FOR CENTRAL TIE IN
SD	SMOKE DETECTOR WITH 135° HEAT BACK UP
F	PULL STATION
H	HORN- DOUBLE SINGLE OR NON PROJECTED



FIRE ALARM SCHEMATIC



ELECTRICAL RISER AUDIO VISUAL #128

GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6663462-2202 TRONSON A. MENARY JR. STATE OF UTAH
2008-01-13

REFERENCE
FIRE ALARM RISER
AUDIO VISUAL
ELECTRICAL
LAYOUT

ED 105

File Name: P:\2007\20070662\1Drawings\Sheet\62ED-105.dwg Last Plotted: 2009/01/13 @ 10:38 AM By: pss

LIGHTING FIXTURE SCHEDULE

SYMB	MANUF	CATALOG #	LAMPS	DISCRIPTION
T-1	ELGY HUBBEL WESTINGHOUSE	IBG-250-HPS-DR SQM-0250-H-1W1-A1 AFSS 1522	250 WATT H.P.S	250 WATT HPS PENDANT MOUNTED SELF CONTAINED FIXTURE. 208 VOLT ENCAPSULATED CWA HPF BALLAST. 1/8" THICK ACRA TUFF PATTERN 12 LENS, WITH FACTORY (RTV) SEALED LENS. 250 WATT WESTINGHOUSE COLOR IMPROVED CERAMALUX 4 HIGH PRESSURE SODIUM.
T-2	ELGY DAY-BRITE WESTINGHOUSE	PBAG-440-2x4-120 LGL424-32A24 AFBBAG4424-432-10	(4) F40 RS WW ECONO WATT LAMPS	2X4 LAY-IN TROFFER 4 LAMP, 120 VOLT ENERGY SAVER BALLAST. BLACK AIR SLOT, PARABOLIC ALUMINUM LOUVERS, HINGED AND LATCHED FACTORY WIRED FOR INBOARD AND OUTBOARD SWITCHING. 120 VOLT. AIR RETURN ONLY.
T-3	ELGY DAY-BRITE WESTINGHOUSE	PBAG-3U40-2x2-120 LGL3220-9A22 AFBBAG-3U22-316-10	(3) F40 RS WW U LAMPS	SAME AS T-2 EXCEPT 2X2 LAY-IN TROFFER (3) U LAMPS
T-4	LITHONIA DAY-BRITE WESTINGHOUSE	LB-240A 14WA2RA VR-240 AC	(2) F40 RS WW ECONO WATT LAMPS	1X4 2 LAMP SURFACE MOUNTED WRAPAROUND FIXTURE, 120 VOLT ENERGY SAVER BALLASTS W/ACRYLIC LENS.
T-5	LITHONIA DAY-BRITE WESTINGHOUSE	M-240-MAIZ 4N2R PH240RSC-LD	(2) F40 RS WW ECONO WATT LAMPS	4' 2 LAMP SURFACE MOUNTED INDUSTRIAL FIXTURE, 120 VOLT ENERGY SAVER BALLASTS STANDARD WHITE FINISH. LOW DENSITY MOUNTING.
T-6	LITHONIA DAY-BRITE WESTINGHOUSE	DV-240A R41241 PEG-240R	(2) F40 RS WW ECONO WATT LAMPS	4' 2 LAMP SURFACE MOUNTED INDUSTRIAL VAPOR TIGHT FIXTURES, 120 VOLT ENERGY SAVER BALLASTS STANDARD WHITE FINISH, W/ACRYLIC LENS.
T-7	FORUM NORTHERN PEERLESS	SAU-2020X28/28 ZSLIN-24R-DR 36-LST12-MW-SPL	(14) F40 RS WW ECONO WATT LAMPS	PENDANT MOUNTED OFF THE TRUSS 9' TO BOTTOM OF FIXTURE. 8" WIDE X 4 3/4" HIGH EXTRUDED ALUMINUM LIGHT BEAM. CONTINUOUS WALL TO WALL. FIELD CUT TO FIT. FACTORY WIRE FOR 2 SEPERATE ROWS OF SWITCHING 120 VOLT ENERGY SAVER BALLAST. MATTE WHITE FINISH.
T-8	PEERLESS	3d-LBR-184-MW	F40 RS WW ECONO WATT LAMPS	WALL MOUNTED 6" WIDE X 6" HIGH EXTRUDED ALUMINUM LIGHT BAR LENGTH AS SHOWN. 120 VOLT ENERGY SAVER BALLAST. MATTE WHITE FINISH. UP/DOWN LIGHT WITH 1"x1" BAFFELS ON DOWN LIGHT.
T-9	NORTHERN PEERLESS	WCPLA24R 3a-LBR190MW-SPL	F40 RS WW ECONO WATT LAMPS	RECESSED 6" WIDE X 6" DEEP EXTRUDED ALUMINUM WALL SLOT WITH WHITE 1" X 1" BAFFELS. LENGTH AS SHOWN. 120 VOLT ENERGY SAVER BALLASTS MATTE WHITE FINISH. FACTORY WIRED FOR 2 CIRCUIT WIRING STAGGERED LAMPS.
T-10	NORTHERN PEERLESS	XCPLA272R-ACA-SWS IM-9445-SPL	(2) F20 (2) F40 RS WW LAMPS	WALL MOUNTED 6' LONG FIXTURE UP/DOWNLIGHT W/SELFCONTAINED SWITCHES: ONE TO CONTROL (1) 4' LAMP UP LIGHT AND ONE TO CONTROL (1) 4' LAMP DOWNLIGHT AND ONE TO CONTROL (1) 2' UPLIGHT, (1) 2' DOWNLIGHT LAMPS 120 VOLT BALLASTS. MATTE WHITE FINISH W/ACRYLIC LENS. MOUNT FIXTURE AT 5'-6" AFF.
T-11	ELGY OMEGA PRESCOLITE	L6304/L6483 T23EERS/6-TUA-C93CMBA 92000 SERIES/93419	(6) 150 WATT 150 R40 LAMPS	SURFACE MOUNTED 2 CIRCUIT LIGHT TRACK LENGTH PER DRAWINGS COMPLETE WITH ALL COUPLINGS, CONNECTORS, ETC AS REQUIRED FOR A COMPLETE INSTALLATION. INSTALL (6) WHITE 150 WATT ADJUST CYLINDERS, 3 PER CIRCUIT.
T-12	ACME DUNBAR PRESCOLITE	404-22-W 9447	(1) 20 WATT WW LAMPS	SURFACE MOUNTED FLUORESCENT CIRCLE LINE FIXTURE WITH 120 VOLT BALLAST. OPAL ACAPAL DIFFUSER. WET LOCATIONS LABAL.
T-13	CALITE OMEGA PRESCOLITE	HD-100HARM-AC120 E405ITW 1225-HS-100MV-462	(1) 100 WATT DLX. MERCURY VAPOR.	RECESSED 100 WATT MERCURY VAPOR DOWN LIGHT 120 VOLT SILENT PACK BALLAST PREWIRED JUNCTION BOX SPECULAR SILVER ALZAK CONE, GASKETED FLANGE TRIM TO PREVENT LIGHT LEAKS. BALLAST TO BE ACCESSABLE THROUGH FUTURE OPENING.
T-14	PRESCOLITE	1015RM-3	(1) 75 WATT A-23 LAMP	RECESSED 75 WATT INCANDESCENT DOWN LIGHT WITH PREWIRED JUNCTION BOX. REGRESSED 522 TRIM DROP OPAL LENS.
T-15	PRESCOLITE	1015RM-3	(1) 100 WATT A-23 LAMP	SAME AS T-14 EXCEPT 100 WATT.
T-16	OMEGA PRESCOLITE	L7051TWD 1015H4M-70HPS-8-SPL	(1) 70 WATT HPS	SAME AS T-13 EXCEPT W/TEMPERED LENS. 70 WATT HPS LAMP.
T-17	PEERLESS	3d-LBR-184-MW-EG -20°DL	F40 RS WW ECONO WATT LAMPS	SAME AS T-8 EXCEPT TWO LAMP 800 MA. ENCLOSED & GASKETED DOOR WITH -20° 120 VOLT BALLASTS. DAMP LAMB.
T-18	OMEGA PRESCOLITE	PS8S3TW 1225-462	(1) 150 WATT A-21 LAMP	8" RECESSED DOWNLIGHT, PREWIRED JUNCTION BOX. SPECULAR CLEAR ALZAK REFLECTOR FOR A-21 LAMP.
T-19	PRESCOLITE	WB-28/WG-8	(1) 100 WATT A-LAMP I.F.	WALL MOUNTED INCANDESCENT FIXTURE WITH CAST ALUMINUM GUARD. MOUNT FIXTURE AT 7'-0" ABOVE ROOF. WET LOCATION.
T-20	PEERLESS	3d-LBR76-MW	F40 RS WW ECONO WATTS LAMPS	SAME AS T-8 EXCEPT SINGLE LAMP 800 MA. MOUNTED IN STAIRS UP 6'-6" ABOVE LANDING.
T-21				
T-22				
EX	DEVINE DAY-BRITE PRESCOLITE	G50 SERIES BB116 75222	LAMP AS REQ'D	SURFACE MOUNTED EXIT LIGHT, UNIVERSAL MOUNTED (BACK, TOP, END) UNIVERSAL ARROWS, GREEN METAL STENCIL FACE CAST ALUMIUM VERIFY MOUNTING & ARROWS 120 VOLT
EX1	DEVINE DAY-BRITE PRESCOLITE	G50 SERIES EB116 71422	LAMP AS REQ'D	SAME AS EX EXCEPT RECESSED EXIT LIGHT
EX2	DEVINE DAY-BRITE PRESCOLITE	G50 SERIES BB126 75322	LAMP AS REQ'D	SAME AS EX EXCEPT DOUBLE FACED EXIT LIGHT.

PANEL NO. 'A'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE I-LINE MAIN BREAKER 1400A 3P. BOLT LOCK
MAINS ONLY 1600A FEED —, LOCATION STORAGE #115

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
SUBFEED PANEL 'B'	170K	1	400	300	2	67.6K	SUBFEED PANEL 'C'
SUBFEED PANEL 'D'	57KW	3	300	150	4		SUBFEED MOTOR CONTROL CENTER #1
SUBFEED PANEL 'EM'	8KW	5	50	60	6	8KW	CLOCK GENERATOR #201
SPACE ONLY 225A FRAME			225		8	200A	DIMMER PANEL
" "							SPACE ONLY Q2H FRAME
" "							" "
" "							" "

1400A 3POLE BOLT LOCK FUSIBLE SWITCH WITH CURRENT LIMITING FUSES (TYPE KRPC)

TOTAL CONNECTED LOAD 382KW = 1062 AMPS

MAIN DISTRIBUTION

PANEL NO. 'B'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER —
MAINS ONLY 225A FEED —, LOCATION STORAGE #115

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
LTG. CORRIDOR	1400	1	20	20	2	1600	LTG. SECURITY-COURT
" "	1400	3	20	20	4	1600	" RESTROOM
" "	400	5	20	20	6	600	" CLASSROOM
" CLASSROOMS	1200	7	20	20	8	1000	" "
" "	1200	9	20	20	10	1000	" "
" "	1200	11	20	20	12	1000	" "
" "	1200	13	20	20	14	1600	" "
" MEDIA PREPARATION	800	15	20	20	16	1200	" AUDIO VISUAL
" TRAINING SUPERVISOR	1200	17	20	20	18	1000	" "
" "	1200	19	20	20	20	500	" "
" COUNSLER	1600	21	20	20	22	1200	" RECEPTION
" DIRECTOR	1600	23	20	20	24	1200	" "
SPARE		25	20	20	26	1000	" "
WATER LEVELER	1600	27	20	20	28	300	CONV. OTL. CLASSROOM
CONV. OTL. AUDIO VISUAL	1200	29	20	20	30	500	" "
" "	1200	31	20	20	32	1500	" "
" "	600	33	20	20	34	1800	" " MOOT COURT
" "	600	35	20	20	36	1100	" " "
" "	800	37	20	20	38	800	" LOCKERS
" "	1200	39	20	20	40	1200	" CLERKS
" "	800	41	20	20	42	1200	" "

TOTAL CONNECTED LOAD 47 KW 131 AMPS

SECTION #1 (22,000 AIC)

PANEL NO. 'B'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER —
MAINS ONLY 400A FEED —, LOCATION STORAGE #115

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
HEAT PUMP (8) #105	7100	43	50	40	44	5000	HEAT PUMP (6) #112
" " (3) #108	7100	45	20	20	46	2400	" " (2) #126
" " (8) #127	7100	47	50	50	48	7100	" " (8) #123
" " (8) #121	7100	49	50	40	50	6000	" " (7) #121
" " (4) #132-3	3000	51	20	20	52	3100	" " (5) #124
" " (10) #202	9300	53	70	70	54	9300	" " (10) #202
" " (11) #201	1700	55	100	70	56	3700	" " (5) #201
HOT WATER BOIL. (30) #202	1000	57	20	20	58	1000	IN-LINE PUMP (31) #202

TOTAL CONNECTED LOAD 92 KW 255 AMPS

SECTION #2 (22,000 AIC)

PANEL NO. 'B'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE I-LINE MAIN BREAKER —
MAINS ONLY 600A. FEED —, LOCATION STORAGE #115

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
				20	60	1200	LTG MULTI-PURPOSE
LTG. MULTI-PURPOSE	3800	59	20	20	62	1200	" " "
				20	64	1200	" STORAGE MEZZ.
" " "	3800	61	20	20	66	1000	CONV. OTL. MULTI-PURPOSE
				20	68	1000	" " " "
" " "	3800	63	20	20	70	1000	" " AUDIO VISUAL
				20	72	1000	" " " "
CLOCK GENERATOR #201	4000	65	30	20	74	1000	" " " "
EVAC #122 #125	1000	67	20	30	76	3000	XEROX MACHINE
SPARE		69	20	20	78		SPARE
"		71	20	20	80		"
"		73	20	20	82		"
"		75	20	20	84		"
"		77	20	20	86		"
SPACE ONLY		79			88		SPACE ONLY
" "		81			90		" "
" "		83			92		" "
SUBFEED SECTION #1 OF PANEL 'B'	41K	85	225	300	94	92K	SUBFEED SECTION #2 OF PANEL 'B'

TOTAL CONNECTED LOAD 170 KW 472 AMPS

SECTION #3 (22,000 AIC)

PANEL NO. 'C'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER —
MAINS ONLY 225A FEED —, LOCATION MECHANICAL #246

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
LTG. LINEN, MEZZ.	1200	1	20	20	2	1200	LTG MEZZANINE
" DORM AREA	1000	3	20	20	4	1200	" "
" " "	1000	5	20	20	6	1400	" DORM AREA
" " "	1000	7	20	20	8	1200	" " "
" " "	1400	9	20	20	10	400	" " "
" " "	1200	11	20	20	12	1200	" " "
CONV OTL " "	1600	13	20	20	14	1000	CONV. OTL " "
" " "	400	15	20	20	16	1400	" " "
" " "	1600	17	20	20	18	1100	" " LOUNGE
" " "	1200	19	20	20	20	1400	" " DORM AREA
" " "	1600	21	20	20	22	1200	" " "
SPARE		23	20	20	24	1400	" " "
HEAT PUMPS (8) #225	7100	25	40	70	26	12KW	HEAT PUMPS (9) #203
" " (1) #245	2900	27	20	20	28	2900	" " (1) #221
" " (1) #239	2900	29	20	20	30	2900	" " (1) #216
" " (1) #229	2900	31	20	20	32	2900	" " (1) #207

TOTAL CONNECTED LOAD 65.6 KW 182 AMPS

SECTION #1 (22,000 AIC)

PANEL NO. 'C'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER —
MAINS ONLY 400A FEED —, LOCATION MECHANICAL #246

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
CENTRIFUGAL #246	1200	33	20	20	34	800	CENTRIFUGAL #246
SPARE		35	20	20	36		SPARE
"		37	20	20	38		"
"		39	20	20	40		"
"		41	20	20	42		"
"		43	20	20	44		"
"		45	20	20	46		"
"		47	20	20	48		"
"		49	20	20	50		"
"		51	20	20	52		"
SPACE ONLY Q2H FRAME		53		225	54	63.6K	SUBFEED SECTION #1 OF PANEL 'C'

TOTAL CONNECTED LOAD 67.6 KW 187 AMPS

SECTION #2 (22,000 AIC)

PANEL NO. 'D'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER —
MAINS ONLY 400A. FEED —, LOCATION ELECTRICAL #185

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
LTG. DORM AREA	900	1	20	20	2	1200	LTG DORM AREA
" " "	1100	3	20	20	4	1200	" " "
" " "	1400	5	20	20	6	1200	" " "
" " "	1500	7	20	20	8	1200	" " "
" " "	1200	9	20	20	10	1500	" CORR., STAIRS, LOUNGE
CONV. OTL " "	1600	11	20	20	12	1500	" STOR. WEIGHT
" " " "	1400	13	20	20	14	1000	CONV. OTL. DORM AREA
" " " "	1600	15	20	20	16	1400	" " " "
" " CORRIDOR	1300	17	20	20	18	1600	" " STOR. WEIGHT
" " VENDING	1000	19	20	20	20	1200	" " DORM AREA
" " "	1000	21	20	20	22	1600	" " " "
" " "	1000	23	20	20	24	1400	" " " "
					26	1000	" " " "
HEAT PUMPS (1) #146	2900	25	20	20	28	1400	" " " "
" " (1) #154	2900	27	20	20	30	2900	HEAT PUMPS (1) #166
" " (1) #159	2900	29	20	20	32	2900	" " (1) #171
" " (7) #189	6000	31	40	125	34	15KW	SUBFEED SECTION #2 PANEL 'D'

TOTAL CONNECTED LOAD 69 KW 192 AMPS

SECTION #1 (22,000 AIC)

PANEL NO. 'D'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER —
MAINS ONLY 225A FEED —, LOCATION ELECTRICAL #185

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
WASHER-LAUNDRY	3000	33	30	20	36	2900	HEAT PUMP (1) #183
" "	3000	35	30	30	38	3000	DRYER-LAUNDRY
SPARE		37	20				
"		39	20	30	40	3000	" "
"		41	20	20	42		SPARE
"		43	20	20	44		"
"		45	20	20	46		"
"		47	20	20	48		"
"		49	20	20	50		"
"		51	20	20	52		"
SPACE ONLY		53			54		SPACE ONLY
" "		55			56		" "
" "		57			58		" "

TOTAL CONNECTED LOAD 15 KW 42 AMPS

SECTION #2 (22,000 AIC)

PANEL NO. 'EM'

VOLTAGE 120 / 208 4 WIRE X
SURFACE X FLUSH — MOUNTED, TYPE NQOB MAIN BREAKER 50 AMP 3 POLE
MAINS ONLY 100A. FEED —, LOCATION STORAGE #115

AREA SERVED	LOAD	CCT.	BKR.	BKR.	CCT.	LOAD	AREA SERVED
LTG. STORAGE, MECH.	300	1	20	20	2	1100	LTG. GYM, CORR., LOUNGE
" MECHANICAL	1000	3	20	20	4	50	EXIT LTG. STAIRS
" CORR., LOUNGE	1100	5	20	20	6	1000	LTG. CORR., LOUNGE
EXIT LTG. CORR., LOUNGE	350	7	20	20	8	300	EXIT LTG. GYM, CORR.
PA SOUND SYSTEM	1000	9	20	20	10	1000	TELEPHONE TERMINAL
SPARE		11	20	20	12		SPARE
"		13	20	20	14		"
"		15	20	20	16		"
"		17	20	20	18		"
SPACE ONLY		19			20		SPACE ONLY
" "		21			22		" "
" "		23			24		" "

TOTAL CONNECTED LOAD 8 KW 22 AMPS

EMERGENCY PANEL (22,000 AIC)

PANEL NOTES

1. MAIN BUSS BARS AND CONNECTING STRAPS SHALL BE COPPER THROUGHOUT FOR BRANCH PANELS, SWITCHBOARDS AND MOTOR CONTROL CENTERS.
2. MINIMUM BREAKER INTERRUPTING RATINGS TO BE 22,000 AMPS SYMMETICAL.
3. ALL 120/208 VOLT 3 PHASE 4 WIRE BRANCH PANELS TO BE EQUAL TO 'SQUARE 'D'' TYPE NQOB WITH BOLT ON TYPE QOBVH FRAME BREAKERS, 20 AMP THRU 100 AMP. Q2H FRAME BREAKERS, 125 AMP THRU 225 AMP.
4. PROVIDE MOUNTING HARDWARE IN ALL SPACE ONLY DESIGNATIONS
5. ALL BRANCH TO HAVE CANS 20" WIDE X 5 3/4" DEEP.
6. WHERE EVER POSSIBLE THE ELECTRICAL CONTRACTOR SHALL ROUTE CONDUITS FROM PANELS THRU FLOOR INTO AVAILABE CLEAR ACCESSABLE SPACE TO MINIMIZE CONDUIT BENDS IN FLOOR SLAB AT PANEL LOCATIONS, THIS WILL HELP MINIMIZE FLOOR SLAB CRACKING THESE LOCATIONS.

