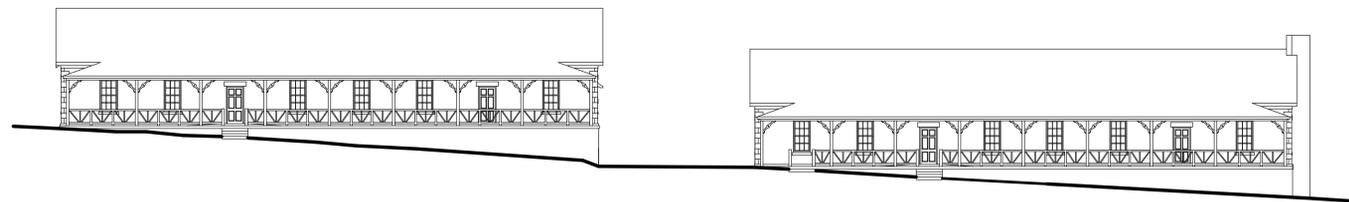
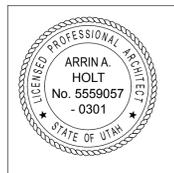


FT. DOUGLAS MUSEUM PHASE 2A HVAC & ELECTRICAL SYSTEM 32 POTTER STREET FT DOUGLAS, UTAH



ARCHITECT'S PROJECT #: B05-027
DFCM PROJECT #: 08249470



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ES100 ELECTRICAL SITE PLAN
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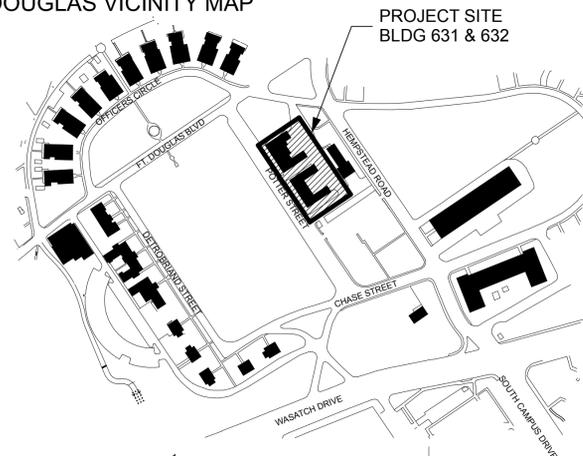
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FT. DOUGLAS MUSEUM FOUNDATION

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FT. DOUGLAS VICINITY MAP



SYMBOLS LEGEND

DETAIL NUMBER C5	DETAIL REFERENCE	1	REFERENCE NOTE	[Concrete symbol]	CONCRETE
SHEET NUMBER AE502		A	WALL TYPE	[Concrete block symbol]	CONCRETE BLOCK
A1	EXTERIOR ELEVATION REFERENCE	A	WINDOW TYPE	[Masonry symbol]	MASONRY
AE202		#	ROOM NOTE	[Steel symbol]	STEEL
A4	SECTION REFERENCE	#	CEILING TYPE	[Batt insulation symbol]	BATT INSULATION
AE301		#	CEILING HEIGHT	[Rigid insulation symbol]	RIGID INSULATION
B2	INTERIOR ELEVATION REFERENCE (SINGLE)	#	DOOR NUMBER	[Finish grade wood symbol]	FINISH GRADE WOOD
AE401		#	DOOR FRAME TYPE	[Plywood symbol]	PLYWOOD
B3	INTERIOR ELEVATION REFERENCE (MULTIPLE)	#	DOOR FRAME TYPE	[Demolition symbol]	DEMOLITION
B4		A	FURNITURE NOTE		
		1	REVISION NOTE		
		+	ELEVATION MARKER		

NOTE: ALL MATERIALS REFERENCED ARE NEW UNLESS NOTED OTHERWISE

PROJECT NO:	B05-027
CAD DWG FILE:	FDMM - 04.28.08.1bk
DRAWN BY:	JRW
CHECKED BY:	AAH
DATE:	08/11/08

GENERAL INFO & SHEET INDEX

GI001

CODE ANALYSIS BUILDING 631

APPLICABLE CODES			
	Year		Year
International Building Code	2003	National Electrical Code	2005
International Mechanical Code	2003	Uniform Code for Building Conservation	2003
International Plumbing Code	2003	ADA Accessibility Guidelines	1994
International Fire Code	2003		
International Energy Conservation Code	2003		

A. Occupancy and Group: **A3** **S1** **B**
 Change in Use: Yes No Mixed Occupancy: Yes No
 Special Use and Occupancy (e.g. High Rise, Covered Mall): _____

B. Seismic Design Category: **E** 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: Nonseparated Uses: _____

F. Sprinklers:
 Required: Provided: Type of Sprinkler System: **NFPA 13**

G. Number of Stories: **1** Building Height: **15'-0"**

H. Actual Area per Floor (square feet): BASEMENT = 4,482 S.F. MAIN = 7,719 S.F.

I. Tabular Area: **6,000** - Type VB, A3

J. Area Modifications:

$$A_a = A_1 + \left[\frac{A_1 I_1}{100} \right] + \left[\frac{A_1 I_2}{100} \right] \quad I_1 = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$$

$$A_a = 6,000 + \left[\frac{6,000 \cdot 75}{100} \right] + \left[\frac{6,000 \cdot 200}{100} \right] \quad I_1 = 100 \left[\frac{390}{450} - 0.25 \right] \frac{60}{30}$$

$$A_a = 16,500 \quad I_1 = 75\%$$

b) Sum of the Ratio Calculations for Mixed Occupancies:
 Actual Area 12,200
 Allowable Area ≤ 1 16,500 ≤ 1

c) Total Allowable Area for:
 1) One Story: 16,500
 2) Two Story: $A_a(2)$ 33,000
 3) Three Story: $A_a(3)$ 49,500

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

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

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0		Floors - Ceiling Floors	1	GA FC 5406
Interior Bearing Walls	0		Roofs - Ceiling Roofs	0	
Exterior Non-Bearing Walls	0		Exterior Doors and Windows	0	
Structural Frame	0		Shaft Enclosures	1	UL-U497
Partitions - Permanent	0		Fire Walls	0	
Fire Barriers	0		Fire Partitions	0	
			Smoke Partitions	0	

L. Design Occupant Load: **400**
 Exit Width Required: **624 in.** Exit Width Provided: **144 in.**

M. Minimum Number of Required Plumbing Facilities:
 a) Water Closets - Required (m) **2** (f) **4** Provided (m) **6** (f) **5**
 b) Lavatories - Required (m) **1** (f) **1** Provided (m) **2** (f) **3**
 c) Bath Tubs or Showers: **0**
 d) Drinking Fountains: **1** Service Sinks: **1**

FOOTNOTES:
 1) In case of conflict with the U.S. Department of Justice Federal Registers Parts through 117 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.

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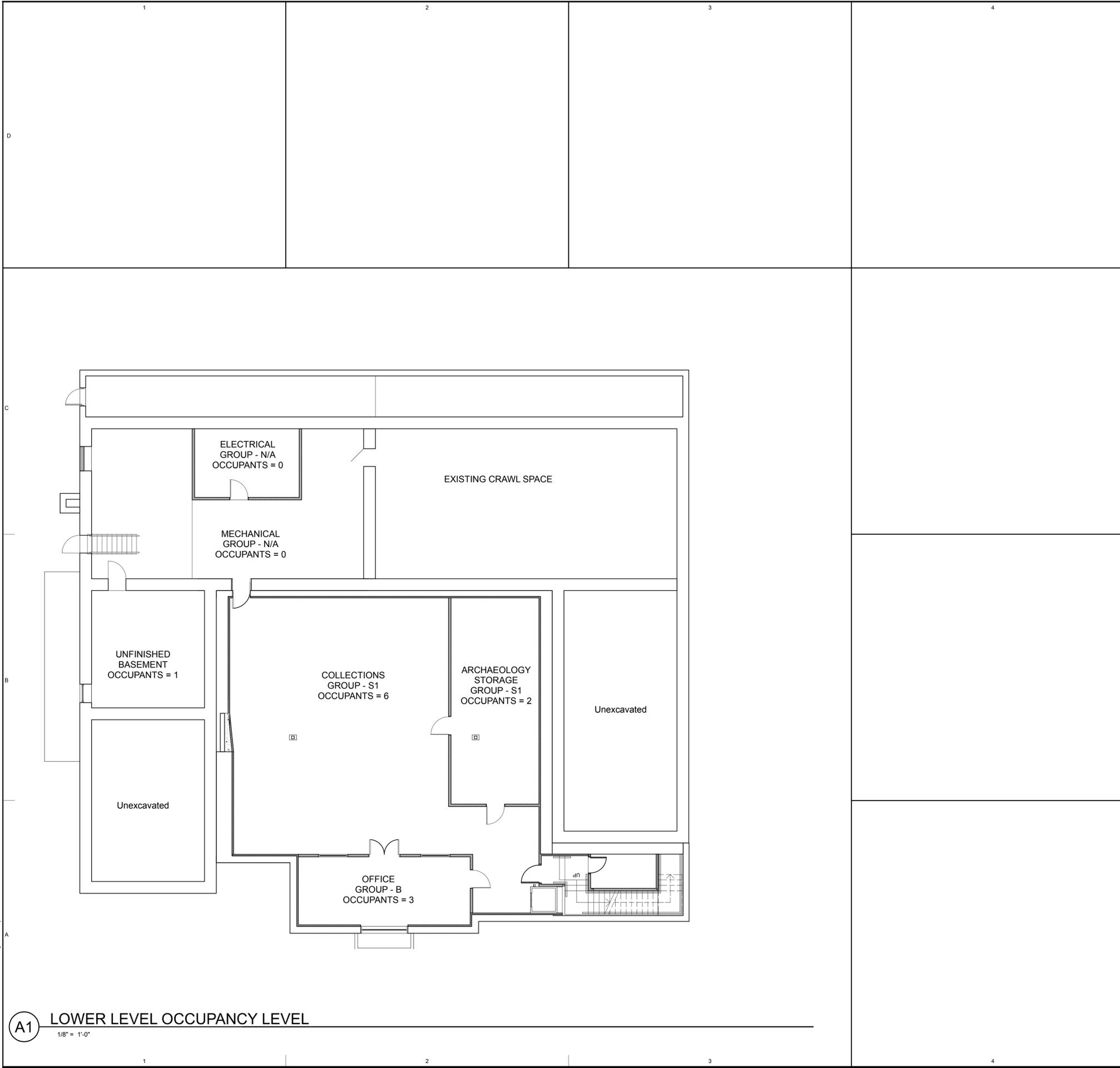
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AB	
AC	
AD	
AE	

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 CHECKED BY: AAH

LOWER LEVEL OCCUPANCY PLAN

G1002



(A1) LOWER LEVEL OCCUPANCY LEVEL
 1/8" = 1'-0"

8/11/2008 P:\B05-027 FT. Douglas Military Museum AED\DrawPhase 2a\FDMM - 04.28.08.lbk

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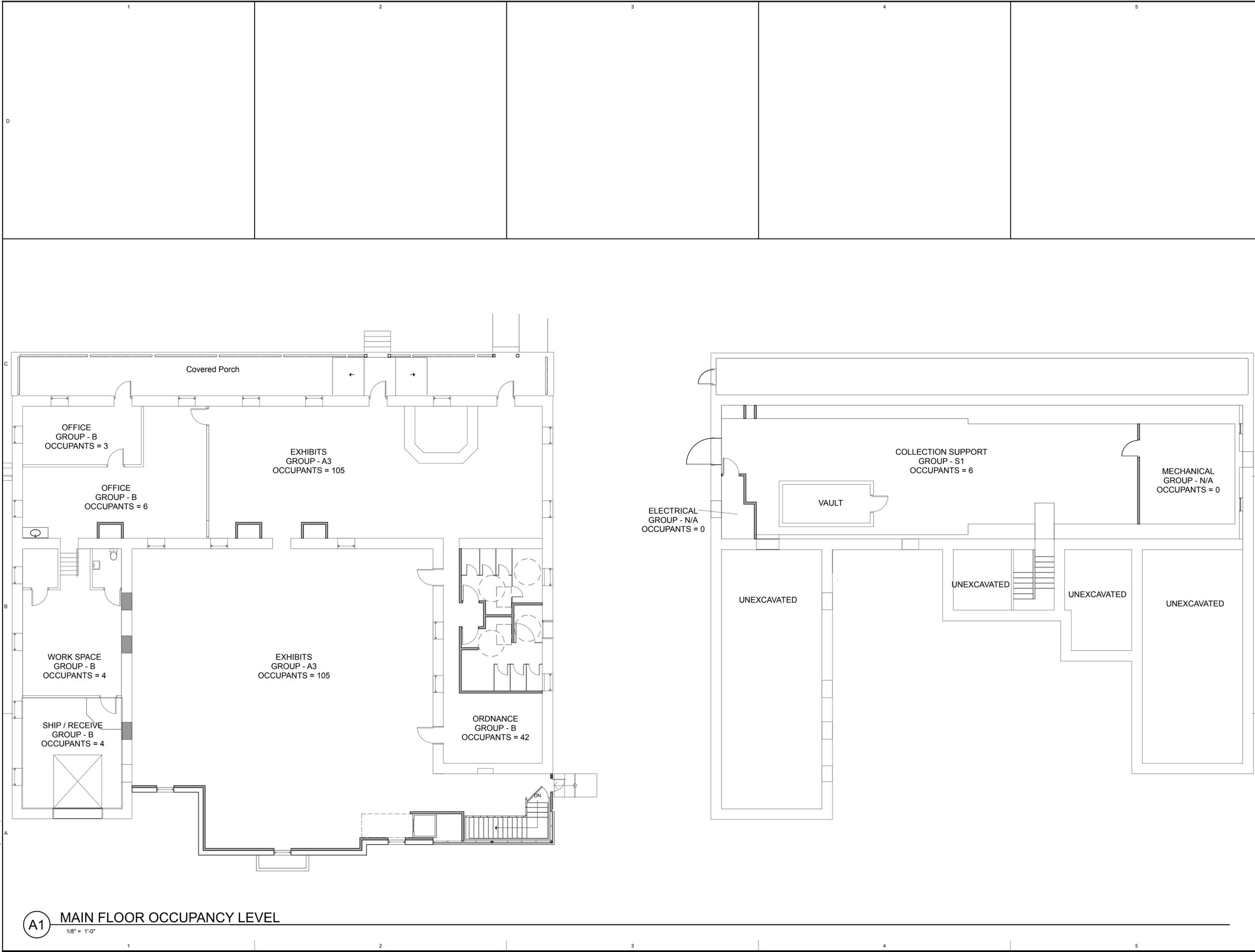
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CHECKED BY: AAH

**MAIN LEVEL
OCCUPANCY PLAN**

G1003



(A1) MAIN FLOOR OCCUPANCY LEVEL
1/8" = 1'-0"