EXISTING FOR DEMOLITION – DEMOLISH IN THEIR ENTIRETY

GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION PROJECT #.
12 · 18 · 08 08008
01 · 07 · 09 △1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH 2008-01-13

REFERENCE LIGHTING FIXTURE & PANEL SCHEDULES

ED 106

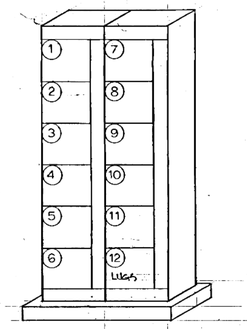
File Name: P:\2007\20070662\1Drawings\Sheet\62ED-106.dwg Last Plotted: 2009/01/13 @ 10:38 AM By: pss

MOTOR CONTROL CENTER NO 1

LOCATED IN MECHANICAL ROOM #201
SEE SHEET E-4.

SECTION	EQUIPMENT	MOTOR RATING	BREAKER AMPS	NUMBER POLES	STARTER SIZE	CONTROL H.O.A.	CONTROL P.B.	PILOT LIGHT GREEN	PILOT LIGHT RED	INTERLOCKS N/O	INTERLOCKS N/C	REMARKS
1	CIRCULATING PUMP #14	7 1/2	30 MCP	3	2	1		1	1	2		HEAT PUMP
2	" " #15	3	15 MCP	3	1	1		1	1	2		HEAT EXCHANGER
3	" " #16	5	30 MCP	3	1	1		1	1	2		COOLING TOWER
4	" " #17	1 1/2	15 MCP	3	1	1		1	1	2		BOILER CIRC.
5	" " #18	3	15 MCP	3	1	1		1	1	2		COND. WATER
6	EXHAUST FAN #25	3/4	7 MCP	3	1	1		1	1	2		
7	CENTRIFUGAL #27	1/2	3 MCP	3	1	1		1	1	2		
8	COOLING TOWER #23	5	30 MCP	3	1	1		1	1	2		
9	SPARE			3	1	1		1	1	2		
10	SPARE			3	2	1		1	1	2		
11	SPACE ONLY				1							
12	LUGS											

MOTOR CONTROL CENTER TO BE SQUARE 'D' TYPE 8998 TYPE 4 - CLASS I, TYPE B WIRING. 208VOLT, 3Φ, 3 WIRE. COPPER BUSS WITH GROUND BUSS. 22,000 RMS SYMMETRICAL AMPERES, BRACING. EACH STARTER TO BE COMBINATION MOTOR CIRCUIT PROTECTOR. PROVIDE 3 OVERLOADS WITH EACH STARTER AND A SEPERATE 120VOLT FUSED CONTROL TRANS. MOUNT CONTROL CENTER ON A 4" HIGH CONCRETE BASE. PROVIDE THE GEN. CONTRACTOR EXACT DIM. PRIOR TO POUR. ALL BREAKERS TO BE RATED 22,000 AIC SYM.



MCC 1 ELEVATION

ELECTRICAL SYMBOLS

	FLOURESCENT FIXTURE
	INCANDESCENT FIXTURE
	INDICATES LIGHTING FIXTURE ON NIGHT LIGHT OR EMERGENCY
	INDICATES WALL MOUNTED BRACKET FIXTURE
	INDICATES RECESSED LIGHT FIXTURE
	EXIT LIGHT
	FLOOD LIGHT
	EMERGENCY BATTERY OPERATED LIGHT – SINGLE OR TWIN BEAM
	INDICATES POST MOUNTED PARKING OR WALKWAY LIGHTING
	INDICATES FIXTURE CALLOUT – TYPE AND SUGGESTED QUANTITY
$	SINGLE POLE TOGGLE SWITCH – 20 AMP TYPICAL
$ab	SINGLE POLE TOGGLE SWITCH – LETTERS INDICATE SWITCHING
$3	THREE-WAY TOGGLE SWITCH
$p	SINGLE POLE TOGGLE SWITCH WITH PILOT LIGHT
	JUNCTION BOX – SIZE AS REQUIRED
	DUPLEX GOUNDED CONVENIENCE OUTLET – 20 AMP TYPICAL
	INDICATES TWIST-LOCK TYPE RECEPTACLE
	INDICATES FLUSH MOUNTED FLOOR OUTLET
	INDICATES TELEPHONE OUTLET LOCATION
	INDICATES CLOCK OUTLET LOCATION 12" BELOW CEILING OR NOTED
	SPECIAL PURPOSE 1-PHASE OUTLET – SIZE AS NOTED
	SPECIAL PURPOSE 3-PHASE OUTLET – SIZE AS NOTED
GFI	GROUND FAULT INTERRUPTER OUTLET
	NON FUSED SITE DISCONNECT SWITCH – SIZE AS NOTED
	FUSED SITE DISCONNECT SWITCH – SIZE AS NOTED
	MOTOR STARTER LOCATION – SIZE AS REQUIRED
	MOTOR LOCATION
	FIRE ALARM BREAK GLASS STATION
	FIRE ALARM DETECTOR
	FIRE ALARM CHIME
	FIRE ALARM HORN – SIZE AS NOTED
EWC	ELECTRIC WATER COOLER
WP	INDICATES WEATHER PROOF EQUIPMENT
	ELECTRICAL PANEL LOCATION
	ELECTRICAL DISTRIBUTION PANEL
	INDICATES CONDUITS CONCEALED IN CEILING AND WALLS
	INDICATES CONDUITS CONCEALED IN FLOOR OR BELOW GRADE
	ARROWS INDICATE HOME RUN. CROSS LINES INDICATE NUMBER WIRES
	~~FOR HVAC SYSTEM SYMBOLS SEE SHEET E-1~~

SEE SHEET E-5 FOR ADDITIONAL SYMBOLS

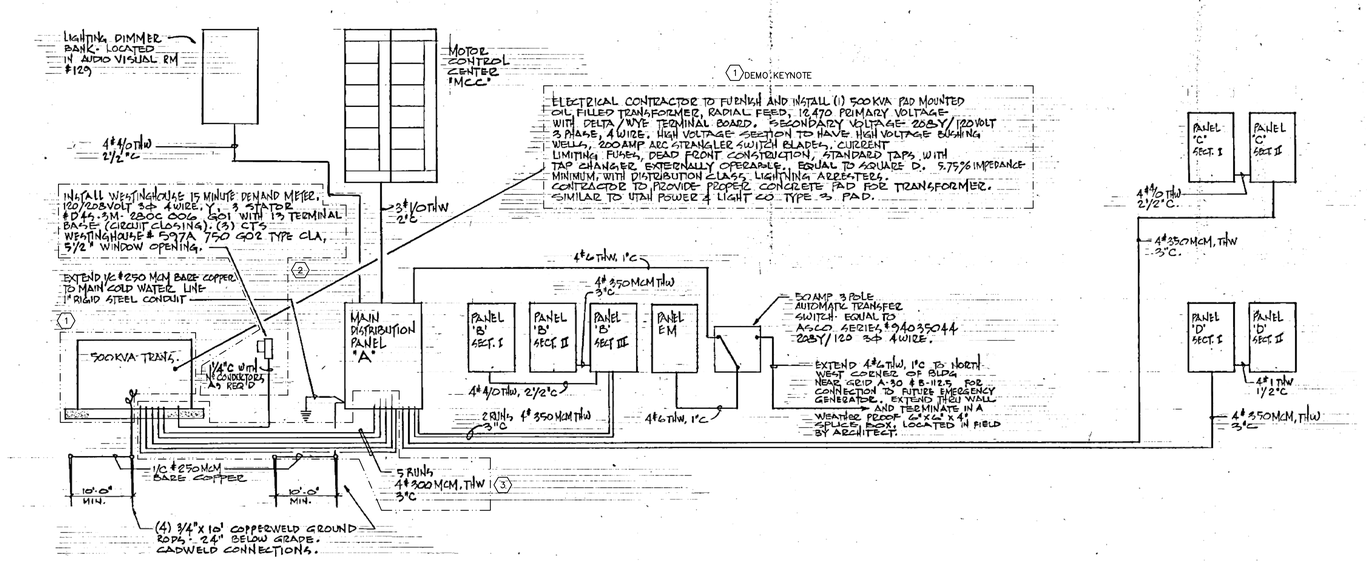
TYPICAL SYMBOL LIST. ALL SYMBOLS NOT FOUND ON THIS PROJECT.

MECHANICAL EQUIPMENT SCHEDULE

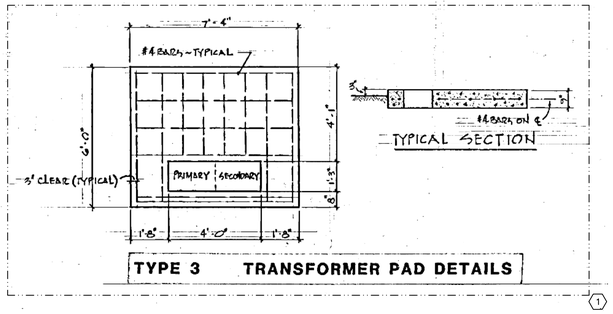
SEE MECHANICAL PLANS AND SPECIFICATIONS

	NAME OF EQUIPMENT	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP	HEAT PUMP		CIRCULATING PUMP	CIRCULATING PUMP	CIRCULATING PUMP	CIRCULATING PUMP	CIRCULATING PUMP			COOLING TOWER	CENTRIFUGAL FAN	CENTRIFUGAL FAN	EXHAUST FAN	EXHAUST FAN	IN LINE PUMP	PUMP TANK HEAT-TRACE	TIME CLOCK	COOLING TOWER FREEZE-STAT	WATER LEVEL CONTROLLER		ELECTRIC WATER COOLER
	EQUIPMENT NO.	1	2	3	4	5	6	7	8	9	10	11		14	15	16	17	18			23	26	27	28	29	31	33	34	37	39		P-5
MOTOR DATA	HORSEPOWER / RATING	9½ KW	1.5 KW	1.5 KW	1.5 KW	1.5 KW	5.0 KW	5.0 KW	2.0 HP	1.5 KW	1.5 KW	4.5 KW		7 1/2	3	5	1 1/2	3			5	3/4	1/2	1/4	3/4	1/6 HP						1/6
	VOLTAGE	208	208	208	208	208	208	208	208	208	208	208		208	208	208	208	208			208	208	208	208	208	120	120	120	120	120		120
	PHASE	1	1	1	1	1	3	3	3	3	3	3		3	3	3	3	3			3	3	3	3	3							
	AMPS	45	60	80	86	103	14	16.5	17.7	33.1	25.6	45.6		88.4	10.6	16.8	5.75	10.6			16.8	3.1	2.2	1.1	3.1	4.2						4.2

THE ELECTRICAL CONTRACTOR TO REFER TO THE MECHANICAL PLANS AND SPECIFICATIONS FOR ADDITIONAL ELECTRICAL REQUIREMENTS AND CONTROL WIRING. FURNISH AND INSTALL ALL MATERIAL AS NOTED.



1 DEMOLITION PLAN FOR EXISTING PANEL RISER DIAGRAM
NTS



TYPE 3 TRANSFORMER PAD DETAILS 1

GENERAL DEMOLITION NOTES

1. THE INTENT OF THESE ELECTRICAL DEMOLITION DRAWINGS IS TO ILLUSTRATE THE GENERAL CONDITION OF THE EXISTING ELECTRICAL SYSTEM FROM THE RECORD DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL DEMOLISH THE ENTIRE ELECTRICAL SYSTEM IN IT ENTIRETY TO MAKE WAY FOR THE NEW ELECTRICAL SYSTEM. THESE DRAWINGS ARE PROVIDES AS A GENERAL REFERENCE AS TO LOCATION AND QUANTITY OF ELECTRICAL DEMOLITION REQUIRED. WHERE EXISTING FLUSH MOUNTED DEVICES ARE INSTALLED IN MASONRY WALLS THAT ARE SCHEDULED TO REMAIN OR BE RE-USED, REMOVE THE WIRING DEVICES, COVERS AND ASSOCIATED BRANCH CIRCUIT WIRING, AND COVER THE REMAINING EMPTY ABANDONED BOX IN PLACE WITH A BLANK COVER PLATE.
2. REMOVE IN ITS ENTIRETY THE EXISTING MAIN DISTRIBUTION PANEL. FEEDERS FROM THE SECONDARY SIDE OF THE EXISTING EXTERIOR 500KVA PAD MOUNTED TRANSFORMER AND THAT TRANSFORMER ARE THE ONLY PORTIONS OF THE EXISTING ELECTRICAL SYSTEM THAT ARE TO REMAIN IN PLACE AND BE PROTECTED FOR RE-USE WITH THE NEW ELECTRICAL SYSTEM. DISCONNECT AND REMOVE EXISTING "MDP-A" AND LEAVE THE EXISTING SECONDARY SERVICE CONDUCTORS IN PLACE AND PROTECT THEM FROM DAMAGE DURING CONSTRUCTION FOR RECONNECTION TO THE FACILITY NEW MAIN DISTRIBUTION PANEL AS ILLUSTRATED ON THE CONSTRUCTION DOCUMENTS.

⬡SHEET KEYNOTES

1. EXISTING 500 KVA TRANSFORMER AND PAD TO REMAIN.
2. EXISTING METERING SHALL REMAIN.
3. EXISTING SECONDARY CONDUCTORS SHALL REMAIN & BE RECONNECTED TO NEW "MDP".

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

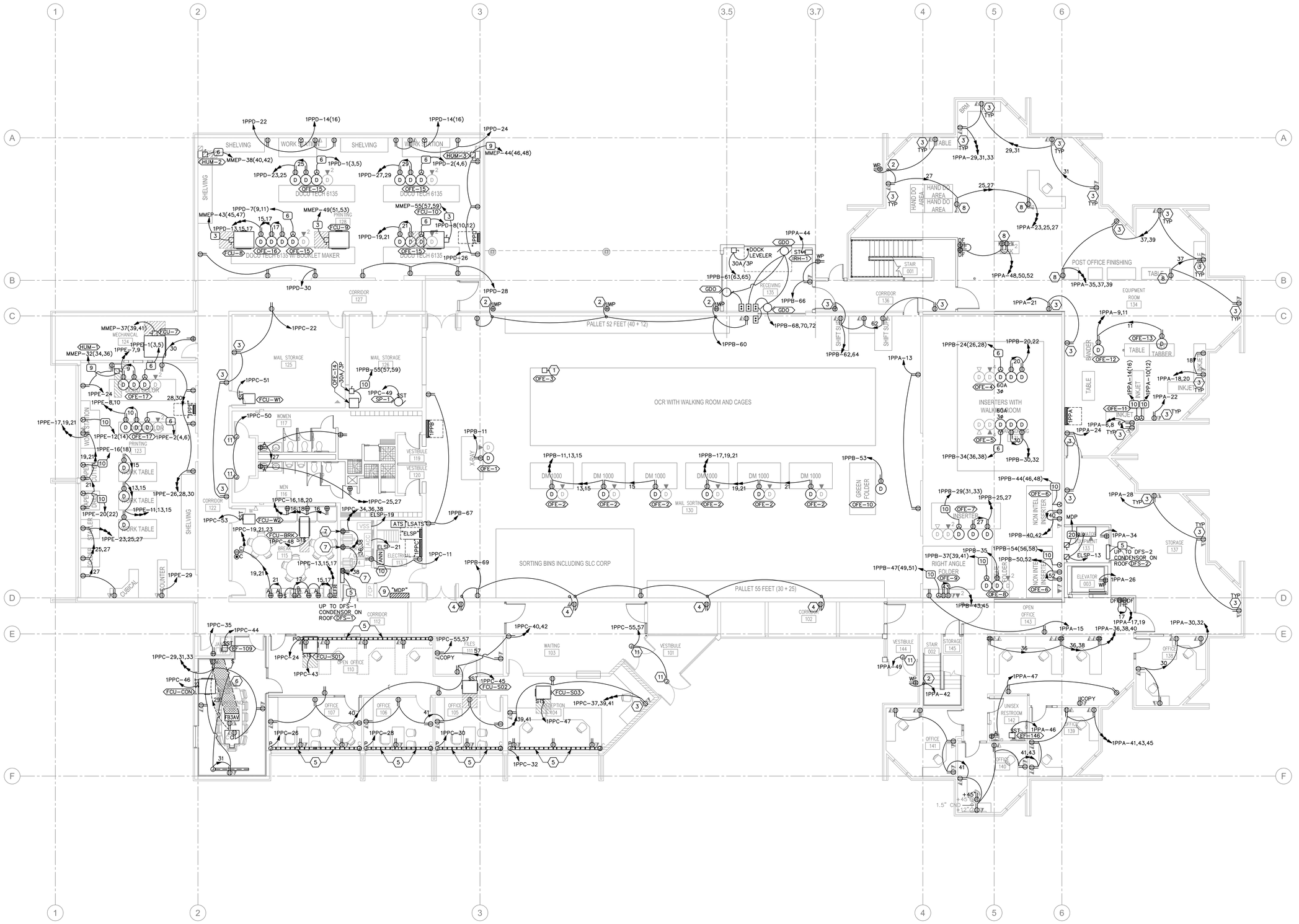
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 666362-2202 THOMAS R. HENARY JR. STATE OF UTAH
2008-01-13

REFERENCE ONE-LINE RISER, MECHANICAL SCHD, PAD DETAIL, SYMBOL LEGEND

ED 107

File Name: P:\2007\20070662\1Drawings\Sheet\62ED-107.dwg Last Plotted: 2009/01/13 @ 10:37 AM By: pss



1 MAIN LEVEL POWER PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SHEET KEYNOTES

1. PROVIDE HARD WIRED SEAL TIGHT CONNECTION. 100A, 3P, 4W DISC SWITCH W/100A FUSE ECNR. MOUNT ON 8"x8" WIREWAY ROUTED FROM CEILING TRUSS TO FLOOR STATION.
2. SURFACE MOUNT RECEPTACLES ON EXISTING MASONRY WALL. BACK FED FROM INSIDE JUNCTION BOX ON EXISTING WALL. USE A WIREMOLD SERIES 500 SURFACE BOX FOR INTERIOR APPLICATIONS AND A WEATHERPROOF BELL BOX FOR EXTERIOR APPLICATIONS.
3. SURFACE MOUNTED RECEPTACLE AND CONDUIT ON EXISTING WALL SURFACE – USE 500 WIREMOLD SERIES SURFACE BOX & RACEWAY SYSTEMS TO ABOVE CEILING. SEPARATE BOX & RACEWAY FOR DATA/COMM.
4. SURFACE MOUNTED RECEPTACLE IN WIREMOLD BOX FED FROM BEHIND WITH JUNCTION BOX ON WALL.
5. PROVIDE SERIES 3000 WIREMOLD WITH OUTLETS AS SHOWN FOR OFFICE AREA DATA/COMM & POWER OUTLETS. ROUTE WIREMOLD TO ABOVE CEILING & CLEAR WINDOWS & OPENINGS – PROVIDE SEPARATE RACEWAYS FOR POWER & DATA/COMM CABLING.
6. SAWCUT FLOOR FOR POWER & DATA/COMM CABLING AND FLOOR BOX.
7. MOUNT RECEPTACLES IN DATA/COMM EQUIPMENT RACKS.
8. PROVIDE TELE–POWER POLE AS REQUIRED.
9. EXTEND EXISTING CONCRETE PAD AS REQUIRED TO ACCOMMODATE NEW "MDP" DIMENSIONS.
10. GENERATOR REMOTE ANNUNCIATOR & EMERGENCY STOP SWITCH.
11. PROVIDE 120V FOR ADA DOOR OPERATOR.
12. 120V FOR ELECTRIFIED HARDWARE POWERED FROM CIRCUIT ELSP–17.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