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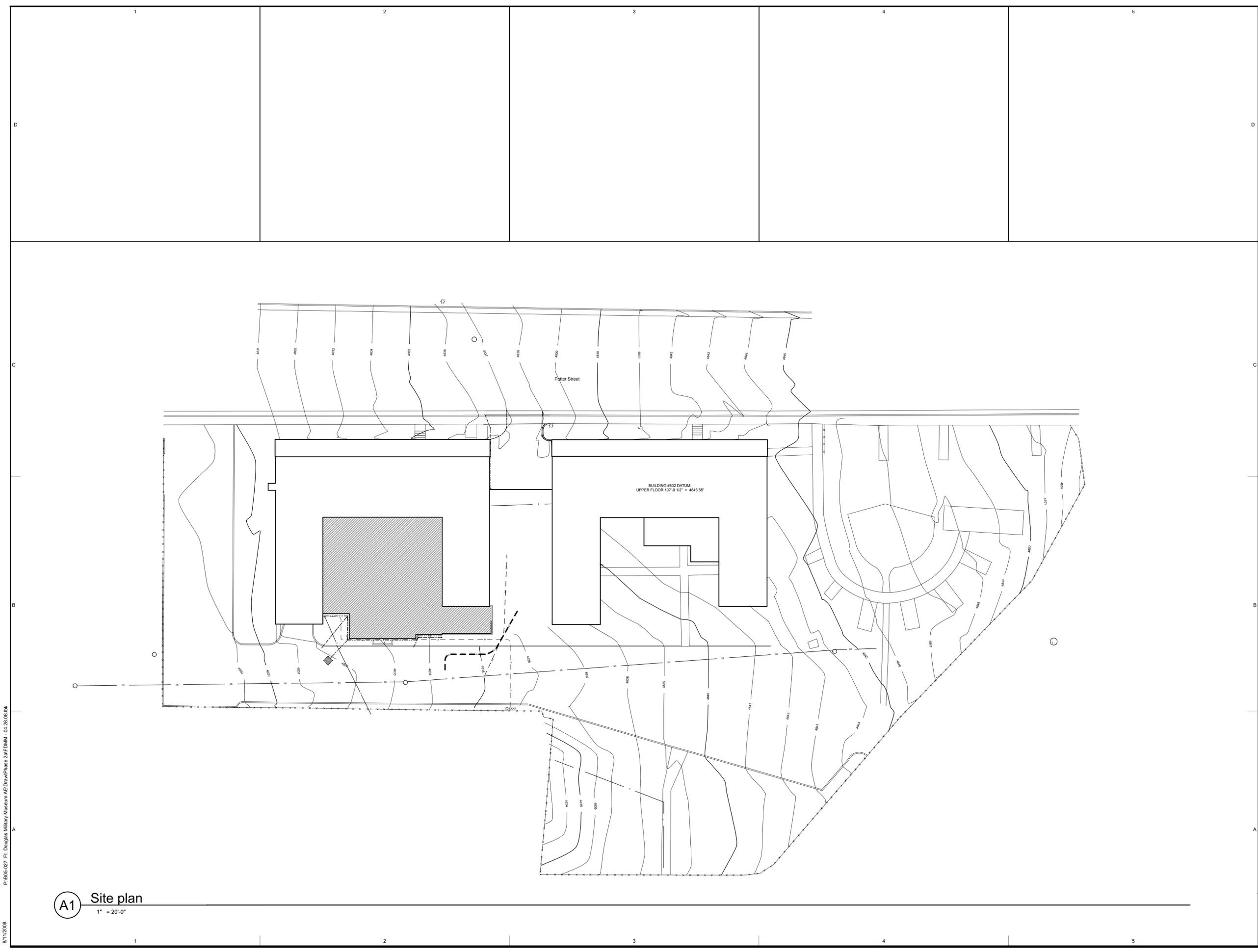
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SITE PLAN

AS101



A1 Site plan
1" = 20'-0"

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(BID ALT.) DEMOLITION NOTES

- 1a. EXISTING WALL TO BE REMOVED (SHOWN DASHED LINE & HATCHED).
- 2a. EXISTING DOOR & FRAME TO BE REMOVED (SHOWN DASHED LINE)
- 3a. CUT OPENING IN FLOOR FOR NEW ADA LIFT.
- 4a. NOT USED
- 5a. MODIFY EXISTING FLOOR TO ACCOMMODATE REMOVABLE HAR SHEATING & JOISTS TO PROVIDED OPENING FOR NEW CRANE-RAIL HOIST.
- 6a. SAW CUT NEW OPENING FOR DOOR

DEMOLITION NOTES

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- 4. EXISTING DOOR & FRAME TO BE REMOVED (SHOWN DASHED LINE)
- 5. REMOVE EXISTING WOOD FLOOR.
- 6. CUT OPENING FOR NEW DOOR IN EXISTING WALL.
- 7. EXISTING BOILER - REMOVE AFTER NEW MECHANICAL SYSTEM IS OPERATIONAL

GENERAL NOTES

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- 4. ALL DRAWINGS AND STRUCTURAL DESIGNS ARE BASED ON ASSUMED CONSTRUCTION CONDITIONS AS EVIDENT BY FIELD OBSERVATIONS. IF THE EXISTING CONDITIONS VARY FROM THE ASSUMED CONDITIONS PRESENT IN THIS SET OF DOCUMENTS, THE CONTRACTOR IS TO CONTACT THE ARCHITECT & STRUCTURAL ENGINEER BEFORE PROCEEDING WITH WORK.
- 5. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL DEMOLITION WORK WITH MECHANICAL AND ELECTRICAL TRADES. REFERENCE MECHANICAL & ELECTRICAL PLANS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
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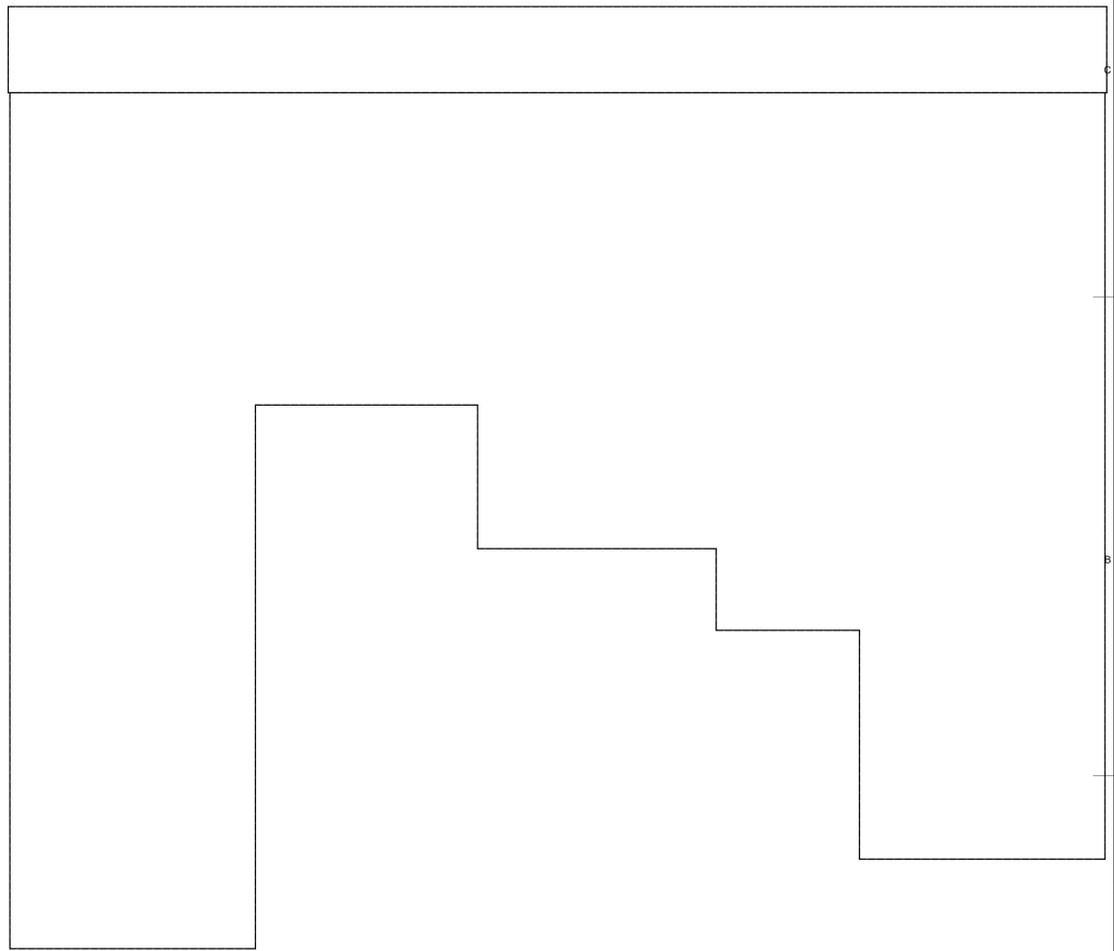
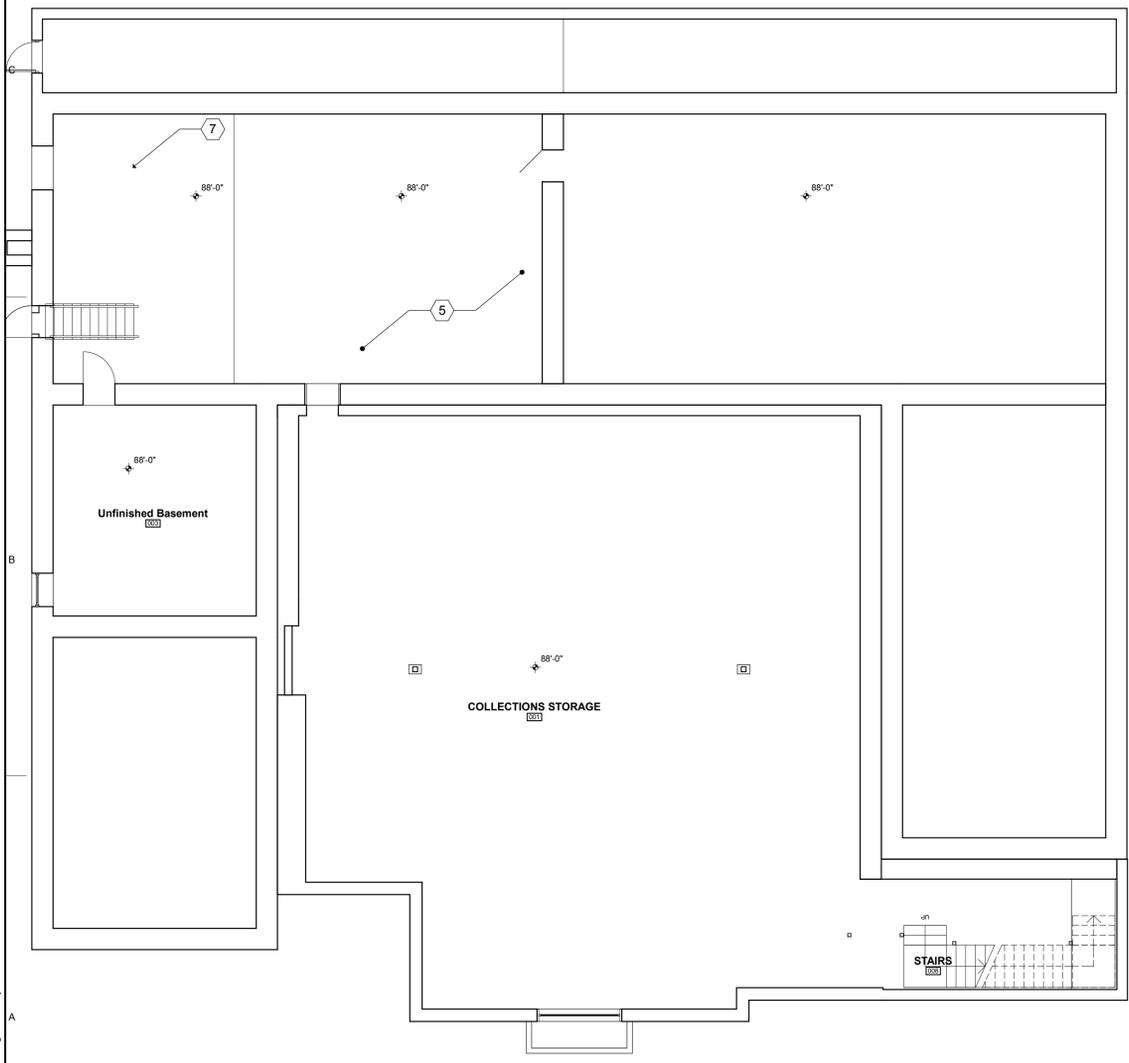
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CHECKED BY:	AAH

**LOWER LEVEL
DEMOLITION PLAN**

AD101

BLDG. 631



(A1) LOWER LEVEL DEMOLITION PLAN
1/8" = 1'-0"

P:\B05-027 FT. Douglas Military Museum AED\DrawPhase 2a\FDMM - 04.28.08.lbk 8/11/2008