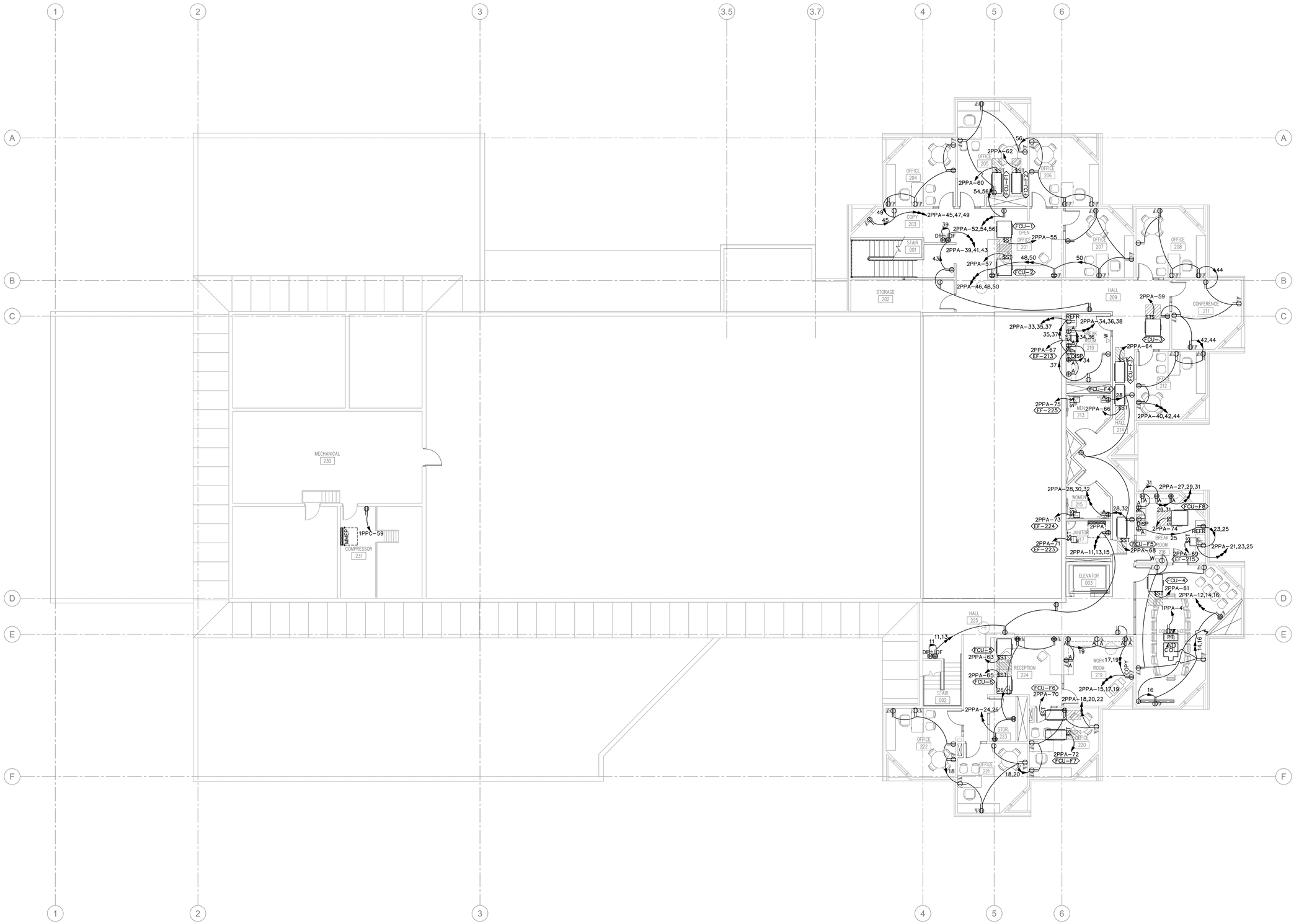
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH 2008-01-13

MAIN LEVEL POWER PLAN

EP 101

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-101.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss



1 UPPER LEVEL POWER PLAN

SCALE: 1/8" = 1'-0"

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

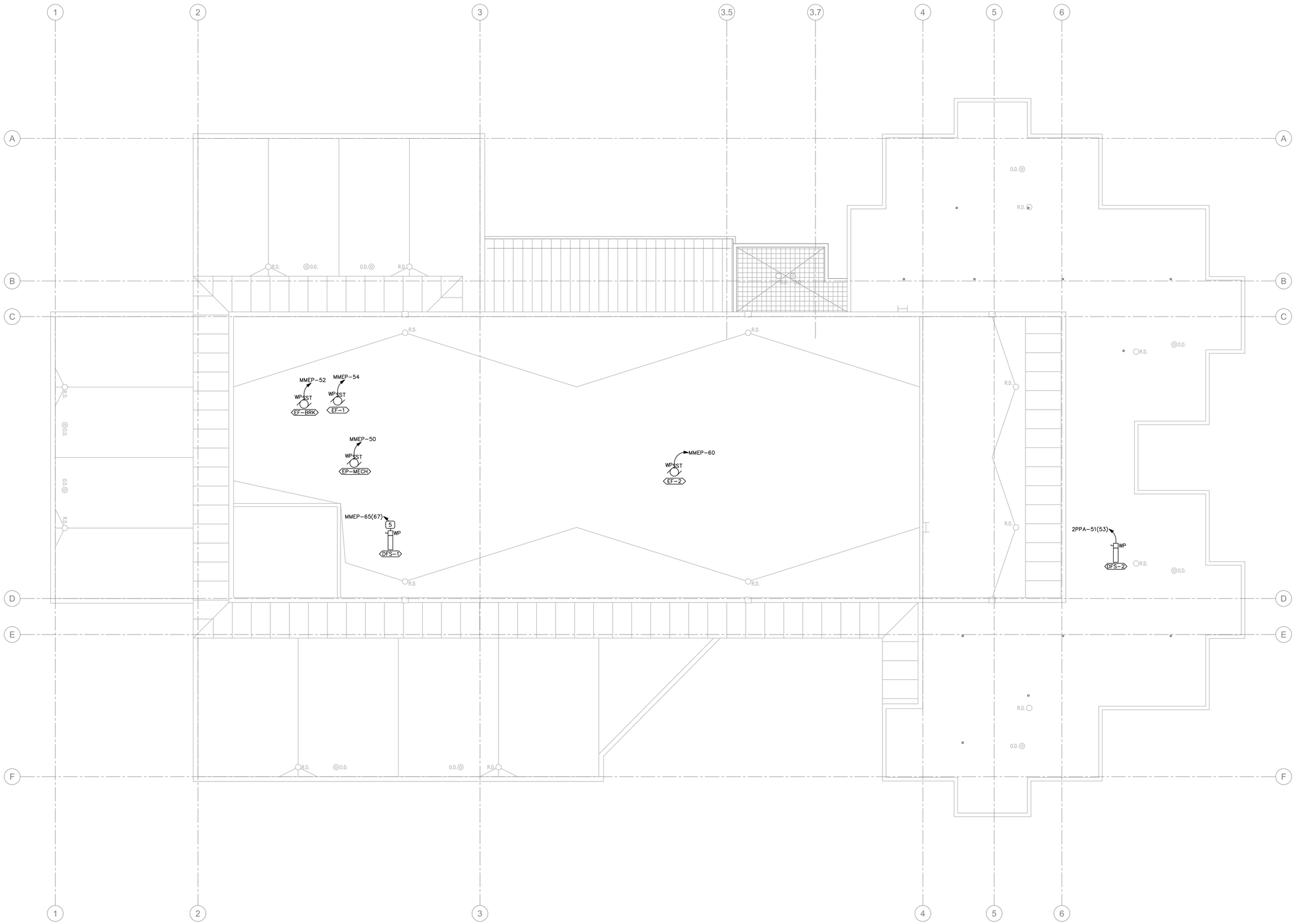
DATE/REVISION		PROJECT #.
12 · 18 · 08		08008
01 · 07 · 09	1	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 THOMAS LENARD JR. STATE OF UTAH
2008-01-13

UPPER LEVEL POWER PLAN

EP 102

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-102.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss



1 ROOF POWER PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09 (1)	DFCM REVIEW COMMENTS

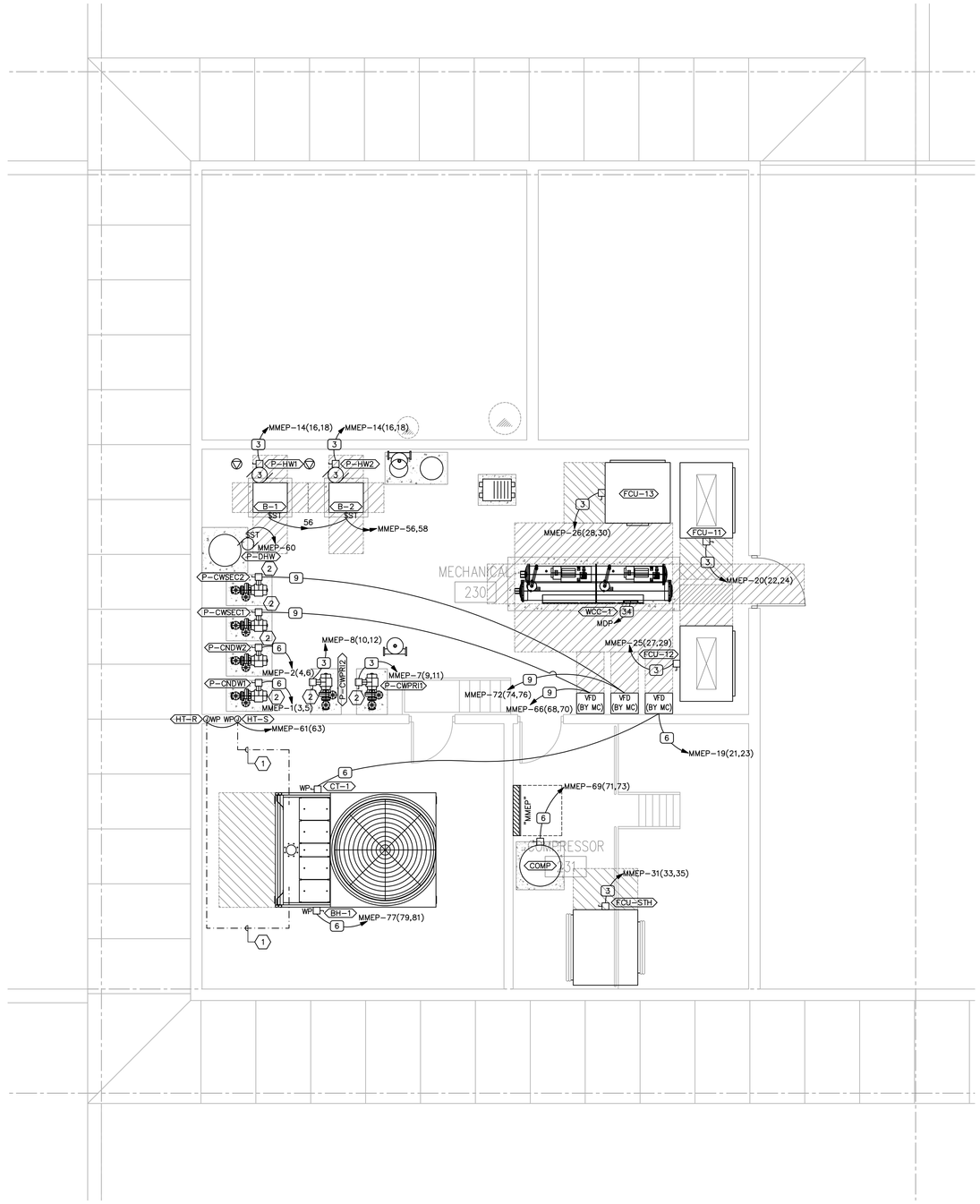
LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN A. HENARD JR. STATE OF UTAH

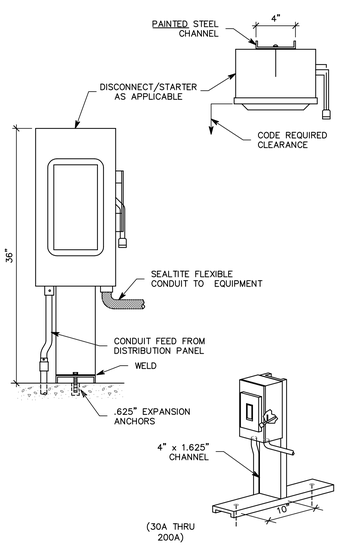
2008-01-13

ROOF POWER PLAN

EP 103

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-103.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss





2 REMOTE DISCONNECT/STARTER
NTS

1 ENLARGED MECHANICAL 230 POWER PLAN
1/4" = 1'-0"

NORTH

0 2' 4' 8'

SHEET KEYNOTES

1. INSTALL HEAT TRACE CABLE (6W/LNFT) SUPPLIED BY MECHANICAL CONTRACTOR.
2. MOUNT DISCONNECT AT PUMP BASE WITH STEEL CHANNEL AS ILLUSTRATED IN DETAIL 2/EP401. PROVIDE SEAL-TIGHT-FLEX CONNECTION FROM DISCONNECT TO MOTOR.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

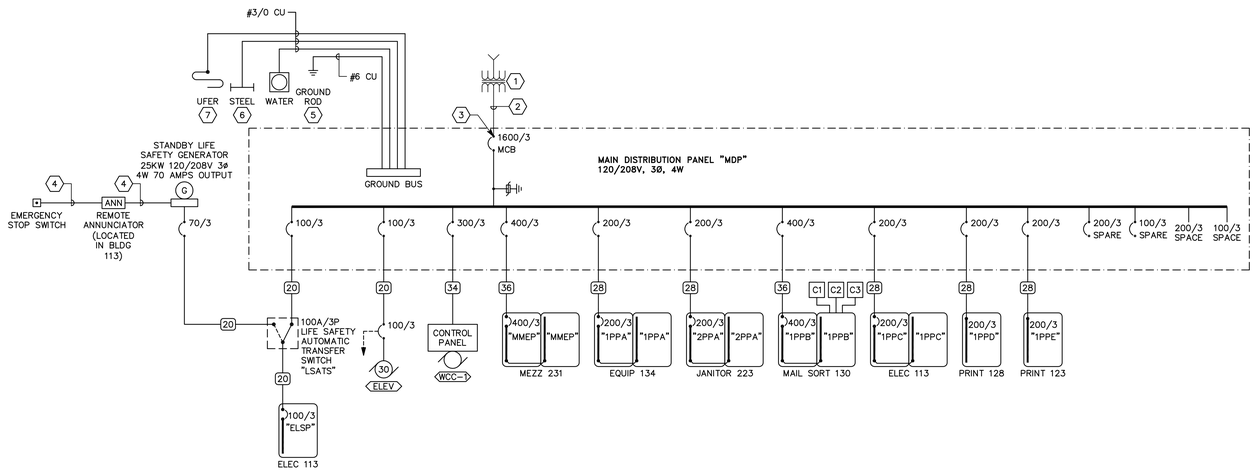
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH
2008-01-13

ENLARGED POWER PLANS

EP 401

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-401.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss



1 ONE-LINE DIAGRAM
NO SCALE

CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.) 5 IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
16	85	1.25	2	3	8	3	2	2
17	85	1.25	3	3	8	3	2	2
18	85	1.25	4	3	8	3	2	2
19	95	1.25	3	2	8	2	2	2
20	95	1.50	4	2	8	2	2	2
21	130	1.50	3	1	6	2	2	2
22	130	1.50	4	1	6	2	2	2
23	150	2	3	1/0	6	2	1/0	2
24	150	2	4	1/0	6	2	1/0	2
25	175	2	3	2/0	6	2	2/0	2
26	175	2	4	2/0	6	2	2/0	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	5 EA 3.50	4	400	4/0	4/0	4/0	4
54	2010	6 EA 3.50	4	400	250	250	250	4
55	2660	7 EA 4	4	500	350	350	350	4
56	3040	8 EA 4	4	500	500	500	500	4
57	4180	11 EA 4	4	500	500	500	500	4
58		5 EA 4						6
59		5						6
60		10 EA 4						6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. WHEN SYMBOL SUBSCRIPT INDICATES "IG", INCLUDE "IG" OR INSULATED GROUND CONDUCTOR SCHEDULED ALONG WITH GROUND OR EQUIPMENT GROUND CONDUCTOR. WHEN SYMBOL SUBSCRIPT INDICATES "SE", SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEMS.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

GENERAL SHEET NOTES

1. PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO SPECIFICATIONS SECTION 16071 FOR REQUIREMENTS.

⬡SHEET KEYNOTES

1. EXISTING UTILITY TRANSFORMER SHALL REMAIN FOR REUSE.
2. 5 SETS OF 4-300MCM COPPER UG FEEDERS FROM EXISTING TRANSFORMER FEEDING INTO EXISTING BUILDING.
3. CONNECT EXISTING 1600A SERVICE ENTRANCE FEEDERS TO NEW MDP. NEW MDP SHALL BE BOTTOM FED WITH BUS LUG ARRANGEMENTS TO ACCOMMODATE CONNECTION TO EXISTING CONDUCTORS WITHOUT SPLICES.
4. 1.25" CND WITH CONTROL CONDUCTORS AS REQUIRED FOR REMOTE ANNUNCIATOR AND EMERGENCY STOP SWITCH PER SELECTED MANUFACTURE'S RECOMMENDATIONS.
5. LOCATE DRIVEN GROUND ADJACENT TO NEW GENERATOR.
6. GROUND TO BUILDING STEEL IN MECHANICAL MEZZANINE 230.
7. LOCATE UFER GROUND AT BUILDING EXTERIOR ADJACENT TO EXISTING SECONDARY OF BUILDING TRANSFORMER.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09 (1)	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 656462-2202 TRUMAN A. LENARD JR. STATE OF UTAH
2008-01-13

ONE-LINE DIAGRAM

EP 601

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-601.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss

EQUIPMENT SCHEDULE

MARK	QTY	ITEM DESCRIPTION	LOAD DATA HP	kW	MCA	FLA	VOLT	PH	Hz	WIRE AND CONDUIT SIZE (SEE CONDUCTOR & CONDUIT SCHEDULE ON DRAWINGS)	OVERCURRENT PROTECTION FURN BY	DEVICE	LOCATION	DISCONNECT FURN BY	DEVICE	LOCATION	STARTER DATA FURN BY	DEVICE	LOCATION	NOTES	MARK
WCC-1	1	Water Cooled Chiller Mechanical Mezzanine			300	211	208	3	60	CC34 4-350 with #3G - 3"C	EC	CB	MDP	MC	Factory CP	@ Unit	N/A			5	WCC-1
FCU-1 Level 2	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-1 Level 2
FCU-2 Level 2	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-2 Level 2
FCU-3 Level 2	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-3 Level 2
FCU-4 Level 2	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-4 Level 2
FCU-5 Level 2	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-5 Level 2
FCU-6 Level 2	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-6 Level 2
FCU-7	1	Fan Coil Unit Printing	1.5	2.4	20	6.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-7
FCU-8	1	Fan Coil Unit Printing	.75	1.3	20	3.5	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-8
FCU-9	1	Fan Coil Unit Printing	.75	1.3	20	3.5	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-9
FCU-10	1	Fan Coil Unit Printing	.75	1.3	20	3.5	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-10
FCU-11	1	Fan Coil Unit Mail Sorting	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-11
FCU-12	1	Fan Coil Unit Mail Sorting	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-12
FCU-13	1	Fan Coil Unit Inserters	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-13
FCU-BRK	1	Fan Coil Unit Break Room	.25	.7	20	5.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-BRK
FCU-CON	1	Fan Coil Unit Conference Room	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-CON
FCU-1 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-1 Level 1
FCU-2 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-2 Level 1
FCU-3 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-3 Level 1
FCU-4 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-4 Level 1
FCU-5 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-5 Level 1
FCU-6 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-6 Level 1
FCU-7 Level 1	1	Fan Coil Unit Second Level Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-7 Level 1
FCU-8	1	Fan Coil Unit First Floor Offices	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-8
FCU-SO1	1	Fan Coil Unit South Offices 1	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-SO1
FCU-SO2	1	Fan Coil Unit South Offices 2	.33	.9	20	7.2	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-SO2
FCU-SO3 Level 1	1	Fan Coil Unit South Offices 3	.33	.9	20	7.2	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-SO3 Level 1
FCU-STH Level 1	1	Fan Coil Unit South Corridor	2	3	20	7.2	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-STH Level 1
FCU-W1 Level 1	1	Fan Coil Unit West Corridor	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-W1 Level 1
FCU-W2 Level 1	1	Fan Coil Unit West Corridor	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	MC	NF Disc	@ Unit	N/A			4	FCU-W2 Level 1
DFS-1(O) Server	1	Duct Free Split System Outdoor Unit on Roof		7.5	30	21	208	1	60	CC5 3-#10 with #10G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/2 WP	@ Unit NEMA 3R	N/A				DFS-1(O) Server
DFS-1(I) Server	1	Duct Free Split System Indoor Unit		3.6	20	10	208	1	60	CC2 3-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/2	@ Unit	N/A			3	DFS-1(I) Server
DFS-2(O) Elevator	1	Duct Free Split System Outdoor Unit on Roof		7.5	30	21	208	1	60	CC5 3-#10 with #10G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/2 WP	@ Unit NEMA 3R	N/A				DFS-2(O) Elevator
DFS-2(I) Elevator	1	Duct Free Split System Indoor Unit		3.6	20	10	208	1	60	CC2 3-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/2	@ Unit	N/A			3	DFS-2(I) Elevator
IRH-1	1	Infrared Radiant Heater Receiving Dock		.2	20	1.0	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	N/A				IRH-1
EF-1	1	Exhaust Fan Restrooms	.25	.7	20	5.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-1
EF-2	1	Exhaust Fan Mail Sort/Insteters	.25	.7	20	5.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-2
EF-BRK	1	Exhaust Fan Break Room	.13	.1	20	.6	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-BRK
EF-109	1	Exhaust Fan Janitor 109	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-109
EF-146	1	Exhaust Fan Janitor 109	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-146
EF-213	1	Exhaust Fan Break Room 213	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-213
EF-215	1	Exhaust Fan Break Room 215	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-215
EF-223	1	Exhaust Fan Janitor 223	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-223
EF-224	1	Exhaust Fan Women 224	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-224
EF-225	1	Exhaust Fan Men 225	Frac	.1	20	.3	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch	2	EF-225
EF-MECH	1	Exhaust Fan Mechanical Mezzanine	.13	.1	20	.6	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	MC	ESC See Notes	Wall - Next to Light Switch		
B-1	1	Bolier Mechanical Mezzanine		1.4	20	12	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	N/A				B-1
B-2	1	Bolier Mechanical Mezzanine		1.4	20	12	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	N/A				B-2
HUM-1	1	Humidifier Printer Area		10.2	40	28.3	208	3	60	CC9 4-#8 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 60/3	@ Unit	N/A				HUM-1
HUM-2	1	Humidifier Printer Area		6.8	25	18.9	208	3	60	CC6 4-#10 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A				HUM-2
HUM-3	1	Humidifier Printer Area		10.2	40	28.3	208	3	60	CC9 4-#8 with #10G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 60/3	@ Unit	N/A				HUM-3
P-CNDW1	1	Condensate Water Pump Mechanical Mezzanine	5	6.0	30	16.7	208	3	60	CC6 4-#10 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A			7	P-CNDW1
P-CNDW2	1	Condensate Water Pump Mechanical Mezzanine	5	6.0	30	16.7	208	3	60	CC6 4-#10 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A			7	P-CNDW2
P-CWPRI1	1	Chilled Water Primary Pump Mechanical Mezzanine	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A			7	P-CWPRI1
P-CWPRI2	1	Chilled Water Primary Pump Mechanical Mezzanine	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A			7	P-CWPRI2
P-CWSEC1	1	Chilled Water Secondary Pump Mechanical Mezzanine	7.5	8.7	40	24.2	208	3	60	CC9 4-#8 with #10G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 60/3	@ Unit	N/A	VFD By MC	@ Unit	1, 7	P-CWSEC1
P-CWSEC2	1	Chilled Water Secondary Pump Mechanical Mezzanine	7.5	8.7	40	24.2	208	3	60	CC9 4-#8 with #10G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 60/3	@ Unit	N/A	VFD By MC	@ Unit	1, 7	P-CWSEC2
P-DHW	1	Domestic Hot Water Pump Mechanical Mezzanine	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A				P-DHW
P-HW1	1	Heating Water Pump Mechanical Mezzanine	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A				P-HW1
P-HW2	1	Heating Water Pump Mechanical Mezzanine	3	3.8	20	10.6	208	3	60	CC3 4-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A				P-HW2
CT-1	1	Cooling Tower Roof Mounted	5	6.0	30	16.7	208	3	60	CC6 4-#10 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 30/3 WP	@ Unit NEMA 3R	MC	VFD By MC	@ Unit	1	CT-1
HT-S	1	Cooling Tower Supply Heat Trace		1.2	20	14.4	120	1	30	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	N/A			6	HT-S
HT-R	1	Cooling Tower Return Heat Trace		1.2	20	14.4	120	1	30	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	N/A			6	HT-R
SP-1	1	Sump Pump ESEW Catch Basin	.5	1.2	20	9.8	120	1	60	CC1 2-#12 with #12G - 3/4"C	EC	CB	See Drawings	EC	Thermal Switch	@ Unit	N/A				SP-1
AC-1	1	Air Compressor Existing - Relocated	5	6.0	30	16.7	208	3	60	CC6 4-#10 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit	N/A				AC-1
BH-1	1	Basin Heater Cooling Tower		6.0	30	16.7	208	3	60	CC6 4-#10 with #10G - 1"C	EC	CB	See Drawings	EC	NF Disc 30/3	@ Unit NEMA 3R	N/A				BH-1

NOTES LEGEND:

1. VFD Furnished with equipment by Mechanical Contractor and installed and wired by Electrical Contractor.
2. Exhaust Fan Furnished by Mechanical Contractor with Electronic Speed Control (ESC) switch installed and wired by Electrical Contractor. Locate ESC adjacent to Room light switch in a separate box.
3. DFS indoor unit fed from power circuit feeding outdoor unit on roof.
4. Mechanical Contractor shall furnish Fan Coil Units with a local disconnect switch that shall be mounted and wired by the Electrical Contractor.
5. Wire incomming equipment feeders into Factory Mounted Chiller Control Panel.
6. Mechanical Contractor shall furnish Heat Trace at 6 Watts per LF for CT Supply and Return Lines. Electrical Contractor shall provide power and install Heat Trace Cable.
7. Mount Motor Disconnect to channel Iron support from motor base with Seal-Tite flexible connection from Disconnect to Motor. Dee Detail 2 Drawing EP 401.

(1) OWNER FURNISHED EQUIPMENT (OFE)

MARK	QTY	ITEM DESCRIPTION	CONNECTION REQUIREMENTS
1	1	RAPISCAN X-RAY	1-110V DED 1-COMM
2	6	PITNEY BOWES DM1000	1-110V DED 1-COMM
3	1	BOWE BELL & HOWELL	1-100A - 120/208V 3-PHASE 4W DISCONNECT
4	1	B&H MAIL SCAN	2-110V DED 1-208V 3-PHASE - 60A W/TL CAP 4-DATA
5	1	B&H MAIL SCAN	2-110V DED 1-208V 3-PHASE - SEAL TIGHT CONN 60A 4-DATA
6	2	EXPEDITOR ROYAL INSERTERS	1-30A 3-PHASE TL PLUG 2-110V DED PLUG 2-DATA
7	1	BOWE BELL & HOWELL INSERTER 68012A	1-30A 3-PHASE TL PLUG 2-110V DED 2-DATA 1-PHONE
8	1	MBO BLUE FOLDER	1-30A 3-PHASE TL PLUG EASY HUBBELL L1250P 1-110V DED 2-DATA
9	1	RT ANGLE FOLDER	1-30A 3-PHASE TL PLUG 2-110V DED 2-DATA
10	1	GREEN FOLDER	1-110V DED
11	1	CHESHIRE 7000 INK JET VIDEO JET	2-30A 208V 1ø T.L. 2-110V DED 1-DATA/PHONE
12	1	BANDER	1-110V DED
13	1	TABBU	1-110V DED
14	1	FORK LIFT CHARGER	1-30A 3-POLE 208V
15	1	DOCUTECH 6135 B&W	1-50A 208V NEMA 14-50R FOR PRINTER FINISHER 1-110V DED - DFR 1-110V DED - INTERPOSER
16	1	DOCUTECK BOOKLET MAKER	1-110V DED
17	1	DOCUTECK COLOR	1-50A 208V NEMA 14-50R FOR PRINTER FINISHER 1-110V DED - DFR 1-110V DED - INTERPOSER

EQUIPMENT SCHEDULE KEY

E	DIVISION 16
Q	FURNISHED WITH THE EQUIPMENT
*	COORDINATE WITH THE DIVISION 15 TEMPERATURE CONTROL INSTALLER
**	AUTOMATIC CONTROL WIRING BY DIVISION 15

SHEET KEYNOTES

1. EC SHALL DISCONNECT ALL "OFE" AT THE EXISTING FACILITY TO ENSURE TOTAL COORDINATE OF RELOCATED EQUIPMENT AT THIS NEW LOCATION AND SHALL INCLUDE AN ADDITIONAL 16 HOURS OF ELECTRICIAN LABOR TO COORDINATE OWNER STARTUP AS REQUIRED.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION PROJECT #.
12 · 18 · 08 08008
01 · 07 · 09 (1) DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH 2008-01-13

EQUIPMENT SCHEDULES

EP 602

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-602.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss

PANEL "1PPA"

First Floor Power Panel "A"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN CB	Equipment Room 134	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1	20	1	1.4			Lights 144,145, 146, & 153	1.8	3.0			2.0	Lights 134	1.6			20	1	2
3	20	1	1.3			Lights 149,151, & 152	1.6		2.3		1.0	Conf 218 Poke Thru Recept		1.0		20	1	4
5	20	1	0.2			Lights Elevator 003	0.3			1.7	1.5	OFE-11 Cheshire 7000		1.5		20	1	6
7	20	1	1.0			Lights 147	1.3	2.5			1.5	OFE-11 Cheshire 7000		1.5		20	1	8
9	20	1		1.5		OFE-12 Bander	1.5		3.5		2.0	OFE-11 Cheshire 7000			2.0	30	2	10
11	20	1		1.5		OFE 13 - Tabber	1.5			3.5	2.0				2.0			12
13	20	1		0.6		Receptacles Sort 130	0.6	2.6			2.0	OFE-11 Cheshire 7000			2.0	30	2	14
15	20	1		0.8		Receptacles 143	0.8		2.8		2.0				2.0			16
17	20	1		1.0		DF 143	1.0			2.0	1.0	Ink Jet Table		1.0		20	1	18
19	20	1		1.0		DF 143	1.0	2.0			1.0	Ink Jet Table		1.0		20	1	20
21	20	1		1.0		Receptacles 134	1.0		2.0		1.0	Ink Jet Table		1.0		20	1	22
23	20	1		1.0		Receptacles 134	1.0			2.0	1.0	Receptacles 134		1.0		20	1	24
25	20	1		1.0		Receptacles 134	1.0	1.8			0.8	Elevator Pit Power		0.8		20	1	26
27	20	1		1.0		Receptacles 134	1.0		1.6		0.6	Receptacles Storage 137		0.6		20	1	28
29	20	1		1.0		Receptacles 134	1.0			2.0	1.0	Receptacles Office 138		1.0		20	1	30
31	20	1		1.0		Receptacles 134	1.0	2.0			1.0	Receptacles Office 138		1.0		20	1	32
33	20	1		1.0		Receptacles 134	1.0		2.0		1.0	Elevator Equip 133		1.0		20	1	34
35	20	1		1.0		Receptacles 134	1.0			2.0	1.0	Workstation Quads		1.0		20	1	36
37	20	1		1.0		Receptacles 134	1.0	2.0			1.0	Workstation Quads		1.0		20	1	38
39	20	1		1.0		Receptacles 134	1.0		2.0		1.0	Workstation Quads		1.0		20	1	40
41	20	1		0.8		Receptacles Office 141	0.8			1.3	0.5	Vestibule 144 GFI		0.5		20	1	42
43	20	1		0.8		Receptacles Office 141	0.8	1.0			0.2	IRH-1			0.2	20	1	44
45	20	1		0.8		Receptacles Office 139	0.8		0.9		0.1	EF-146			0.1	20	1	46
47	20	1		1.0		Receptacles Toilet 142,143	1.0			2.0	1.0	Drinking Fountain 134			1.0	20	1	48
49	20	1		0.5		ADA Door	0.5	1.5			1.0	Drinking Fountain 134			1.0	20	1	50
51	20	1				Spare	0.0		1.0		1.0	Receptacles 134		1.0		20	1	52
53	20	1				Spare	0.0			0.0	0.0	Spare				20	1	54
55	20	1				Spare	0.0	0.0			0.0	Spare				20	1	56
57	20	1				Spare	0.0		0.0		0.0	Spare				20	1	58
59	20	1				Spare	0.0			0.0	0.0	Spare				20	1	60
61	20	1				Spare	0.0	0.0			0.0	Spare				20	1	62
63	20	1				Spare	0.0		0.0		0.0	Spare				20	1	64
65	20	1				Spare	0.0			0.0	0.0	Spare				20	1	66
67	20	1				Spare	0.0	0.0			0.0	Spare				20	1	68
69	20	1				Spare	0.0		0.0		0.0	Spare				20	1	70
71	20	1				Spare	0.0			0.0	0.0	Spare				20	1	72
73	20	1				Spare	0.0	0.0			0.0	Spare				20	1	74
75	20	1				Spare	0.0		0.0		0.0	Spare				20	1	76
77	20	1				Spare	0.0			0.0	0.0	Spare				20	1	78
79	20	1				Spare	0.0	0.0			0.0	Spare				20	1	80
81	20	1				Spare	0.0		0.0		0.0	Spare				20	1	82
83	20	1				Spare	0.0			0.0	0.0	Spare				20	1	84

TOTALS: CONNECTED kVA PER PHASE **18 18 17** CONNECTED TOTAL kVA **53**
CONNECTED AMPS PER PHASE **153 151 138** CONNECTED AVERAGE AMPS PER PHASE **147**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 6kVA @125% = **7** kVA ALL OTHER LOADS @100% = **10** kVA DIVERSIFIED TOTAL kVA = **41**
RECEPTACLES 10kVA @100% = **10** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **113**
REMAINDER 27kVA @ 50% = **14** kVA

PANEL "1PPB"

First Floor Power Panel "B"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	400 AMPERE MAIN CB	Mail Sort 130	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1	20	1	1.0			Lights 131	1.3	2.5			1.9	Lights 130-Sw.Leg "a" - C1	1.5			20	1	2
3	20	1	1.0			Lights 131	1.3		2.5		1.9	Lights 130-Sw.Leg "a" - C1	1.5			20	1	4
5	20	1	1.3			Lights 131	1.6			2.8	1.9	Lights 130-Sw.Leg "a" - C1	1.5			20	1	6
7	20	1	0.8			Exterior Dock Lights	1.0	2.3			1.9	Lights 130-Sw.Leg "b" - C2	1.5			20	1	8
9	20	1	0.5			Lights 135	0.6		2.0		1.9	Lights 130-Sw.Leg "b" - C2	1.5			20	1	10
11	20	1		1.5		OFE-1 X-Ray Equipment	1.5			3.0	1.9	Lights 130-Sw.Leg "b" - C2	1.5			20	1	12
13	20	1		1.0		OFE-2 Pitney Bowes	1.0	2.5			1.9	Lights 130-Sw.Leg "c" - C3	1.5			20	1	14
15	20	1		1.0		OFE-2 Pitney Bowes	1.0		2.5		1.9	Lights 130-Sw.Leg "c" - C3	1.5			20	1	16
17	20	1		1.0		OFE-2 Pitney Bowes	1.0			2.5	1.9	Lights 130-Sw.Leg "c" - C3	1.5			20	1	18
19	20	1		1.0		OFE-2 Pitney Bowes	1.0	2.0			1.0	OFE-4 B&H Mail Scan		1.0		20	1	20
21	20	1		1.0		OFE-2 Pitney Bowes	1.0		2.0		1.0	OFE-4 B&H Mail Scan		1.0		20	1	22
23	20	1		1.0		OFE-2 Pitney Bowes	1.0			6.0	5.0				5.0			24
25	20	1		1.5		OFE-7 Bowie B&H Inserter	1.5	6.5			5.0	OFE-4 B&H Mail Scan			5.0	60	3	26
27	20	1		1.5		OFE-7 Bowie B&H Inserter	1.5		6.5		5.0				5.0			28
29					2.5		2.5			3.5	1.0	OFE-5 B&H Mail Scan		1.0		20	1	30
31	30	3			2.5	OFE-7 Bowie B&H Inserter	2.5	3.5			1.0	OFE-5 B&H Mail Scan		1.0		20	1	32
33					2.5		2.5		7.5		5.0				5.0			34
35	20	1		1.5		OFE-8 MBO Blue Folder	1.5			6.5	5.0	OFE-5 B&H Mail Scan			5.0	60	3	36
37					2.5		2.5	7.5			5.0				5.0			38
39	30	3			2.5	OFE-8 MBO Blue Folder	2.5		4.0		1.5	OFE-6 Royal Inserter		1.5		20	1	40
41					2.5		2.5			4.0	1.5	OFE-6 Royal Inserter		1.5		20	1	42
43	20	1		1.5		OFE-9 Right Angle Folder	1.5	4.0			2.5				2.5			44
45	20	1		1.5		OFE-9 Right Angle Folder	1.5		4.0		2.5	OFE-6 Royal Inserter			2.5	30	3	46
47					2.5		2.5			5.0	2.5				2.5			48
49	30	3			2.5	OFE-9 Right Angle Folder	2.5	4.0			1.5	OFE-6 Royal Inserter		1.5		20	1	50
51					2.5		2.5		4.0		1.5	OFE-6 Royal Inserter		1.5		20	1	52
53	20	1		1.5		OFE-10 Green Folder	1.5			4.0	2.5				2.5		1	54
55					2.5		2.5	5.0			2.5	OFE-6 Royal Inserter			2.5	30	1	56
57	30	3			2.5	OFE-14 Fork Lift Charger	2.5		5.0		2.5				2.5		1	58
59					2.5		2.5			4.0	1.5	Dock Receptacle GFI		1.5		20	1	60
55					2.5		2.5	3.5			1.0	Shit Supervisor Cube		1.0		20	1	62
57	30	3			2.5	Dock Leveler	2.5		3.5		1.0	Shit Supervisor Cube		1.0		20	1	64
59					2.5		2.5			3.5	1.0	Receptacles Receiving 135		1.0		20	1	66
67	20	1		1.0		Receptacles Sort 130	1.0	2.2			1.2	Overhead Door 130			1.2	20	1	68
69	20	1		1.0		Receptacles Sort 130	1.0		2.2		1.2	Receptacles Receiving 135			1.2	20	1	70
71					9.6		9.6			10.8	1.2	Receptacles Receiving 135			1.2	20	1	72
73	100	3			9.6	OFE-3 Bowie B&H	9.6	9.6			0.0	Spare				20	1	74
75					9.6		9.6		9.6		0.0	Spare				20	1	76
77	20	1				Spare	0.0			0.0	0.0	Spare				20	1	78
79	20	1				Spare	0.0	0.0			0.0	Spare				20	1	80
81	20	1				Spare	0.0		0.0		0.0	Spare				20	1	82
83	20	1				Spare	0.0			0.0	0.0	Spare				20	1	84

TOTALS: CONNECTED kVA PER PHASE **55 55 56** CONNECTED TOTAL kVA **166**
CONNECTED AMPS PER PHASE **459 461 463** CONNECTED AVERAGE AMPS PER PHASE **461**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 18kVA @125% = **23** kVA ALL OTHER LOADS @100% = **115** kVA DIVERSIFIED TOTAL kVA = **159**
RECEPTACLES 10kVA @100% = **10** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **441**
REMAINDER 23kVA @ 50% = **12** kVA

PANEL "1PPC"