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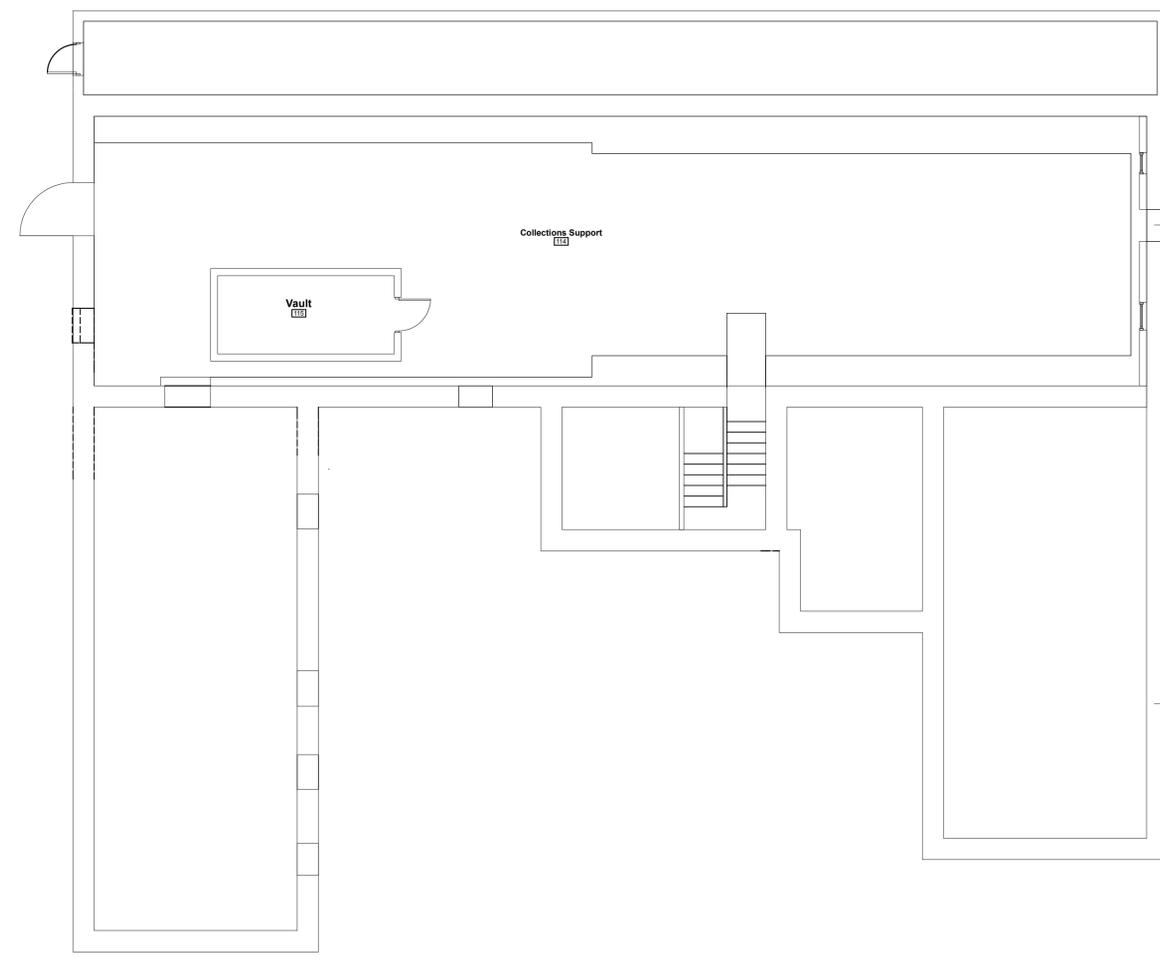
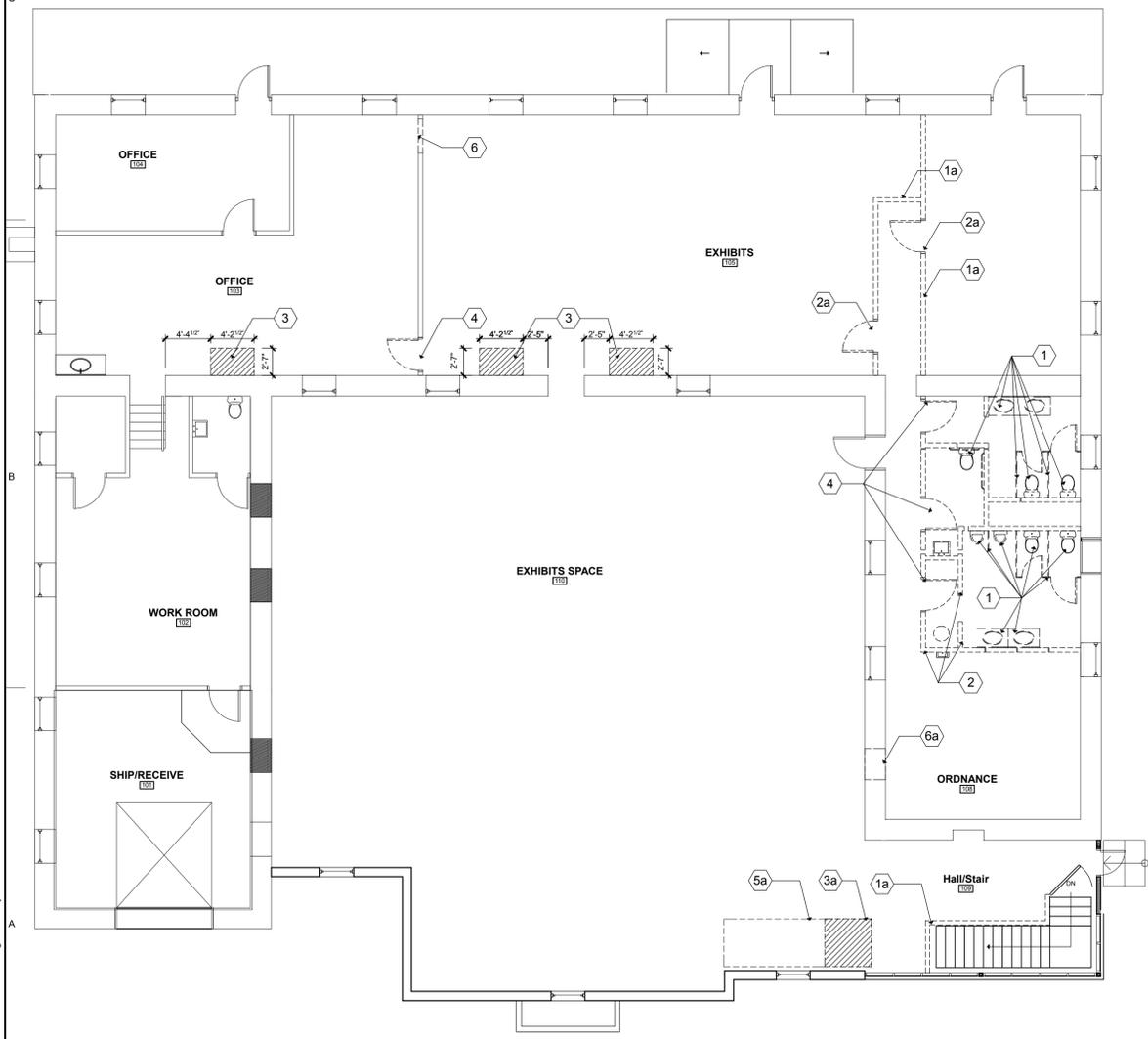
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PROJECT NO: B05-027
CAD DWG FILE: F0MM - 04.28.08.08.bk
DRAWN BY: JRW
CHECKED BY: AAH

**MAIN LEVEL
DEMOLITION PLAN**

AD102



(A1) MAIN LEVEL DEMOLITION PLAN
1/8" = 1'-0"

P:\B05-027 Ft. Douglas Military Museum AED\DrawPhase 2a\F0MM - 04.28.08.08.bk
8/11/2008

DEMO RCP² NOTES

- EXISTING CEILING - REPAIR & REPAINT. SEE FINISH SCHEDULE
- FIX & REPAIR EXISTING LAY-IN CEILING.

DEMO RCP³ LEGEND

-  = REMOVE LAY-IN TILE CEILING. PATCH & REPAIR EXISTING CEILING
-  = REMOVE CEILING & REPLACE WITH NEW GYPSUM BOARD

GENERAL NOTES

- AREAS OF WORK WILL BE FREE OF ALL STORED MATERIAL, CASES, EQUIPMENT, ETC. IF ITEMS REMAIN, CONTACT OWNER FOR REMOVAL.
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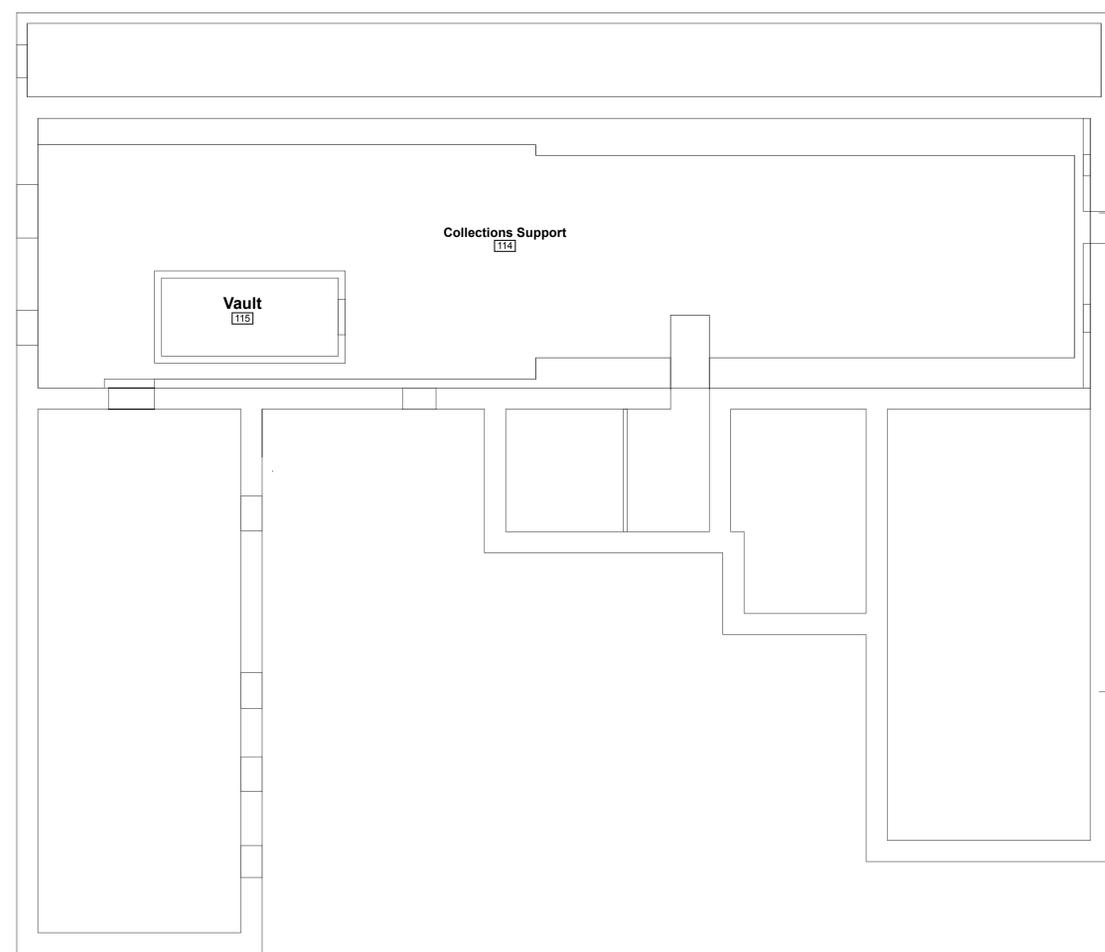
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PROJECT NO: B05-027
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DRAWN BY: JRW
CHECKED BY: AAH