First Floor Power Panel "C"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN CB	Electric Room 113	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1	20	1	0.7			Lights 101, 103, & 104	0.9	2.3			2.0	Lights 102, 112, 122, & 127	1.6			20	1	2
3	20	1	1.4			Lights 105, 106, & 107	1.8		2.1		0.9	Lights 115	0.7			20	1	4
5	20	1	1.2			Lights 110 & 111	1.5			2.6	1.8	Lights 117 & 119	1.4			20	1	6
7	20	1	1.5			Lights Conference 108	1.9	2.9			1.8	Lights 116 & 118	1.4			20	1	8
9	20	1	1.1			Lights Conference 108	1.4		2.7		2.0	Lights 123	1.6			20	1	10
11	20	1		0.8		Receptacles 113	0.8			1.5	0.9	Lights 125 & 126	0.7			20	1	12
13	20	1		1.2		Refrigerator Receptacle 115	1.2	2.8			2.0	Lights 128	1.6			20	1	14
15	20	1		1.0		Disposal 115	1.0		2.0		1.0	Vending Machine 115 Recpt		1.0		20	1	16
17	20	1		1.0		Counter Receptacles 115	1.0			2.0	1.0	Vending Machine 115 Recpt		1.0		20	1	18
19	20	1		1.0		Counter Receptacles 115	1.0	2.0			1.0	Vending Machine 115 Recept		1.0		20	1	20
21	20	1		1.0		Counter Receptacles 115	1.0		2.0		1.0	Receptacles 122 & 125		1.0		20	1	22
23	20	1		0.8		Ceiling TV Outlet 115	0.8			1.8	1.0	Office 110 Wiremold		1.0		20	1	24
25	20	1		1.5		Men 116	1.5	2.5			1.0	Office 107 Wiremold		1.0		20	1	26
27	20	1		1.5		Women 117	1.5		2.5		1.0	Office 106 Wiremold		1.0		20	1	28
29	20	1		1.2		Conference 108 Floor Box	1.2			2.2	1.0	Office 105 Wiremold		1.0		20	1	30
31	20	1		1.0		Conference 108 Power Screen	1.0	2.0			1.0	Office 104 Wiremold		1.0		20	1	32
33	20	1		1.2		Conference 108 Receptacles	1.2		2.2		1.0	Server Room Receptacles		1.0		20	1	34
35	20	1		0.8		Janitor 109 Receptacles	0.8			1.8	1.0	Server Room Receptacles		1.0		20	1	36
37	20	1		0.8		Receptacles 104	0.8	1.8			1.0	Server Room Receptacles		1.0		20	1	38
39	20	1		0.8		Receptacles 105	0.8		1.8		1.0	Receptacles 107		1.0		20	1	40
41	20	1		0.5		Receptacles 106	0.5			1.5	1.0	Receptacles 103, 110 & 111		1.0		20	1	42
43	20	1			1.2	FCU-S01 1/2 HP	1.2	1.3			0.1	EF-109			0.1	20	1	44
45	20	1			0.6	FCU-S02 1/3 HP	0.6		1.8		1.2	FCU-CON 1/2HP			1.2	20	1	46
47	20	1			0.6	FCU-S03 1/3 HP	0.6			1.1	0.5	FCU-BRK 1/4HP			0.5	20	1	48
49	20	1			1.2	SP-1 Sump Pump 1/2 HP	1.2	2.2			1.0	ADA Door			1.0	20	1	50
51	20	1			1.2	FCU-W1 1/2 HP	1.2		2.2		1.0	ADA Door			1.0	20	1	52
53	20	1			1.2	FCU-W2 1/2 HP	1.2			1.2	0.0	Spare				20	1	54
55	20	1			1.5	Copier	1.5	1.5			0.0	Spare				20	1	56
57	20	1		0.5		Receptacles Files	0.5		0.5		0.0	Spare				20	1	58
59	20	1			1.0	Mezz Receptacle	1.0			1.0	0.0	Spare				20	1	60
61	20	1				Spare	0.0	0.0			0.0	Spare				20	1	62
63	20	1				Spare	0.0		0.0		0.0	Spare				20	1	64
65	20	1				Spare	0.0			0.0	0.0	Spare				20	1	66
67	20	1				Spare	0.0	0.0			0.0	Spare				20	1	68
69	20	1				Spare	0.0		0.0		0.0	Spare				20	1	70
71	20	1				Spare	0.0			0.0	0.0	Spare				20	1	72
73	20	1				Spare	0.0	0.0			0.0	Spare				20	1	74
75	20	1				Spare	0.0		0.0		0.0	Spare				20	1	76
77	20	1				Spare	0.0			0.0	0.0	Spare				20	1	78
79	20	1				Spare	0.0	0.0			0.0	Spare				20	1	80
81	20	1				Spare	0.0		0.0		0.0	Spare				20	1	82
83	20	1				Spare	0.0			0.0	0.0	Spare				20	1	84

TOTALS: CONNECTED kVA PER PHASE **21 20 17** CONNECTED TOTAL kVA **58**
CONNECTED AMPS PER PHASE **178 165 139** CONNECTED AVERAGE AMPS PER PHASE **161**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 15kVA @125% = **19** kVA ALL OTHER LOADS @100% = **12** kVA DIVERSIFIED TOTAL kVA = **51**
RECEPTACLES 10kVA @100% = **10** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **142**
REMAINDER 21kVA @ 50% = **10** kVA

PANEL "1PPD"

First Floor Power Panel "D"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN CB	Printing 128	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1					3.0		3.0	6.0			3.0				3.0			2
3	50	3			3.0	OFE-15 Docutech 6135	3.0		6.0		3.0	OFE-15 Docutech 6135			3.0	50	3	4
5					3.0		3.0			6.0	3.0				3.0			6
7					3.0		3.0	6.0			3.0				3.0			8
9	50	3			3.0	OFE-15 Docutech 6135	3.0		6.0		3.0	OFE-15 Docutech 6135			3.0	50	3	10
11					3.0		3.0			6.0	3.0				3.0			12
13	20	1		1.5		OFE-15 Docutech Book Maker	1.5	3.0			1.5	Workstation 128-208V Recept			1.5	30	2	14
15	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5		3.0		1.5				1.5			16
17	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5			3.0	1.5	Workstation 128-208V Recept			1.5	30	2	14
19	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5	3.0			1.5				1.5			16
21	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5		2.5		1.0	Print 128 Receptacles		1.0		20	1	22
23	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5			2.5	1.0	Print 128 Receptacles		1.0		20	1	24
25	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5	2.5			1.0	Print 128 Receptacles		1.0		20	1	26
27	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5		2.5		1.0	Print 128 Receptacles		1.0		20	1	28
29	20	1		1.5		OFE-15 Docutech 6135 Rec	1.5			2.5	1.0	Print 128 Receptacles		1.0		20	1	30
31	20	1				Spare	0.0	0.0			0.0	Spare				20	1	32
33	20	1				Spare	0.0		0.0		0.0	Spare				20	1	34
35	20	1				Spare	0.0			0.0	0.0	Spare				20	1	36
37	20	1				Spare	0.0	0.0			0.0	Spare				20	1	38
39	20	1				Spare	0.0		0.0		0.0	Spare				20	1	40
41	20	1				Spare	0.0			0.0	0.0	Spare				20	1	42

TOTALS: CONNECTED kVA PER PHASE **21 20 20** CONNECTED TOTAL kVA **61**
CONNECTED AMPS PER PHASE **171 167 167** CONNECTED AVERAGE AMPS PER PHASE **168**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 0kVA @125% = **0** kVA ALL OTHER LOADS @100% = **42** kVA DIVERSIFIED TOTAL kVA = **56**
RECEPTACLES 10kVA @100% = **10** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **156**
REMAINDER 9kVA @ 50% = **4** kVA

PANEL "1PPE"

First Floor Power Panel "E"

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	200 AMPERE MAIN CB	Printing 123	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1					3.0		3.0	3.0			0.0							2
3	50	3			3.0	OFE-17 Docucolor	3.0		3.0		0.0	OFE-17 Docucolor				50	3	4
5					3.0		3.0			3.0	0.0							6
7	20	1		1.5		OFE-17 Docucolor Recept	1.5	3.0			1.5	OFE-17 Docucolor Recept		1.5		20	1	8
9	20	1		1.5		OFE-17 Docucolor Recept	1.5		3.0		1.5	OFE-17 Docucolor Recept		1.5		20	1	10
11	20	1		1.0		Worktable 123 Receptacles	1.0			3.0	2.0	Workstation 123-208V Recept			2.0	30	2	12
13	20	1		1.0		Worktable 123 Receptacles	1.0	3.0			2.0				2.0			14
15	20	1		1.0		Worktable 123 Receptacles	1.0		3.0		2.0	Paper Cutter 123-208V Recept			2.0	30	2	16
17	20	1		1.0		Workstation 123 Receptacles	1.0			3.0	2.0				2.0			18
19	20	1		1.0		Print 123 Cutter	1.0	3.0			2.0	Paper Drill 123-208V Recept			2.0	30	2	20
21	20	1		1.0		Print 123 Paper Drill	1.0		3.0		2.0				2.0			22
23	20	1		1.0		Print 123 Paper Stapler	1.0			2.0	1.0	Receptacles 123		1.0		20	1	24
25	20	1		1.0		Print 123 Paper Folder	1.0	2.0			1.0	Receptacles 123		1.0		20	1	26
27	20	1		1.0		Print 123 Work Cube	1.0		2.0		1.0	Receptacles 123		1.0		20	1	28
29	20	1		1.0		Print 123 Counter Receptacles	1.0			2.0	1.0	Receptacles 124		1.0		20	1	30
31	20	1				Spare	0.0	0.0			0.0	Spare				20	1	32
33	20	1				Spare	0.0		0.0		0.0	Spare				20	1	34
35	20	1				Spare	0.0			0.0	0.0	Spare				20	1	36
37	20	1				Spare	0.0	0.0			0.0	Spare				20	1	38
39	20	1				Spare	0.0		0.0		0.0	Spare				20	1	40
41	20	1				Spare	0.0			0.0	0.0	Spare				20	1	42

TOTALS: CONNECTED kVA PER PHASE **14 14 13** CONNECTED TOTAL kVA **41**
CONNECTED AMPS PER PHASE **117 117 108** CONNECTED AVERAGE AMPS PER PHASE **114**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 0kVA @125% = **0** kVA ALL OTHER LOADS @100% = **21** kVA DIVERSIFIED TOTAL kVA = **36**
RECEPTACLES 10kVA @100% = **10** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **100**
REMAINDER 10kVA @ 50% = **5** kVA

PANEL "ELSP"

Emergency LIFE SAFETY Panel

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	100 AMPERE MAIN CB	Electric Room 113	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1	20	1	0.7			Second Floor SE Egress/Exit	0.9	1.4			0.9	First Floor SE Egress/Exit	0.7			20	1	2
3	20	1	0.7			Second Floor NE Egress/Exit	0.9		1.7		1.3	First Floor NE Egress/Exit	1.0			20	1	4
5	20	1	0.5			First Floor SW Egress/Exit	0.6			1.8	1.6	Room 131 Egress/Exit	1.3			20	1	6
7	20	1	1.2			Sort 130 Egress/Exit	1.5	2.1			1.1	Sort 130 Egress/Exit	0.9			20	1	8
9	20	1	1.3			First Floor NW Egress/Exit	1.6		2.6		1.6	Sort 130 Egress/Exit	1.3			20	1	10
11	20	1	0.6			First Floor W Egress/Exit	0.8			2.1	1.9	Sort 130 Egress/Exit	1.5			20	1	12
13	20	1	0.5			Elevator Cab Lighting	0.6	1.3			1.0	Rooms 113 & 114 Egress/Exit	0.8			20	1	14
15	20	1	1.0			Fire Alarm Control Panel	1.3		1.5		0.5	Fire/Smoke Damper			0.5	20	1	16
17	20	1			1.6	Door Power	1.6			2.1	0.5	Fire/Smoke Damper			0.5	20	1	18
19	20	1			1.0	VSS	1.0	1.5			0.5	Fire/Smoke Damper			0.5	20	1	20
21	20	1			1.0	MCP	1.0		1.5		0.5	Fire/Smoke Damper			0.5	20	1	22
23	20	1				Spare	0.0			0.5	0.5	Fire/Smoke Damper			0.5	20	1	24
25	20	1				Spare	0.0	0.5			0.5	Fire/Smoke Damper			0.5	20	1	26
27	20	1				Spare	0.0		0.5		0.5	Fire/Smoke Damper			0.5	20	1	28
29	20	1				Spare	0.0			0.0	0.0	Spare				20	1	30
31	20	1				Spare	0.0	0.0			0.0	Spare				20	1	32
33	20	1				Spare	0.0		0.0		0.0	Spare				20	1	34
35	20	1				Spare	0.0			0.0	0.0	Spare				20	1	36
37	20	1				Spare	0.0	0.0			0.0	Spare				20	1	38
39	20	1				Spare	0.0		0.0		0.0	Spare				20	1	40
41	20	1				Spare	0.0			0.0	0.0	Spare				20	1	42

TOTALS: CONNECTED kVA PER PHASE **7 8 7** CONNECTED TOTAL kVA **21**
CONNECTED AMPS PER PHASE **57 65 54** CONNECTED AVERAGE AMPS PER PHASE **59**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 14kVA @125% = **18** kVA ALL OTHER LOADS @100% = **7** kVA DIVERSIFIED TOTAL kVA = **25**
RECEPTACLES 0kVA @100% = **0** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **68**
REMAINDER 0kVA @ 50% = **0** kVA

MAIN DISTRIBUTION PANELBOARD "MDP"

VOLTS/PHASE/WIRE:	MAIN SIZE & TYPE:	LOCATION:	NOTES:
120/208 V, 3 PH 4 WIRE	1600 AMPERE MAIN CB	Electrical 113	Service Entrance Rated, Bottom Feed

ACCESSORIES: IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR. CUSTOM MANUFACTURE SO BOTTOM FEED LUGS WILL ACCOMMODATE EXISTING SE CONDUCTOR

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	PANEL / EQUIPMENT	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	PANEL / EQUIPMENT	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1	200	3	4.0	11.2	3.2	Panel "1PPA"	19.4	43.0			25.9	Panel "2PPA"	5.0	12.7	6.9	200	3	2
			1.3	12.7	4.1		18.4		42.6		25.7		4.9	10.9	8.7			
			0.2	13.3	3.0		16.6			40.3	24.3		2.1	13.0	8.7			
3	400	3	6.3	10.5	38.3	Panel "1PPB"	56.7	61.9			8.0	Panel "ELSP"	4.8	0.0	2.0	100	3	4
			6.0	11.0	38.3		56.8		62.6		8.6		5.3	0.0	2.0			
			5.8	11.5	38.3		57.1			62.1	7.5		3.9	0.0	2.6			
5	200	3	6.8	9.5	5.0	Panel "1PPC"	23.0	63.4			42.1	Panel "MMEP"	0.0	0.0	42.1	400	3	6
			4.8	11.0	4.0		21.0		60.7		41.1		0.6	0.0	40.3			
			3.3	10.1	3.3		17.5			57.2	40.5		0.0	0.0	40.5			
7	200	3	0.0	5.5	15.0	Panel "1PPD"	20.5	45.8			25.3	Chiller "WCC-1"	0.0	0.0	25.3	300	3	8
			0.0	6.5	13.5		20.0		45.3		25.3		0.0	0.0	25.3			
			0.0	6.5	13.5		20.0			45.3	25.3		0.0	0.0	25.3			
9	200	3	0.0	7.0	7.0	Panel "1PPE"	14.0	24.6			10.6	Elevator 30HP	0.0	0.0	10.6	100	3	10
			0.0	7.0	7.0		14.0		24.6		10.6		0.0	0.0	10.6			
			0.0	6.0	7.0		13.0			23.6	10.6		0.0	0.0	10.6			
11	200	3				Spare	0.0	0.0			0.0	Spare				100	3	12
							0.0		0.0		0.0							
							0.0			0.0	0.0							
13	200	3				Space	0.0	0.0			0.0	Space				100	3	14
							0.0		0.0		0.0							
							0.0			0.0	0.0							

TOTALS: CONNECTED kVA PER PHASE **239 236 229** CONNECTED TOTAL kVA **703**
CONNECTED AMPS PER PHASE **1989 1965 1904** CONNECTED AVERAGE AMPS PER PHASE **1954**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 65kVA @125% = **81** kVA ALL OTHER LOADS @ 75% = **347** kVA DIVERSIFIED TOTAL kVA = **521**
RECEPTACLES 10kVA @100% = **10** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **1446**
REMAINDER 166kVA @ 50% = **83** kVA

PANEL "MMEP"

Mezzanine Mechanical Power Panel

VOLTS/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN SIZE & TYPE:	LOCATION:	CABINET:	NOTES:
120/208 V, 3 PH 4 WIRE	22" W x 6" D, BOLT-ON	400 AMPERE MAIN CB	Mezzanine 231	Surface	

ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS

CKT NO	OCP AMP	OCP POLE	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	DESCRIPTION	LCL kVA	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	LCL kVA	DESCRIPTION	LOAD (kVA) LTG	LOAD (kVA) CO	LOAD (kVA) PWR	OCP AMP	OCP POLE	CKT NO
1					2.0		2.0	4.0			2.0				2.0			2
3	30	3			2.0	P-CNDW1 5 HP	2.0		4.0		2.0	P-CNDW2 5 HP			2.0	30	3	4
5					2.0		2.0			4.0	2.0				2.0			6
7					1.3		1.3	2.6			1.3				1.3			8
9	20	3			1.3	P-CWPRI-1 3 HP	1.3		2.6		1.3	P-CWPRI-2 3 HP			1.3	20	3	10
11					1.3		1.3			2.6	1.3				1.3			12
13					1.3		1.3	2.6			1.3				1.3			14
15	20	3			1.3	P-HW1 3 HP	1.3		2.6		1.3	P-HW2 3 HP			1.3	20	3	16
17					1.3		1.3			2.6	1.3				1.3			18
19					2.0		2.0	3.3			1.3				1.3			20
21	30	3			2.0	CT-1 5 HP	2.0		3.3		1.3	FCU-11 3 HP			1.3	20	3	22
23					2.0		2.0			3.3	1.3				1.3			24
25					1.3		1.3	2.6			1.3				1.3			26
27	20	3			1.3	FCU-12 3 HP	1.3		2.6		1.3	FCU-13 3 HP			1.3	20	3	28
29					1.3		1.3			2.6	1.3				1.3			30
31					1.0		1.0	4.4			3.4				3.4			32
33	20	3			1.0	FCU-STH 2 HP	1.0		4.4		3.4	HUM-1			3.4	40	3	34
35					1.0		1.0			4.4	3.4				3.4			36
37					0.8		0.8	3.1			2.3				2.3			38
39	20	3			0.8	FCU-7 1.5 HP	0.8		3.1		2.3	HUM-2			2.3	25	3	40
41					0.8		0.8			3.1	2.3				2.3			42
43					0.5		0.5	3.9			3.4				3.4			44
45	20	3			0.5	FCU-8 3/4 HP	0.5		3.9		3.4	HUM-3			3.4	40	3	46
47					0.5		0.5			3.9	3.4				3.4			48
49					0.5		0.5	0.7			0.2	EF-MECH			0.2	20	1	50
51	20	3			0.5	FCU-9 3/4 HP	0.5		0.7		0.2	EF-BRK			0.2	20	1	52
53					0.5		0.5			0.8	0.3	EF-1			0.3	20	1	54
55					0.5		0.5	1.9			1.4	Boiler B-1			1.4	20	1	56
57	20	3			0.5	FCU-10 3/4 HP	0.5		1.9		1.4	Boiler B-2			1.4	20	1	58
59					0.5		0.5			1.7	1.2	P-DHW 1/2 HP			1.2	20	1	60
61	20	1			1.2	CT-1 Supply Heat Trace	1.2	1.5			0.3	EF-2			0.3	20	1	62
63	20	1			1.2	CT-1 Return Heat Trace	1.2		1.8		0.8	Mechanical 230 Lights	0.6			20	1	64
65	30	2			1.5	DFS-1	1.5			4.5	3.0				3.0			66
67					1.5		1.5	4.5			3.0	P-CWSEC-1 7.5 HP			3.0	40	3	68
69					2.0		2.0		5.0		3.0				3.0			70
71	30	3			2.0	Existing Air Compressor-5 HP	2.0			5.0	3.0				3.0			72
73					2.0		2.0	5.0			3.0	P-CWSEC-2 7.5 HP			3.0	40	3	74
75	20	1				Spare	0.0		3.0		3.0				3.0			76
77					2.0		2.0			2.0	0.0	Spare				20	1	78
79	30	3			2.0	BH-1 CT Basin Heater	2.0	2.0			0.0	Spare				20	1	80
81					2.0		2.0		2.0		0.0	Spare				20	1	82
83	20	1				Spare	0.0			0.0	0.0	Spare				20	1	84

TOTALS: CONNECTED kVA PER PHASE **42 41 41** CONNECTED TOTAL kVA **124**
CONNECTED AMPS PER PHASE **351 341 338** CONNECTED AVERAGE AMPS PER PHASE **343**

NEC DIVERSIFIED LOAD CALCULATIONS
LIGHTING 1kVA @125% = **1** kVA ALL OTHER LOADS @100% = **123** kVA DIVERSIFIED TOTAL kVA = **124**
RECEPTACLES 0kVA @100% = **0** kVA 25% OF LARGEST MOTOR = **0** kVA AVERAGE AMPS PER PHASE = **343**
REMAINDER 0kVA @ 50% = **0** kVA