**MAIN LEVEL
REFLECTED CEILING
DEMOLITION PLAN**



AD103



A1 MAIN LEVEL DEMOLITION REFLECTED CEILING PLAN

1/8" = 1'-0"

DEMOLITION NOTES

1. REMOVE & DISPOSE OF FIXTURES
2. EXISTING WALL TO BE REMOVED (SHOWN DASHED LINE & HATCHED).
3. CUT OPENING IN FLOOR FOR MECHANICAL.
4. EXISTING DOOR & FRAME TO BE REMOVED (SHOWN DASHED LINE)
5. REMOVE EXISTING WOOD FLOOR.
6. CUT OPENING FOR NEW DOOR IN EXISTING WALL.
7. EXISTING BOILER - REMOVE AFTER NEW MECHANICAL SYSTEM IS OPERATIONAL

GENERAL NOTES

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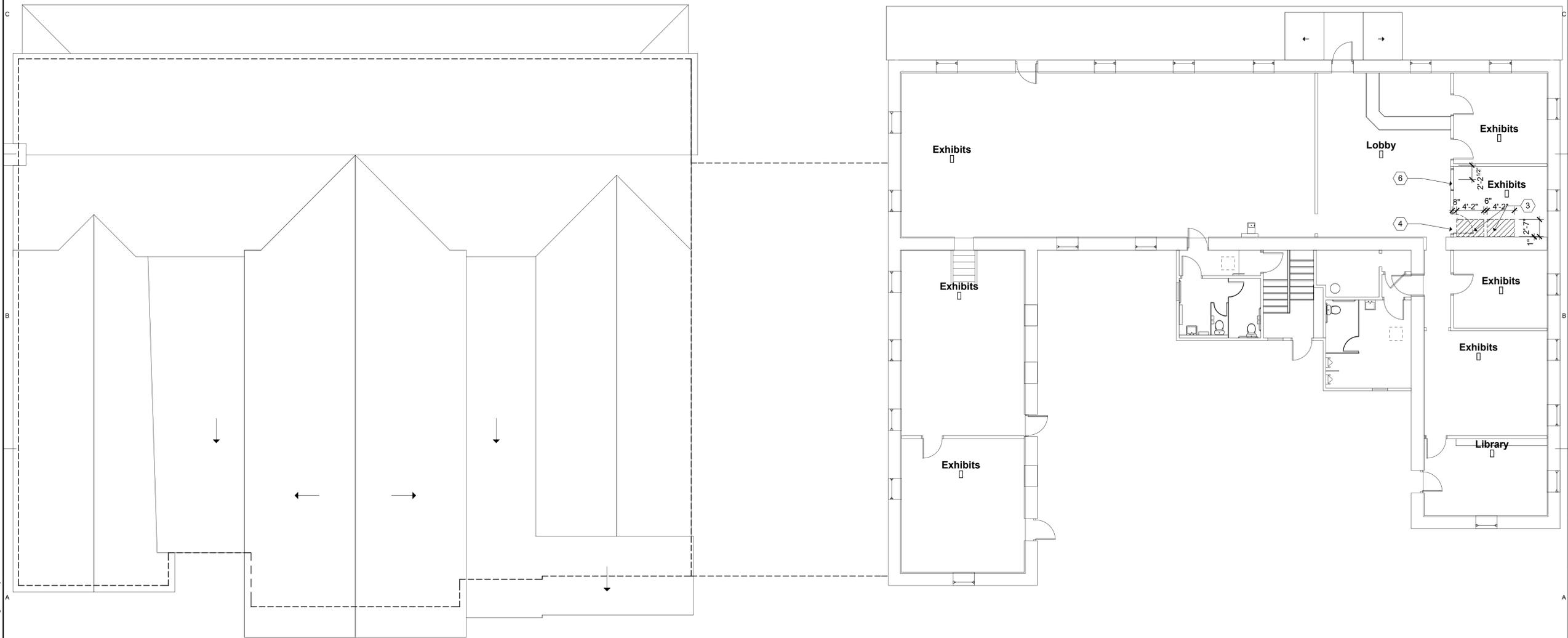
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PROJECT NO: B05-027
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DRAWN BY: JRW
CHECKED BY: AAH

**UPPER LEVEL
DEMOLITION PLAN**

AD104



A1 UPPER LEVEL DEMOLITION PLAN
1/8" = 1'-0"

8/11/2008 P:\B05-027 Ft. Douglas Military Museum AED\DrawPhase 2a\FDM - 04.28.08.08b

ROOF DEMOLITION NOTES

1. REMOVE EVAPORATOR COOLER, CONTROLS & WATER SUPPLY, CAP ROOF CURB.
2. RELIEF FAN TO BE REMOVED, CAP ROOF CURB.
3. FLUES TO REMAIN.
4. PLUMBING VENT TO REMAIN.
5. EXHAUST FAN TO REMAIN.

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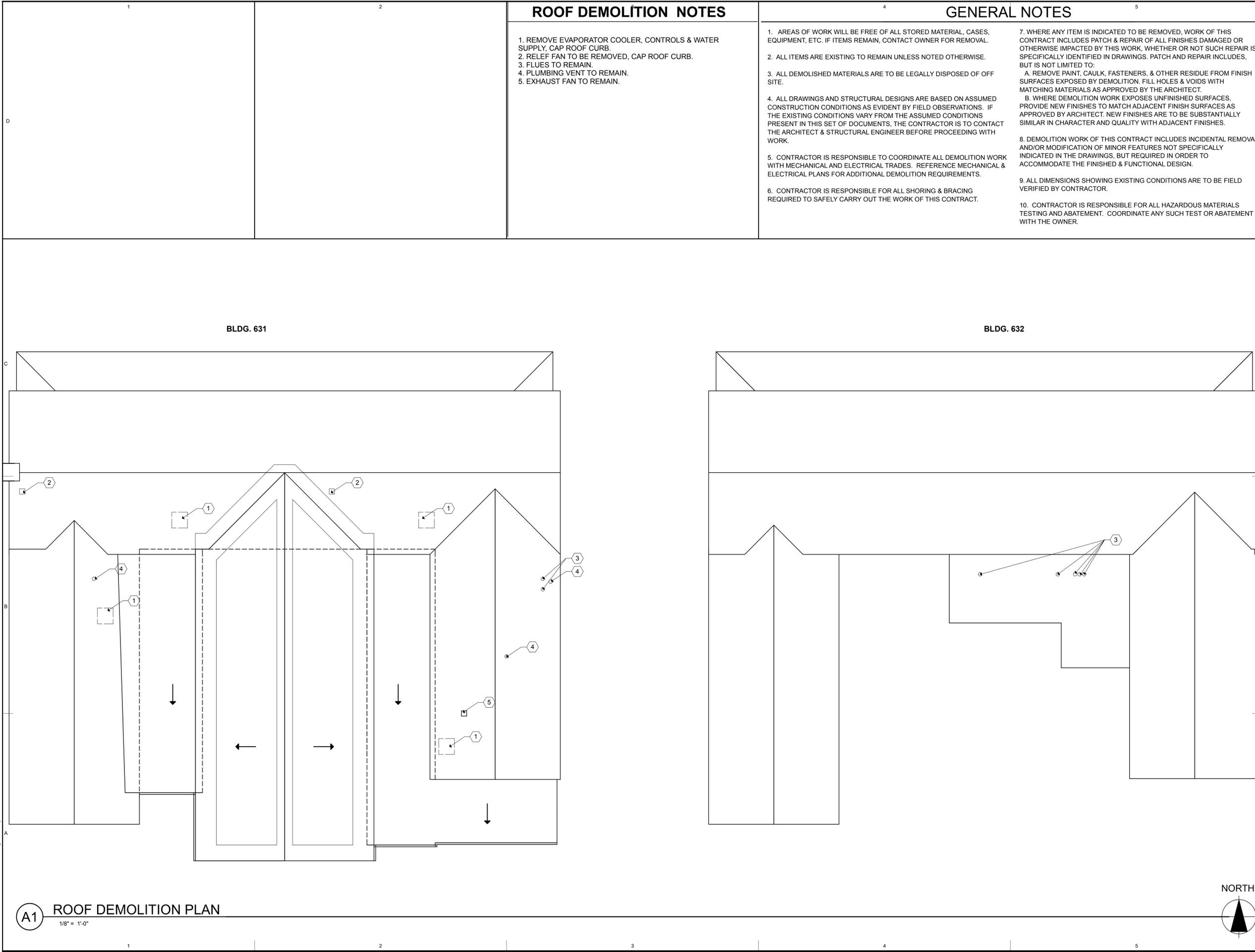
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DRAWN BY: JRW
CHECKED BY: AAH

ROOF DEMOLITION PLAN

AD105



A1 ROOF DEMOLITION PLAN
1/8" = 1'-0"

P:\B05-027 Ft. Douglas Military Museum AED\DrawPhase 2a\FDM - 04.28.08.rsk
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(BID ALT.) REFERENCE NOTES

- 1a. NEW WALL
- 2a. NEW DISPLAY / FURNITURE BY OWNERS
- 3a. NEW ALUMN. DOOR SYSTEM (SEE DOOR SCHEDULE)

REFERENCE NOTES

- 1. NEW WALL
- 2. NEW SHAFT
- 3. INFILLED WALL
- 4. NEW HANDRAIL
- 5. NEW LOW EWC
- 6. NEW 6" CONCRETE PAD FOR MECHANICAL UNITS.

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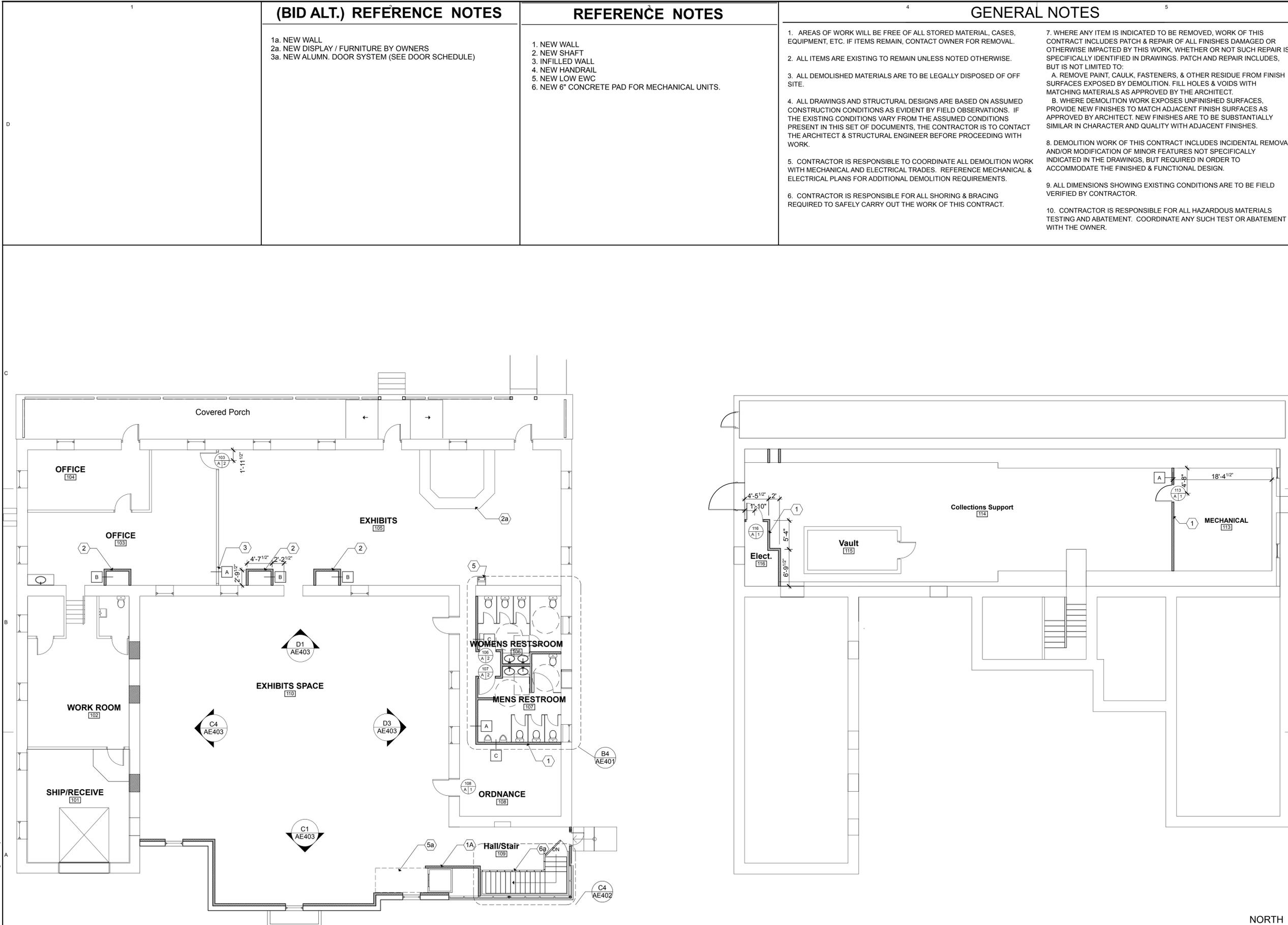
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CHECKED BY: AAH

MAIN LEVEL FLOOR PLAN

AE102



(A1) MAIN LEVEL FLOOR PLAN
1/8" = 1'-0"