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

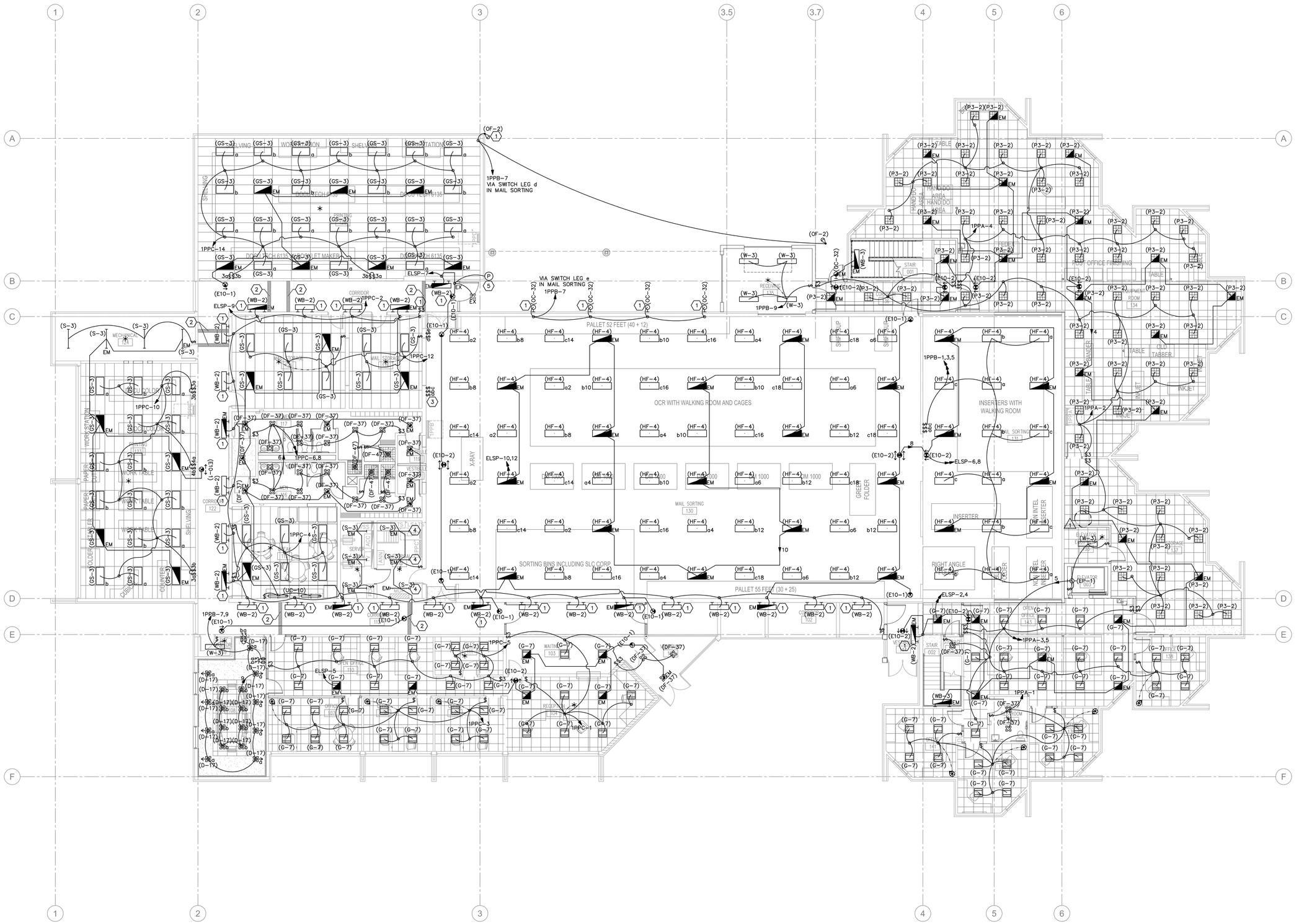
DATE/REVISION: 12 · 18 · 08; 01 · 07 · 09 △1 DFCM REVIEW COMMENTS
PROJECT #. 08008

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH
2008-01-13

PANEL SCHEDULES

EP 603

File Name: P:\2007\20070662\1Drawings\Sheet\62EP-603.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss



1 MAIN LEVEL LIGHTING PLAN
SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SHEET KEYNOTES

1. FEED FIXTURES OR DEVICES MOUNTED ON EXISTING MASONRY WALLS FROM JUNCTION BOX ON OPPOSITE SIDE OF WALL WHERE SURFACE MOUNTED RACEWAYS ARE PERMISSIBLE.
2. ELECTRICAL CONTRACTOR TO ROUTE ALL CONDUITS THAT RUN OVER HEAD, THRU THIS AREA.
3. ROUTE MAIL SORTING 130 LIGHTING CONTROLS AS FOLLOWS:
   - 3.1. SWITCH LEG a – VIA CONTACTOR C-1, CIRCUITS 1PPB-2,4,6.
   - 3.2. SWITCH LEG b – VIA CONTACTOR C-2, CIRCUITS 1PPB-8,10,12.
   - 3.3. SWITCH LEG c – VIA CONTACTOR C-3, CIRCUITS 1PPB-14,16,18.
   - 3.4. MOUNT CONTACTORS ADJACENT TO PANEL "1PPB".
4. SUSPEND ELEC 113 FIXTURES (3) FROM THE HIGH BAY CEILING WITH CHAIN.
5. CONNECT TO EXISTING SOFFIT RECESSED FIXTURE TO REMAIN AND BE REUSED. INTERCEPT EXISTING CONDUIT AND CONNECT TO NEW EMERGENCY NITE LITE CIRCUIT – PROVIDE PHOTOCELL FACING NORTH AT ROOF LINE TO PROVIDE DAYLIGHT CONTROL OF THIS FIXTURE.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

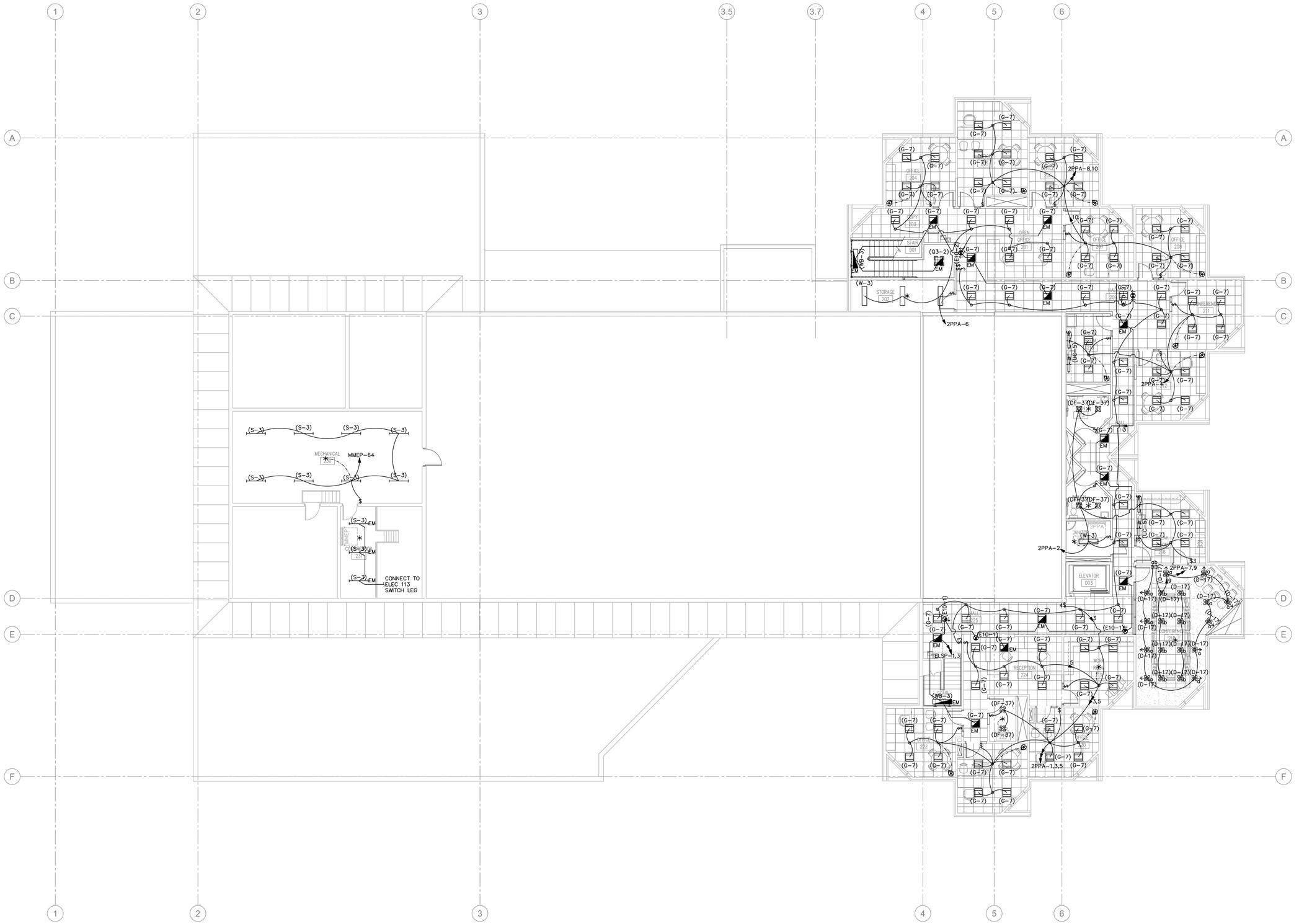
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH
2008-01-13

MAIN LEVEL LIGHTING PLAN

EL 101

File Name: P:\2007\20070662\1Drawings\Sheet\62EL-101.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss



1 UPPER LEVEL LIGHTING PLAN

SCALE: 1/8" = 1'-0"

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09 (1)	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN A. LENARD JR. STATE OF UTAH
2008-01-13

UPPER LEVEL LIGHTING PLAN

EL 102

File Name: P:\2007\20070662\1Drawings\Sheet\62EL-102.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss

LIGHTING FIXTURE SCHEDULE

POST ACADEMY/HOMELAND SECURITY EMERGENCY OPERATIONS CENTER

NOTE TO BIDDERS: COMPLY WITH SECTIONS 16511, 16521, AND 16570 OF THE SPECIFICATIONS. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE.

SYMBOL MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER	NOTES
CM	STEEL LINEAR FIXTURES: LENGTHS AND CONFIGURATIONS SHOWN ON THE DRAWINGS; LAMPS FOUR FOOT WHERE POSSIBLE; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; INTERNAL CONCEALED FASTENERS; COLOR AS NOTED AND/OR APPROVED BY ARCHITECT; ORIENT FIXTURE ACCORDING TO ARCHITECTS/ ENGINEER'S INSTRUCTIONS. ADJUSTABLE CABLE MOUNTING INSTALL LEVEL AND STRAIGHT WITH INVISIBLE SPLICES. PROVIDE ALL REQUIRED HANGERS, SPLICERS, END CAPS, JOINTS, FEEDS, ETC., FOR A COMPLETE INSTALLATION. VISUAL APPROVAL REQUIRED PRIOR TO BID						
CM-1	MODULAR, DIR/IND, 4' LONG ADJUSTABLE AIRCRAFT CABLE, COILED CABLE FEED EMERGENCY WHERE SHOWN .71 BALLAST FACTOR/ 60/40 OPTICS	2-F32T8 RE835 3100 LUMENS	40W	120/ 277V	PINNACLE FOCAL POINT	GP9-2F32T8-4-AC48XXJB-277-1-CBA-DL60 FV3S-DR2-2F32T8-1C-277-E-CXX-CBA-4'	
CM-2	MODULAR, DIR/IND, 8' LONG ADJUSTABLE AIRCRAFT CABLE, COILED CABLE FEED EMERGENCY WHERE SHOWN .71 BALLAST FACTOR/ 60/40 OPTICS	4-F32T8 RE835 3100 LUMENS	40W	120/ 277V	PINNACLE FOCAL POINT	GP9-2F32T8-4-AC48XXJB-277-1-CBA-DL60 FV3S-DR2-2F32T8-1C-277-E-CXX-CBA-8'	
CM-3	MODULAR, DIR/IND, 12' LONG ADJUSTABLE AIRCRAFT CABLE, COILED CABLE FEED EMERGENCY WHERE SHOWN .71 BALLAST FACTOR/ 60/40 OPTICS	6-F32T8 RE835 3100 LUMENS	120W	120/ 277V	PINNACLE FOCAL POINT	GP9-2F32T8-4-AC48XXJB-277-1-CBA-DL60 FV3S-DR2-2F32T8-1C-277-E-CXX-CBA-12'	
D	DOWNLIGHT; THERMALLY PROTECTED HOUSING; TO ACCOMMODATE MULTIPLE ALUMINUM TRIMS AND REFLECTOR ASSEMBLIES AS LISTED BELOW; MAX 8" DEEP, NON-IC HOUSINGS EXCEPT AS NOTED.						
D-17	RECESSED 150W ADJUSTABLE DOWN- LIGHT, 360 DEGREE X 35 DEGREE ADJUSTMENT, 40 DEGREE BEAM SPREAD UNLESS OTHERWISE NOTED. CLEAR ALZAK CONE, WHITE TRIM.	100HIR PAR38FL	150W	120V	PRESCOLITE HALO LITHONIA CAPRI LIGHTOLIER INFINITY	PBX-TA38 C (11-1/2 X 7-1/2 X 7-1/2) H7T-478 (10-1/2 X 7-1/2 X 7-1/2) LP6 6AC2A (13 X 12-1/4 X 7-3/4) CINADJ615-RMS40CLR (12-1/8 X 7-5/8 X 7-5/8) 1700P1-1738 CL (15-1/2 X 10-7/8 X 9-3/4) DR75 150 (PAR38/MED) MWT BH (13-15/16 X 13-15/16 X 11-5/16)	
DF	FLUORESCENT DOWNLIGHT; THERMALLY PROTECTED HOUSING: TO ACCOMMODATE MULTIPLE TRIMS AND REFLECTOR ASSEMBLIES FOR LAMPS AS LISTED BELOW; ELECTRONIC BALLASTS; LOW IRIDESCENT REFLECTOR FINISH (EVEN IF NOT SHOWN IN CATALOG #); SELF FLANGING TRIM UNLESS NOTED.						
DF-37	RECESSED DOWNLIGHT; 8-10" APERTURE, HORIZONTAL, 2-32W CF-AMALGAM LAMPS, CLEAR.	2-CF-A32 RE835	100W	120/ 277V	PORTFOLIO INFINITY LIGHTOLIER LITHONIA OMEGA PRESCOLITE	C9232E-9251LI (17-15/16 X 16-1/2 X 9-3/8) PH10 232T-EB (GX24Q-3) 277 BH (23 X 17 X 9) 8039CLW/8232HU (15-5/8 X 14 X 9) AF 2/32TRT 10AR MVOLT (17-1/2 X 17-3/16 X 9-3/4) S82H32-U-T82HPLT-CS (14-11/16 X 13-1/4 X 6-11/16) CFT932HEB-STF902H (16-1/4 X 14-7/16 X 8-9/16)	
DF-47	RECESSED DOWNLIGHT; SHOWER LIGHT TRIM, 9" APERTURE, HORIZONTAL, 32W CF-AMALGAM LAMP. GASKET.	1-CF-A32 RE835	50W	120/ 277V	OMEGA INFINITY LIGHTOLIER HALO PRESCOLITE LITHONIA	OM61H32PLTSRD-SWR (24-13/16 X 14-1/2 X 6-3/16) PVSL68 132T-EB (GX24Q-3) 277 BH (16-1/4 X 14-7/16 X 7-7/8) 8097CWHW/7132BU (15 X 12-3/4 X 6-1/2) C7132-1E-7180LI-120 (14 X 13-5/16 X 8) CFT832HEB-WTT2F (16-1/4 X 14-7/16 X 7-1/8) LGF-132TRT9 RW DOLGSGT MVOLT (17-3/4 X 17-1/4 X 8-5/8)	
E10	EXIT SIGN: METAL HOUSING; CEILING MOUNT, SEE DRAWINGS; ARROWS PER PLANS; LED LAMPS; EDGE LIGHTED CLEAR LENS; GREEN LETTERS ON CLEAR BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS. UNITS SHOWN ARE CEILING MOUNT MODELS. CONTRACTOR TO PROVIDE MATCHING LOW LEVEL WALL MOUNTED UNITS WHERE REQUIRED.						
E10-1	SINGLE FACE:	LED	20W	120/ 277V	DUAL-LITE MCPHILBEN EELP LITHONIA ISOLITE CHLORIDE LIGHTOLIER	LECSGWA 45VL-1-GC-XX EDG 1 GC W EM LRP W 1 GC XX 120/277 EDGL-S-S-G-BK (BLACK HOUSING) STDLX-X-1-GC-X LEAC1GCX	
E10-2	DUAL FACE:	LED	20W	120/ 277V	DUAL-LITE MCPHILBEN EELP LITHONIA ISOLITE CHLORIDE LIGHTOLIER	LECDGWA 45VL-2-GM-XX EDG 2 GC W EM LRP W 2 GMR XX 120/277 EDGL-D-S-G-BK (BLACK HOUSING) STDLX-X-2-GC-X LEAC2GC7	
EP	ELEVATOR PIT LIGHTS: INCANDESCENT VAPORTIGHT; COPPER-FREE CAST ALUMINUM BODY AND GUARD; CAST ALUMINUM ADAPTERS FOR MOUNTING AS NOTED, CLEAR TEMPERED GLASS GLOBE, U.L. LISTED FOR USE IN WET LOCATIONS.						
EP-1	WALL ARM MOUNT ON FLUSH OR RECESSED OUTLET BOX.	100A/19	100W	120V	ARK DAY-BRITE RAL EXCELINE SPERO	AVP21-200 VIS-100-I-12-W-G VPWB100GG75 RLW-100-IN-L-CG-C-1 VW30-42-G	
G	INDIRECT TROFFERS: RECESSED FOR LAY-IN GRID; HINGED FLUSH STEEL DOOR WITH LATCH; EARTHQUAKE CLIPS, PROGRAM START ELECTRONIC BALLASTS; LONG COMPACT FLUORESCENT LAMPS; ONE BALLAST PER FIXTURE, 100-10% DIMMING BALLAST WHERE SHOWN.						
G-7	2X2, 2-LAMP CENTER BASKET.	2-17WT8 RE835	65W	277/120V	METALUX DAYBRITE COLUMBIA LITECONTROL LSI LITHONIA LIGHTOLIER	2RDI-217-RP-UNV-ER8 2AVG-217-PMW-UNV-SPEC STR22-217G-MPO-SPEC-U G-D-TD22C-22T8-CWM-ELB-UNV 2LLC-G-217-RPW-SSBPS-UE 2AVG-217-MDR-MVOLT-GEB10PS CFS2GPF217-UNV-PSX	
GF	TROFFERS: RECESSED FOR FLANGE MOUNTED CEILING; STATIC; HINGED AND LATCHED STEEL DOOR; .125 ACRYLIC PRISMATIC LENS, MINIMUN 1/8"; PRORGAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS. MAX 5" DEEP. SPECIFICATION GRADE.						
GF-2	2X2, 2 LAMP.	2-F31T8U RE835	65W	120/ 277V	LITHONIA METALUX DAYBRITE COLUMBIA LSI LIGHTOLIER	2SP8F 2U31 A12125 MVOLT TUBRHP (3-11/16" DEPTH) FP-2U6T8A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) 2DF231U6-FS21-UNV-1/2EB-SPEC (4-3/8" DEPTH) ST822-232U6F-FSA12.125-EB8LHPRUNV (4-1/4" DEPTH) FLA125 2U32 SD SSO10PS UE (4" DEPTH) XT2FVI2U6-U-SOP (3-1/2" DEPTH)	
GS	TROFFERS: RECESSED FOR LAY-IN GRID; STATIC; HINGED AND LATCHED STEEL DOOR; .125 ACRYLIC PRISMATIC LENS, MINIMUN 1/8"; EARTHQUAKE CLIPS; MAX 5" DEEP; SPECIFICATION GRADE; PROGRAM START ELECTRONIC BALLASTS, T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
GS-2	2X2, 2 LAMP.	2-F31T8U RE835	65W	120/ 277V	LITHONIA METALUX DAYBRITE COLUMBIA LSI LIGHTOLIER	2 SP8G 2U31 A12125 MVOLT TUBRHP (4-1/4" DEPTH) 2GP-2U6T8A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) 2DPG231U6-FS21-UNV-1/2EB-SPEC (4-3/8" DEPTH) ST822-232U6G-FSA12.125-EB8LHPRUNV (4-1/4" DEPTH) LA125 2U32 SD SSO10PS UE (4" DEPTH) XT2GVI2-2U-UNV-SOP (4-1/2" DEPTH)	
GS-3	2X4, 2 LAMP.	2-F32T8 RE835	65W	120/ 277V	LITHONIA METALUX DAYBRITE LSI LIGHTOLIER COLUMBIA	2 SP8G 232 A12125 MVOLT TUBRHP (4-1/2" DEPTH) 2GP-232A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) 2DPG232-FS21-UNV-1/2EB-SPEC (4-3/8" DEPTH) LA125 232 SD SSO10PS UE (4" DEPTH) XT2GVI232-UNV-SOP (3-5/8" DEPTH) ST824-232G-FSA12.125-EB8LHPRUNV (3-3/4" DEPTH)	
HF	HIGH BAY INDUSTRIAL FLUORESCENT FIXTURES: SURFACE OR PENDANT MOUNT ELECTRONIC BALLAST; DR ACRYLIC LENS , SECURE LATCH, CONTINOUS HINGE, WIREGUARD						
HF-4	HEAVY DUTY SURFACE LUMINAIRE, 48" X 17", 4-LAMP	4-F54T5HO RE841	240W	120/ 277V	LA LIGHTING	HB1609-4-4M-SR-DRP8-2E5H-UNV/WG11	

SYMBOL MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR LENS/LOUVER/REFLECTOR/OTHER	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER	NOTES
OC	WALL PACK: ADJUSTABLE CUT OFF; FULL PERIMETER GASKETING: WET LOCATION; STAINLESS STEEL HINGES AND LATCHES; PROJECTING LENS; HPF BALLAST; SEE ELEVATION FOR MOUNTING HEIGHT, COLOR AS SPECIFIED BY ARCHITECT.						
OC-32	CF42, RECESSED J BOX. MEDIUM THROW, SQUARE, DECORATIVE WITH INTEGRAL PHOTOCELL	CF42 RE835	50W	120/ 277V	MCPHILBEN LSI LITHONIA LUMARK LSI	101MT-42TRF-CBA-DT GBWS-FTM-42CFL-F-120/277-XX-NO WST 42TRT MD MVOLT PLIP-T-42-MT-XX GBWS FTM 42CFL F UE XXX W/LAMP	
OF	OUTDOOR FLOOD LIGHTS; FULLY GASKETED; WET LABEL; TYPES AND WATTAGES AS INDICATED. MOUNT AS INDICATED ON ELEVATIONS, COLOR PER ARCHITECT, VANDAL RESISTANT CONSTRUCTION. SECURE MOUNTING BRACKED AS REQUIRED, AIMING ADJUSTMENT WITH FIRM LOCKING DEVICE. MULTI-TAP BALLAST.						
OF-2	200PSMH, FLOODLIGHT, WIDE BEAM SPREAD. WALL MOUNTED AREA FLOOD.	200PSMH	200W	MTBV	LUMARK HUBBELL LITHONIA EXCELINE GE DAYBRITE	MPWR-65X-200-MT MHS-0200W-268 TFL 200M TA2 TB SCWA TFS20PMA-8 PF1S20M0A16X6XX FLI200P-MT-PSC	
P3	PARABOLIC LOUVER FIXTURES WITH 3" LOUVERS IN PLASTIC PROTECTORS AND FULL DEPTH REFLECTOR; SIZE AS NOTED; PROGRAM START ELECTRONIC BALLASTS PER SPECS; T8 LAMPS; ONE BALLAST PER FIXTURE UNLESS NOTED FOR SWITCHING; STATIC OR AIR RETURN AND HEAT REMOVAL; EARTHQUAKE CLIPS INSTALLED ON ON GRID FIXTURES; HINGED AND LATCHED DOOR; LOW IRIDESCENT LOUVER FINISH, VERTICAL GRAIN DIE STAMPED LOUVERS; TWO FORMED BALLAST COVERS; MAX 1300 CD/M2 ABOVE 45 DEGREES.						
P3-2	2X2, 9 CELL LAY-IN; SEMI-SPECULAR SILVER LOUVERS. STATIC.	2-F31T8U RE835	65W	120/ 277V	LITHONIA DAYBRITE METALUX COLUMBIA LSI LIGHTOLIER	2PM3NGB-2U316-9LD-MVOLT-TUBRHP-2R 2P3GS231U6-33SL-UNV-1/2-EB-SPEC 2EP3GX-2U6S33I-UNV-PROGRAM START P4D24-232U6G-LD33-S-EB8LHPRUNV N2PG9 2U32 FD SSO10PS UE DPS2G9LS26U-U-SOP	
P3-6	2X4, 18 CELL LAY-IN; SEMI-SPECULAR SILVER, 3-LAMP. STATIC.	3-F32T8 RE835	95W	120/ 277V	LITHONIA DAYBRITE METALUX COLUMBIA LSI LIGHTOLIER HEWILLIAMS	2PM3NGB-332-18LD-MVOLT-1/3TUBRHP-2R 2P3GS332-36SL-UNV-1/3-EB-SPEC 2EP3GX-332S36I-UNV-PROGRAM START-2BC P4D24-332G-LD36-S-3EB8LHPRUNV N2PG18 332 FD SSO10PS 2BC UE DPS2G18LP332-U-03P HE3G-D24-332-36S-EB8PXLH3*OS-UNV	
Q3	PARABOLIC LOUVER FIXTURES WITH 3" LOUVERS IN PLASTIC PROTECTORS AND FULL DEPTH REFLECTOR; SIZE AS NOTED; PROGRAM START ELECTRONIC BALLASTS PER SPECS; T8 LAMPS; ONE BALLAST PER FIXTURE UNLESS NOTED FOR SWITCHING; STATIC OR AIR RETURN AND HEAT REMOVAL; EARTHQUAKE CLIPS INSTALLED ON GRID FIXTURES; HINGED AND LATCHED DOOR; LOW IRIDESCENT LOUVER FINISH, VERTICAL GRAIN DIE STAMPED LOUVERS; TWO FORMED BALLAST COVERS; MAX 1300 CD/M2 ABOVE 45 DEGREES.						
Q3-2	2X2, 9 CELL FLANGE; SEMI-SPECULAR SILVER. STATIC.	2-F32T8U RE835	65W	120/ 277V	LITHONIA DAYBRITE METALUX COLUMBIA LIGHTOLIER LSI	2PM3NFB-2U31-9LD-MVOLT-TUBRHP 2P3FS231U6-33SL-UNV-1/2-EB-SPEC 2P3FX-2U6S33I-UNV-PROGRAM START P4D24-232U6G-LD33-S-EB8LHPRUNV-FK22 DPS2F9LS26U-U-SOP N2PF9 2U32 FD SSO10PS UE	
S	FLUORESCENT STRIP LIGHT: STEEL CONSTRUCTION; WHITE PAINTED FINISH; SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
S-3	4', 2-LAMP.	2-F32T8 RE835	65W	120/ 277V	LITHONIA LIGHTOLIER METALUX DAYBRITE HUBBELL COLUMBIA	C232-MVOLT-TUBRHP SW232-U-SOP SS-232-UNV-PROGRAM START T232-UNV-1/2-EB-SPEC C232UPS CS4-232-EB8120/277 PROG	
UC	UNDERCABINET LIGHT: LOW PROFILE X 5 1/4"DEEP X LENGTH AS NOTED; ACRYLIC DIFFUSER.						
UC-5	33 1/2" LONG, WHITE.	T5/8W T5/13W	40W	120V	NULITE FSC LIGHTOLIER CREATIVE DURAY EELP	NU 33 120 3033 TSL1813W120 TI-33 DUC 813 TUS2133T5ELB	
UC-10	48 1/8" LONG, WHITE.	F32T8	40W	120V	NULITE FSC LIGHTOLIER CREATIVE DURAY LSI	112 32 ELB10 3148-T8-EL TCU32WS0120 UC-132-T8 HUC 132 PSEB120 SL1 32 SSO 120	
W	LOW PROFILE WRAPAROUND: SURFACE MOUNTED SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS WRAPAROUND ACRYLIC PRISMATIC DIFFUSER; WHITE ENAMEL ENDPLATES; MINIMUM CU OF 70 @ 80/50/20 AND RCR=1; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
W-3	NARROW BODY WRAPAROUND; 2-LAMP, APPROX; 3" X 10" X 48".	2-F32T8 RE835	65W	120/ 277V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI COLUMBIA	LB232-MVOLT-TUBPHP CAN232-UNV-1/2-EB-SPEC WS-232A-UNV-PROGRAM START WA232-U-SOP PR 232 SSO10PRS UE WC4-232-EBPS120/277	
WB	WALL MOUNTED FLUORESCENT LOCATED ABOVE WALL ELEMENT (MIRROR/WHITEBOARD, ETC.): AS INDICATED ON DRAWINGS; WITH ACRYLIC INJECTION MOLDED; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.						
WB-1	WALL MOUNTED ASYMMETRIC INDIRECT. ADJUSTABLE	1 T5HO RE841	55W	120/ 277V	LITECONTROL	W-AID-34-1-4-T5HO-PFF-CWM-LPEB-1CFQ	
WB-2	WALL MOUNTED ASYMMETRIC INDIRECT. ADJUSTABLE	1 T5HO RE841	55W	120/ 277V	LITECONTROL	W-AID-34-1-4-T5HO-PFF-CWM-LPELB-1CWQ-120/277	
WB-3	2-LAMP, WALL MOUNT 48", STEEL ENCLOSURE, DOWNLIGHT ONLY; ACRYLIC INJECTION MOLDED PRISMATIC DIFFUSER.	2-F32T8 RE835	65W	120/ 277V	DAYBRITE LIGHTOLIER METALUX L.A.L. COLUMBIA LITHONIA LSI	CD232W-UNV-1/2-EB-SPEC CWB232-WB-U-SOP BI-232-UNV-PROGRAM START BSQ100-2-4R-INJ-WHT-T8EB-120/277-UPS WAL4-232-EBPS120/277 WP 232 DO MVOLT-TUBPHP WB 232 SSO10PRS UE	

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

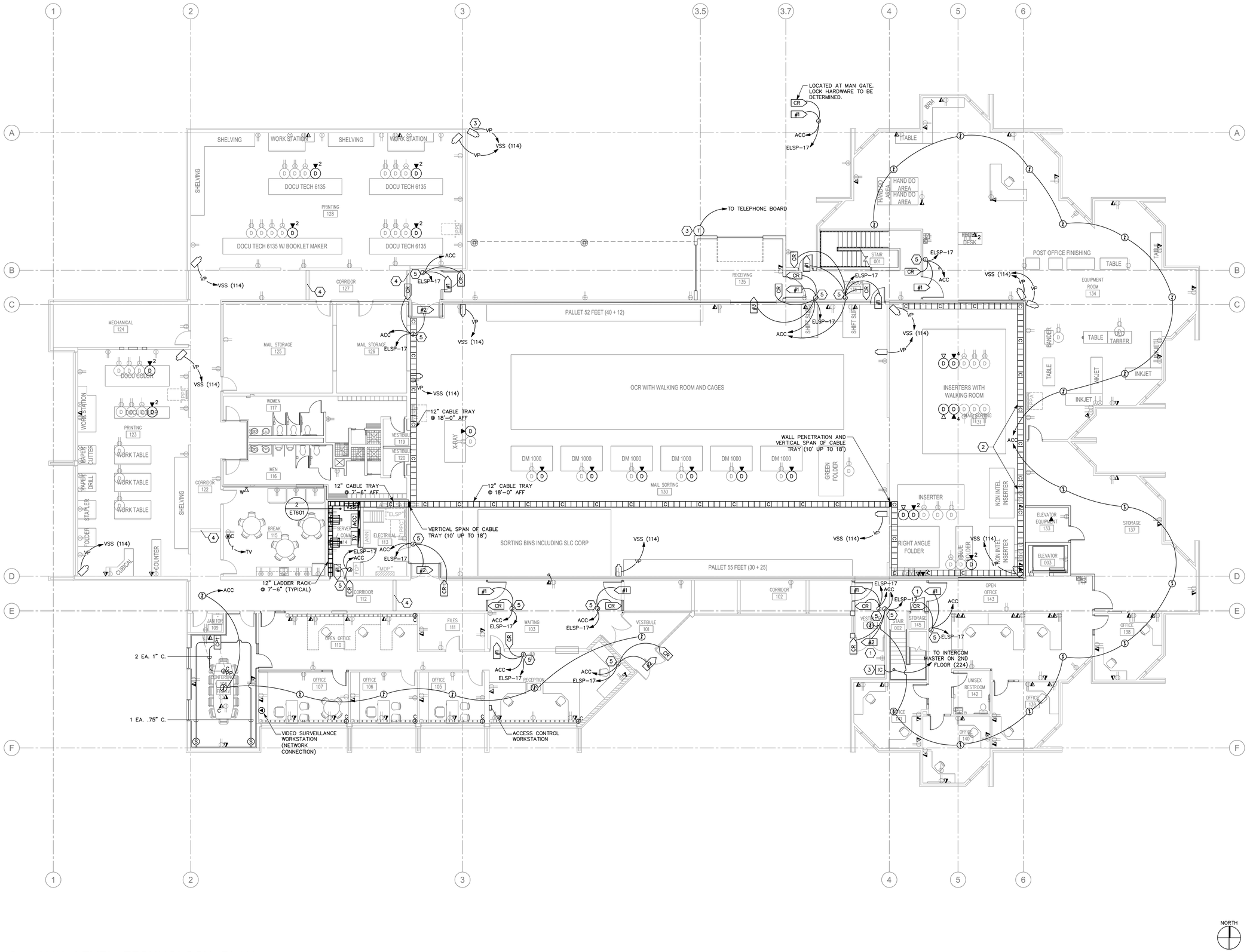
DATE/REVISION		PROJECT #.
12 · 18 · 08		08008
01 · 07 · 09	1	DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER
No. 6563462-2202
TRUMAN HENARD JR.
STATE OF UTAH
2008-01-13

LIGHTING FIXTURE SCHEDULE

EL 601

File Name: P:\2007\20070662\1Drawings\Sheet\62EL-601.dwg Last Plotted: 2009/01/13 @ 10:43 AM By: pss



1 MAIN LEVEL TECHNOLOGY PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SHEET KEYNOTES

1. THESE TWO DOORS SHALL BE OPENED REMOTELY FROM THE BUTTON LOCATED IN RECEPTION 224.
2. INSTALL 12" CABLE TRAY @ TWO DIFFERENT HEIGHTS. LAYER ONE SHALL BE AT 10'-0" FOR MAIN LEVEL DATA CABLING. LAYER TWO SHALL BE AT 18'-0" FOR UPPER LEVEL DATA CABLING.
3. NO EXPOSED CONDUIT ON BUILDING EXTERIOR. ROUTE RACEWAY OR CONDUIT ON BUILDING INTERIOR AND INTO BACK OF DEVICE.
4. PROVIDE 2-2" RACEWAYS CONCEALED INSIDE NEW CABLE BRIDGE SPANNING OPEN CORRIDOR FOR DATA/VOICE AND SECURITY SYSTEM CABLING.
5. 120V FOR ELECTRIFIED HARDWARE POWERED FROM CIRCUIT ELSP-17.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

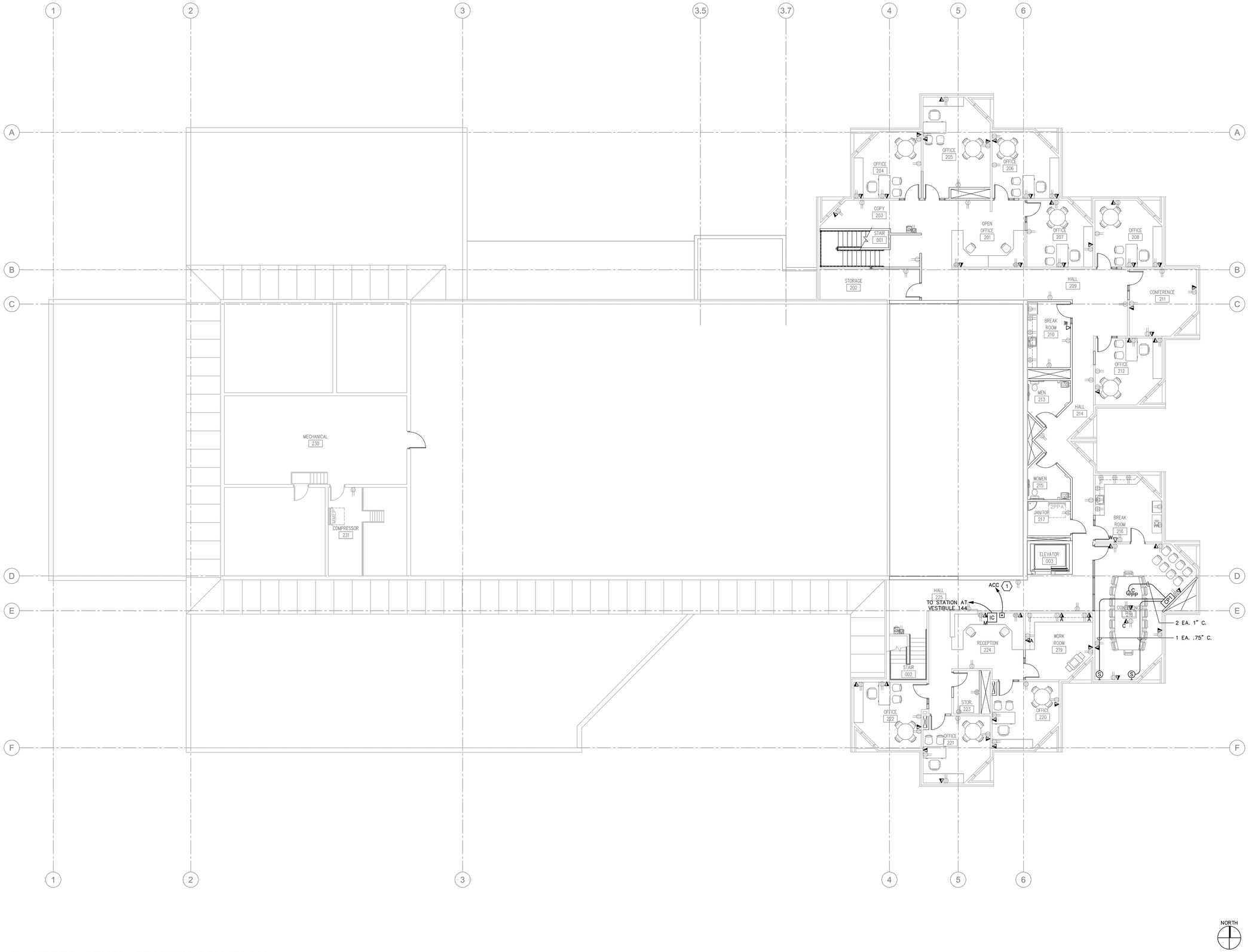
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN LENARD JR. STATE OF UTAH
2008-01-13

MAIN LEVEL TECHNOLOGY PLAN

ET 101

File Name: P:\2007\20070662\1Drawings\Sheet\62ET-101.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss



1 UPPER LEVEL TECHNOLOGY PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SHEET KEYNOTES

1. THIS DOOR RELEASE BUTTON SHALL OPEN THE TWO DOORS IDENTIFIED ON SHEET ET101 BY KEYED NOTE #1.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

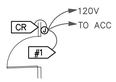
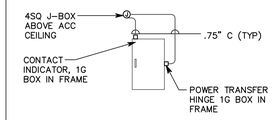
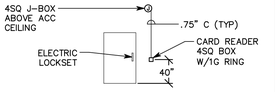
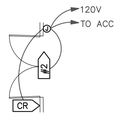
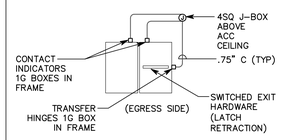
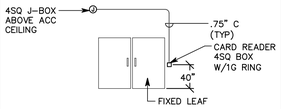
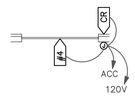
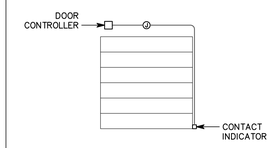
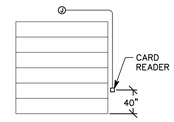
LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH
2008-01-13

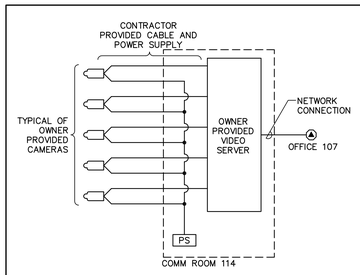
UPPER LEVEL TECHNOLOGY PLAN

ET 102

File Name: P:\2007\20070662\1Drawings\Sheet\62ET-102.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss

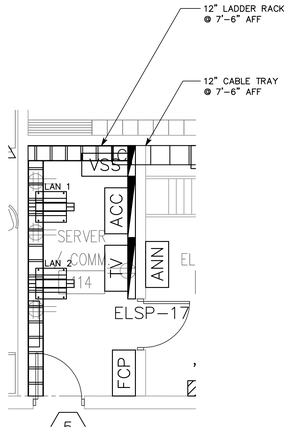
CARD ACCESS DOOR TYPE SCHEDULE

DOOR TYPE #	SYMBOL	DESCRIPTION	PROTECTED SIDE ELEVATION	UNPROTECTED SIDE ELEVATION	LOCK TYPE(S)	INCLUDES:
TYPE 1:		SINGLE DOOR, 1 CARD READER, (FREE EGRESS)			ELECTRIC LOCKSET	* CARD READER * REX IN DOOR HDWR * CONTACT INDICATOR * LOCK PWR AND LOCK BY DOOR HDWR
TYPE 2:		1 CARD READER, DOUBLE DOOR WITH ONE LEAF FIXED. FREE EGRESS THROUGH OTHER LEAF.			ELECTRIC LATCH RETRACTION	* CARD READER * REX IN EXIT HDWR * CONTACT INDICATORS * LOCK PWR AND LOCKS BY DOOR HDWR * SWITCHED EXIT HARDWARE (EXIT SWITCHES AND PWR TRANSFER HINGES BY DOOR HDWR)
TYPE 3:		OVERHEAD DOOR			OVERHEAD DOOR CONTROLLER	* CARD READER * NO REX REQUIRED * CONTACT INDICATOR * INTERFACE "OPEN" AND "CLOSE" COMMANDS TO DOOR CONTROLLER WITH ALTERNATING CARD USE.



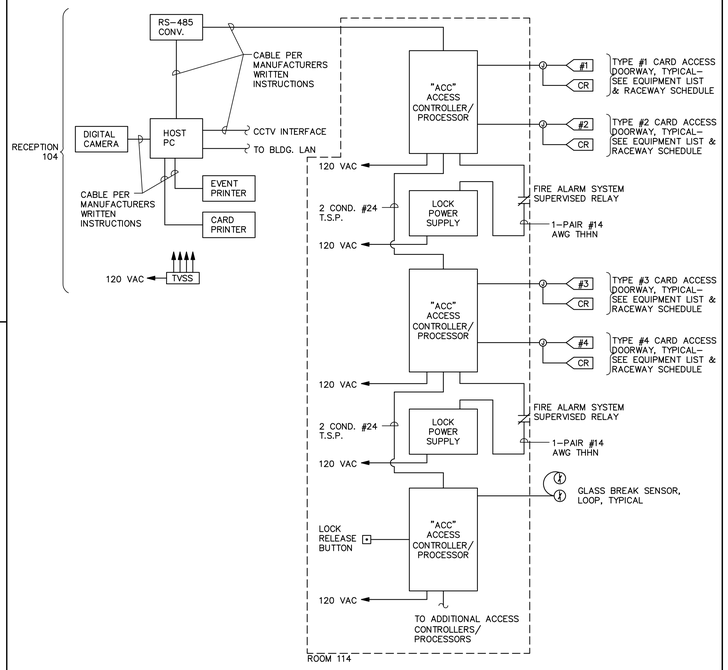
3 VIDEO SURVEILLANCE SYSTEM DIAGRAM

NTS



2 ENLARGED SERVER/ COMM ROOM DETAIL

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



NOTES:

1. ACCESS CONTROL SYSTEM BASED UPON TWO CARD READERS PER ACCESS CONTROLLER/PROCESSOR. ALTERNATE CONFIGURATIONS ACCEPTABLE PROVIDED CONTRACTOR ALLOWS FOR ANY INCREASED WIRING OR EQUIPMENT AND PROVIDES SUBMITTAL DRAWINGS SHOWING NEW CONFIGURATION.

2. ACCESS CONTROLLER "ACC" INDICATED SHALL INCLUDE ANY ISOLATION MODULES, BUFFER MODULES, EXTERNAL POWER SUPPLIES, INPUT/OUTPUT MODULES, OR FORMAT CONVERTER MODULES (NOT SHOWN) REQUIRED TO SUPPORT CARD READER OR KEYPAD TYPES INDICATED, FOR COMPLETE AND FUNCTIONING CARD READER AND DOOR CONTROL.

3. PROVIDE SEPARATE WIRE PAIRS FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, FROM ACCESS DOOR TO ACCESS CONTROLLER "ACC" PANEL. SINGLE PAIR, FROM ACCESS DOOR TO CONTROLLER PANEL, FOR REQUEST TO EXIT AND DOOR CONTACT INDICATOR, NOT ACCEPTABLE.

4. REQUEST TO EXIT AND DOOR CONTACT INDICATOR CIRCUITS SHALL BE SUPERVISED FOR OPEN CIRCUIT OR SHORT CIRCUIT FAULTS BETWEEN THE DEVICE CONTACTS AND ACCESS CONTROLLER.

1 CARD ACCESS SYSTEM DIAGRAM

NTS

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

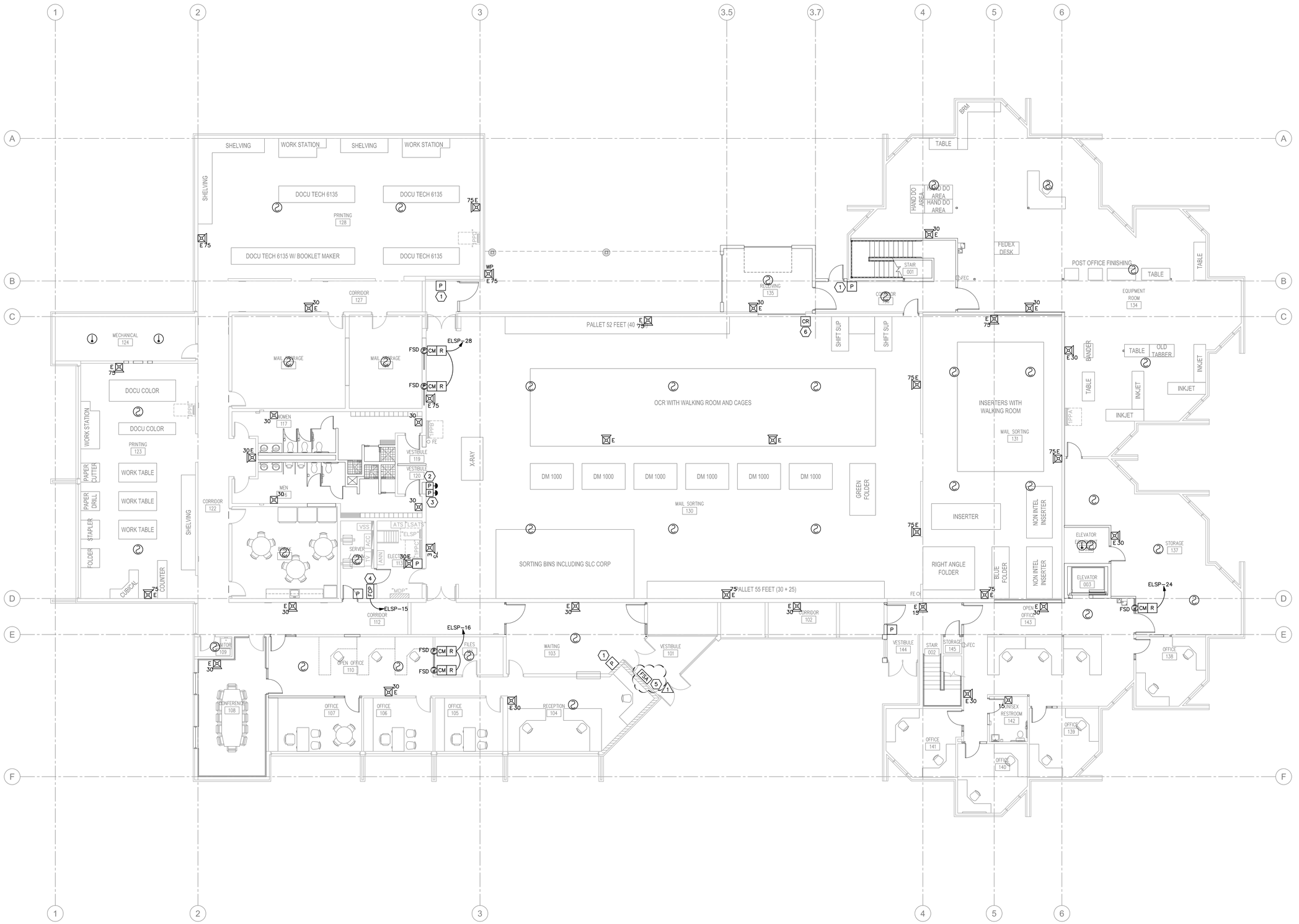
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROMBY RENARD JR. STATE OF UTAH
2008-01-13

TECHNOLOGY DETAILS & DIAGRAMS

ET 601

File Name: P:\2007\20070662\1Drawings\Sheet\62ET-601.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss



1 MAIN LEVEL FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

SHEET KEYNOTES

1. INSTALL PULL STATION ON WIREMOLD BOX WITH 500WM TO ABOVE LAY IN CEILING.
2. MUSHROOM PANIC SWITCH TO ACTIVATE THE "BOMB THREAT" MASS NOTIFICATION OF OCCUPANTS VIA THE FIRE ALARM SPEAKER SYSTEM.
3. MUSHROOM PANIC SWITCH TO ACTIVATE THE "HAZ-MAT" LOCK DOWN & MASS NOTIFICATION OF OCCUPANTS VIA THE FIRE ALARM SPEAKER SYSTEM. ACTIVATION OF THE "HAZ-MAT" SHALL AUTOMATICALLY LOCK ALL DOORS FROM MAIL SORT 130. PROVIDE APPROPRIATE RELAYING AND INTERFACES WITH THE SECURITY CENTER TO CONTROL THESE DOORS.
4. THE FIRE ALARM SYSTEM AS SPECIFIED IS A COMBINATION VOICE EVACUATION SYSTEM & MASS NOTIFICATION SYSTEM. MANUAL INPUTS FROM MUSHROOM PANIC SWITCHES LOCATED IN THE MAIL SORTING ROOM SHALL INITIATE MASS NOTIFICATION OF BOMB THREATS & HAZARDOUS MATERIALS "HAZ-MAT" SUSPICIOUS THRU THE FIRE ALARM EVACUATION SPEAKER SYSTEM.
5. PROVIDE A DETAILED FRAMED FLOOR PLAN AT MAIN ANNUNCIATOR ILLUMINATING LOCATION OF FCP AND MAIN DISCONNECT IN "MDP".
6. PROVIDE CONTROL RELAY TO AUTOMATICALLY CLOSE FIRE SHUTTER WHEN, FIRE ALARM, BOMB THREAT, OR HAZ-MAT ALARM OCCURS.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

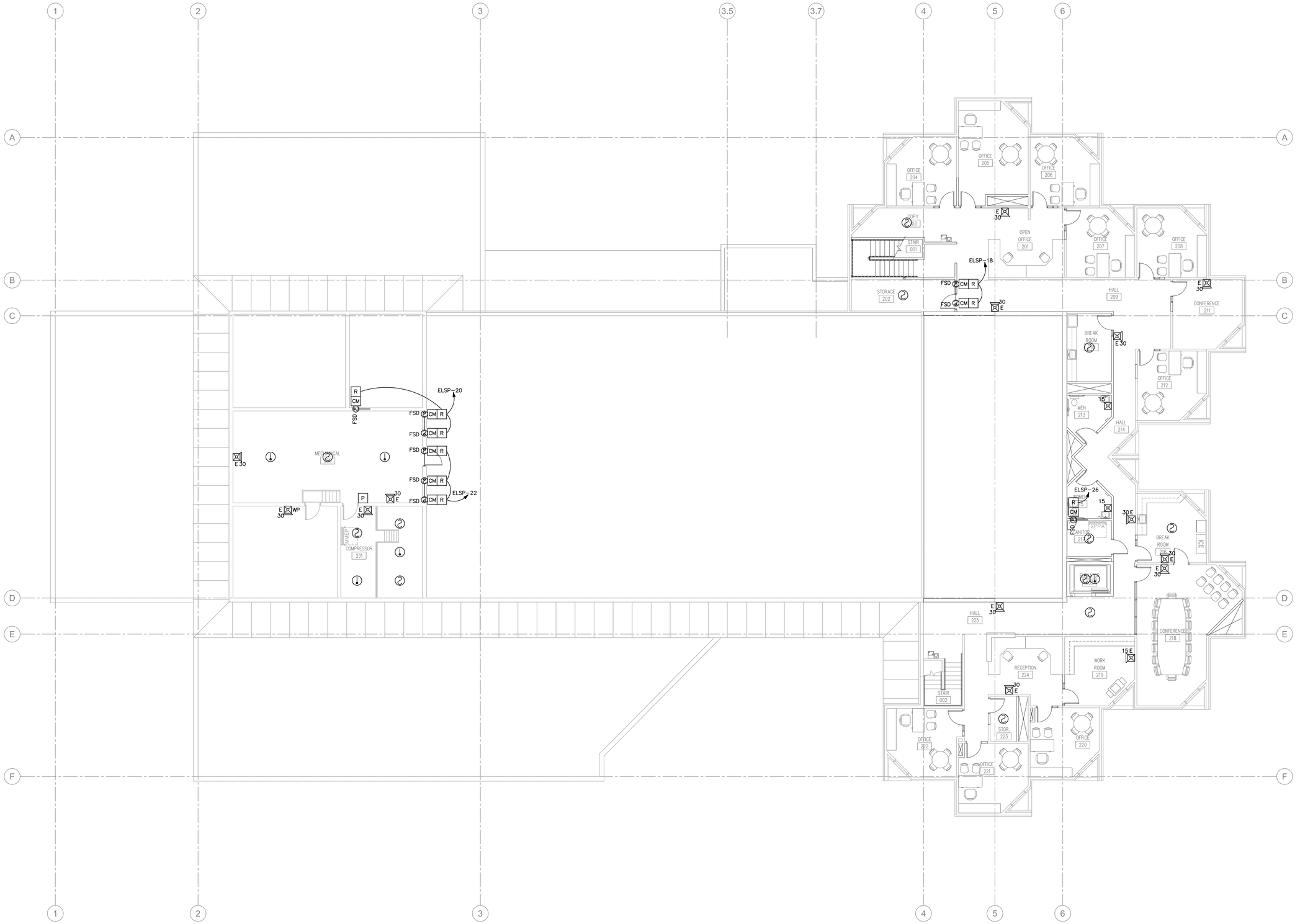
DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH 2008-01-13

MAIN LEVEL FIRE ALARM PLAN

FA 101

File Name: P:\2007\20070662\1Drawings\Sheet\62FA-101.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss



1 UPPER LEVEL FIRE ALARM PLAN

SCALE: 1/8" = 1'-0"

0 4' 8' 16'

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION	PROJECT #.
12 · 18 · 08	08008
01 · 07 · 09	1 DFCM REVIEW COMMENTS

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TRUMAN HENARD JR. STATE OF UTAH 2008-01-13

UPPER LEVEL FIRE ALARM PLAN

FA 102

File Name: P:\2007\20070662\1Drawings\Sheet\62FA-102.dwg Last Plotted: 2009/01/13 @ 10:42 AM By: pss

FIRE ALARM INPUT/OUTPUT MATRIX

		OUTPUT DEVICES												
	ZONE	GENERAL ALARM	DOOR HOLDER/CLOSERS	ELEVATOR RECALL MAIN LEVEL	ELEVATOR RECALL ALTERNATE LEVEL	FAN SHUTDOWN	FIRE DAMPER	MAIN LEVEL ELEVATOR DOORS HOLD OPENS	2ND LEVEL ELEVATOR DOORS HOLD OPENS	ELEVATOR SHUNT TRIP				NOTES
INITIATING DEVICES	1 MAIN LEVEL FLOW	●												
	2 MAIN LEVEL TAMPER													
	3 2ND LEVEL FLOW													
	4 2ND LEVEL TAMPER													
	5 PENTHOUSE FLOW													
	6 PENTHOUSE TAMPER													
	7 MAIN LEVEL INITIATING LOOP													
	8 MAIN LEVEL ELEVATOR DETECTOR													
	9 MAIN LEVEL DUCT DETECTOR													
	10 2ND LEVEL INITIATING LOOP													
	11 2ND LEVEL ELEVATOR DETECTOR													
	12 2ND LEVEL DUCT DETECTOR													
	13 PENTHOUSE LEVEL INITIATING LOOP													
	14 PENTHOUSE LEVEL ELEVATOR DETECTOR													
	15 PENTHOUSE LEVEL DUCT DETECTOR													
	16 FIRE PUMP PUMP RUNNING													
	17 FIRE PUMP LOSS OF POWER													
	18 FIRE PUMP PHASE REVERSAL													
	19 ELEVATOR SPRINKLER HEAT DETECTORS													

WIRING SCHEDULE

FUNCTION	< 500'	< 1000'	1000'–3000'	> 3000'
ADDRESSABLE LOOP	#18 TSP	#18 TSP	#16 TSP	#14 TSP
POWER LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
SPARE LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
STROBE HORNS	#14 THWN	#14 THWN	#12 THWN	#10 THWN
MAGNETIC DOOR HOLDER	#12 THWN	#10 THWN		
SPEAKERS	#16 TSP	#16 TSP	#14 TSP	#14 TSP

NOTIFICATION SCHEDULE

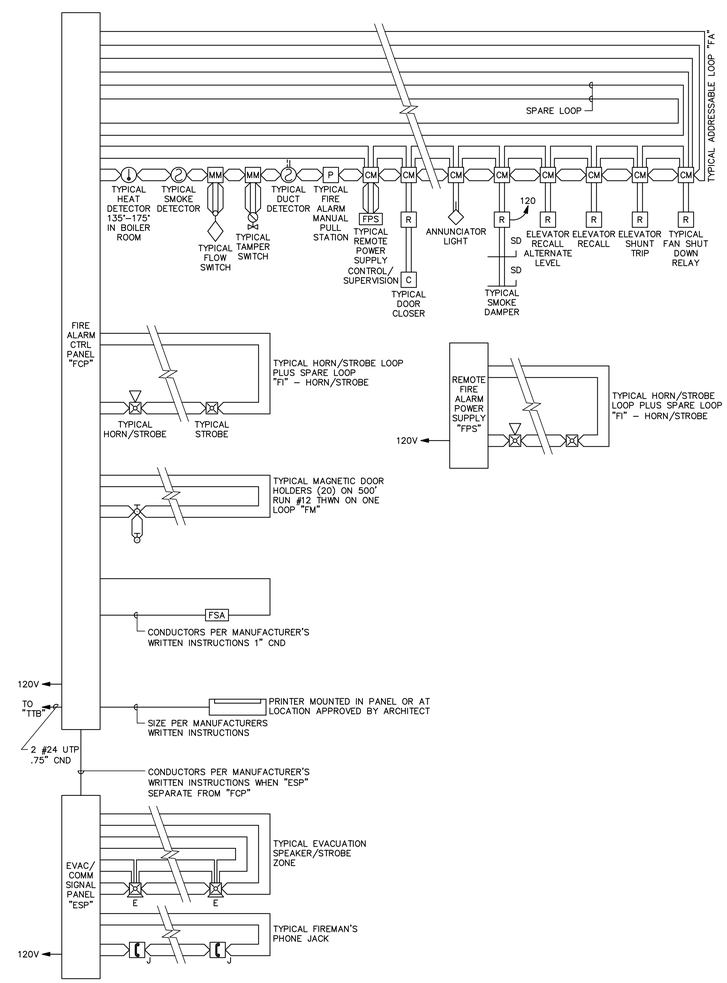
SYMBOL	STROBE SIZE	COVERAGE	AVERAGE CURRENT	MAXIMUM PER CIRCUIT ALONE
15	15 CD	20'x20'	.085A	17
30	30 CD	30'x30'	.135A	11
75	75 CD	40'x40'	.200A	7
110	110 CD	50'x50'	.225A	6

ADDRESSABLE LOOP LEGEND

INITIATING LOOP	DESCRIPTION
FA–1	–

INDICATING LOOP LEGEND

INDICATING LOOP	DESCRIPTION
FI–1	–



1 ADDRESSABLE FIRE ALARM RISER

NO SCALE

GENERAL SHEET NOTES

1. PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
2. PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
3. PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE), POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.
4. FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
5. HEAT DETECTORS WHEN INSTALLED IN ELEVATOR SHAFTS OR MECHANICAL ROOMS FOR ELEVATOR SHUT DOWN SHALL HAVE HEAT DETECTOR WITH LOWER RESPONSE TIME INDEX THAN SPRINKLER HEAD.
6. PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.
7. BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
8. VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
9. RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
10. PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.
11. PROVIDE DUCT DETECTOR AT EACH FLOOR, PRIOR TO CONNECTION TO A COMMON RETURN AND PRIOR TO RECIRCULATING OR FRESH AIR INLET IN AIR RETURN SYSTEMS OVER 15,000 CFM CAPACITY AND SERVING MORE THAN ONE STORY.
12. PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
13. PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
14. LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
15. PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
16. INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
17. ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
18. HORN/STROBE BASED ON 120 MILLIAMPS, DOOR HOLDERS BASED ON 70 MILLIAMPS.
19. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

CONSTRUCTION DOCUMENTS

SPECTRUM ENGINEERS
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
www.spectrum-engineers.com

STATE MAIL SERVICES

WEST VALLEY, UTAH

JRCA
ARCHITECTS
577 South 200 East
Salt Lake City, Utah 84111
(801) 533-2100 fax: 533-2101 jrcadesign.com

DATE/REVISION		PROJECT #.
12 · 18 · 08		0800B
01 · 07 · 09	1 DFCM REVIEW COMMENTS	

LICENSED PROFESSIONAL ENGINEER No. 6563462-2202 TROY D. KENARY JR. STATE OF UTAH 2008-01-13

FIRE ALARM RISER

FA 601

File Name: P:\2007\20070662\10rawings\Sheet\62FA-601.dwg Last Plotted: 2009/01/13 @ 10:41 AM By: pss