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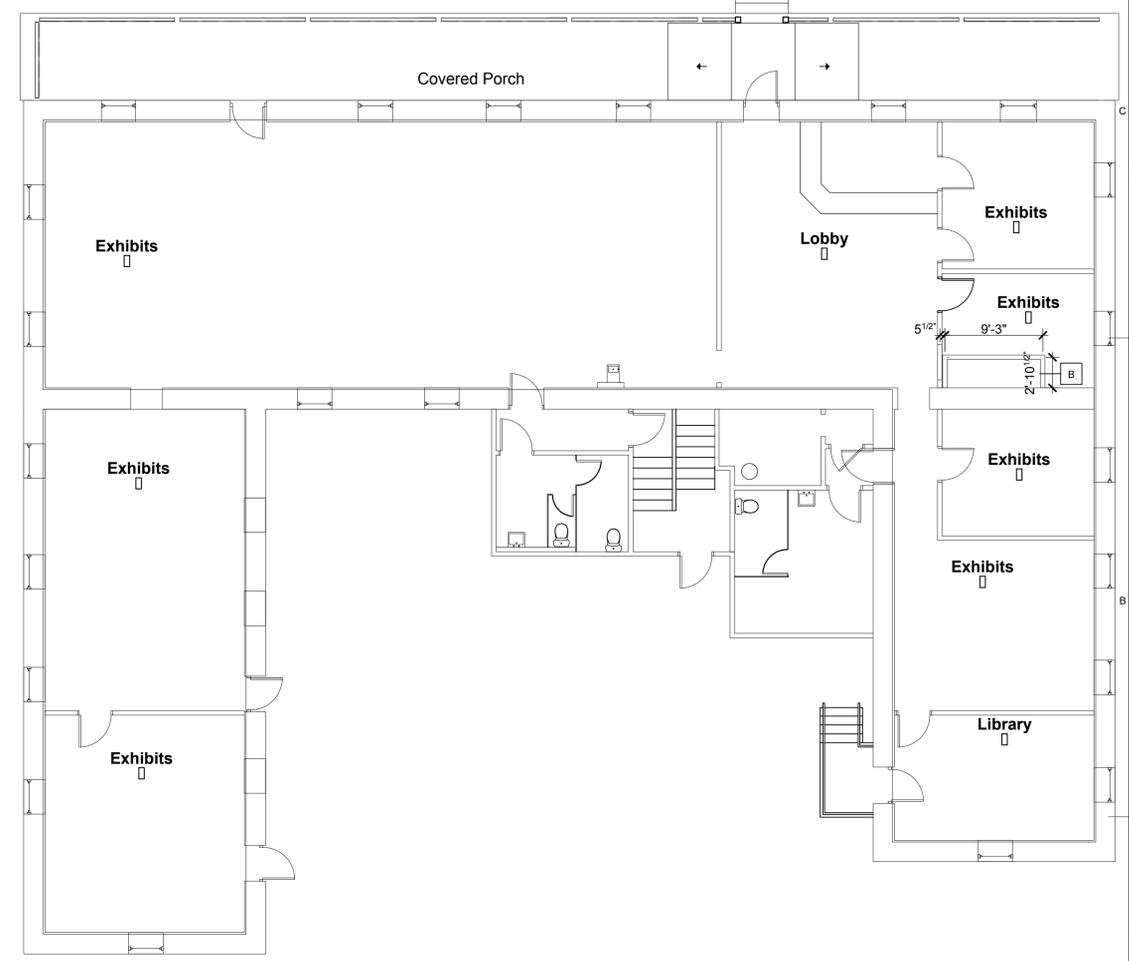
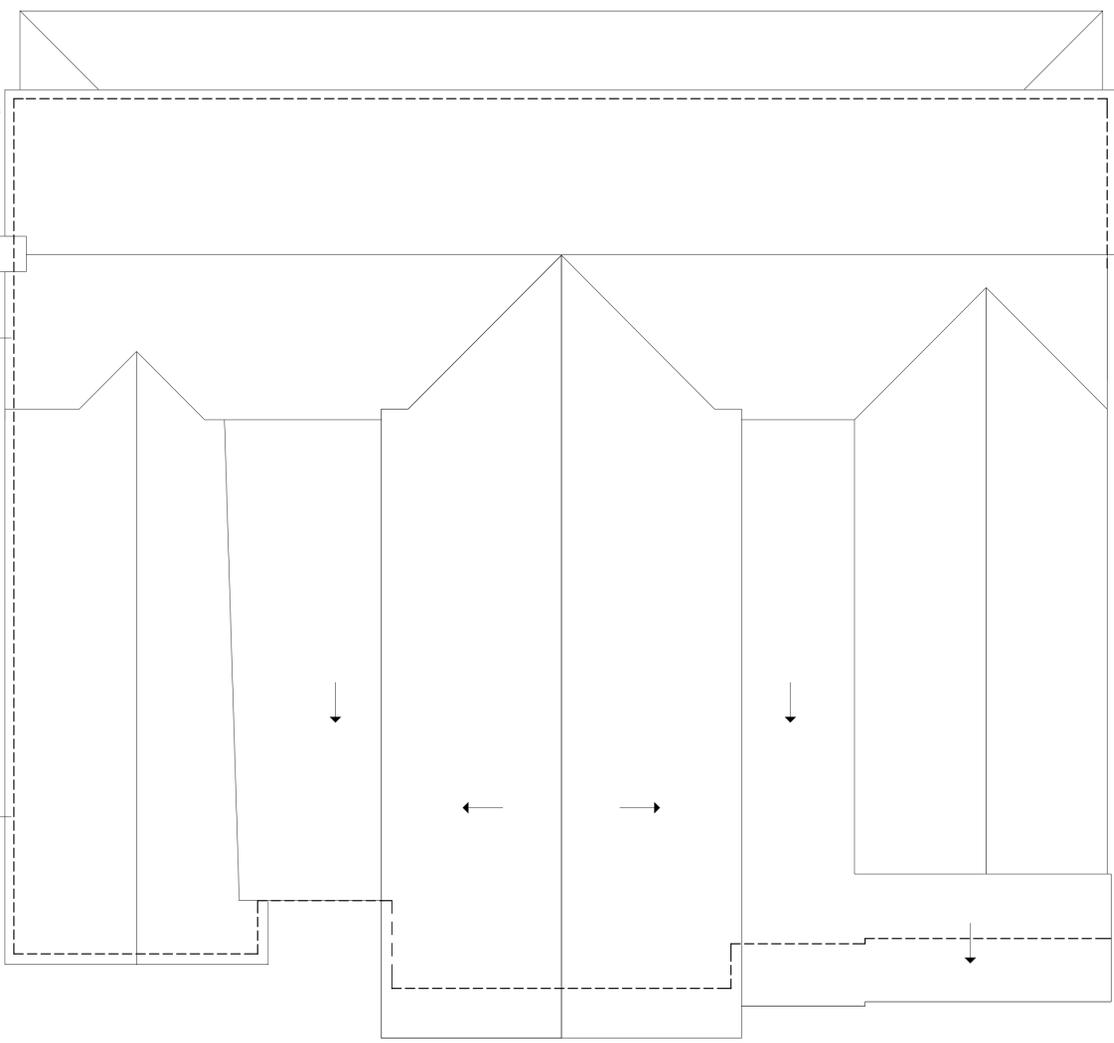
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DRAWN BY: JRW
CHECKED BY: AAH

UPPER LEVEL PLAN

AE103



A1 UPPER LEVEL PLAN

1/8" = 1'-0"

REFERENCE NOTES

1. EXISTING CEILING - REPAIR & REPAINT. SEE FINISH SCHEDULE
2. EXISTING TRUSS (PAINTED).
3. EXISTING SUSPEND CEILING - REPAIR AS NECESSARY
4. NEW CEILING (5/8" GYPSUM BOARD)

RCP LEGEND

-  = NEW SUSPEND GYPSUM BOARD
-  = (2) LAYERS OF 5/8" GYPSUM BOARD
-  = 2' X 2' LAYIN CEILING TILE

NOTE: SEE A3/AE401 FOR SUSPENDED CEILING DETAIL

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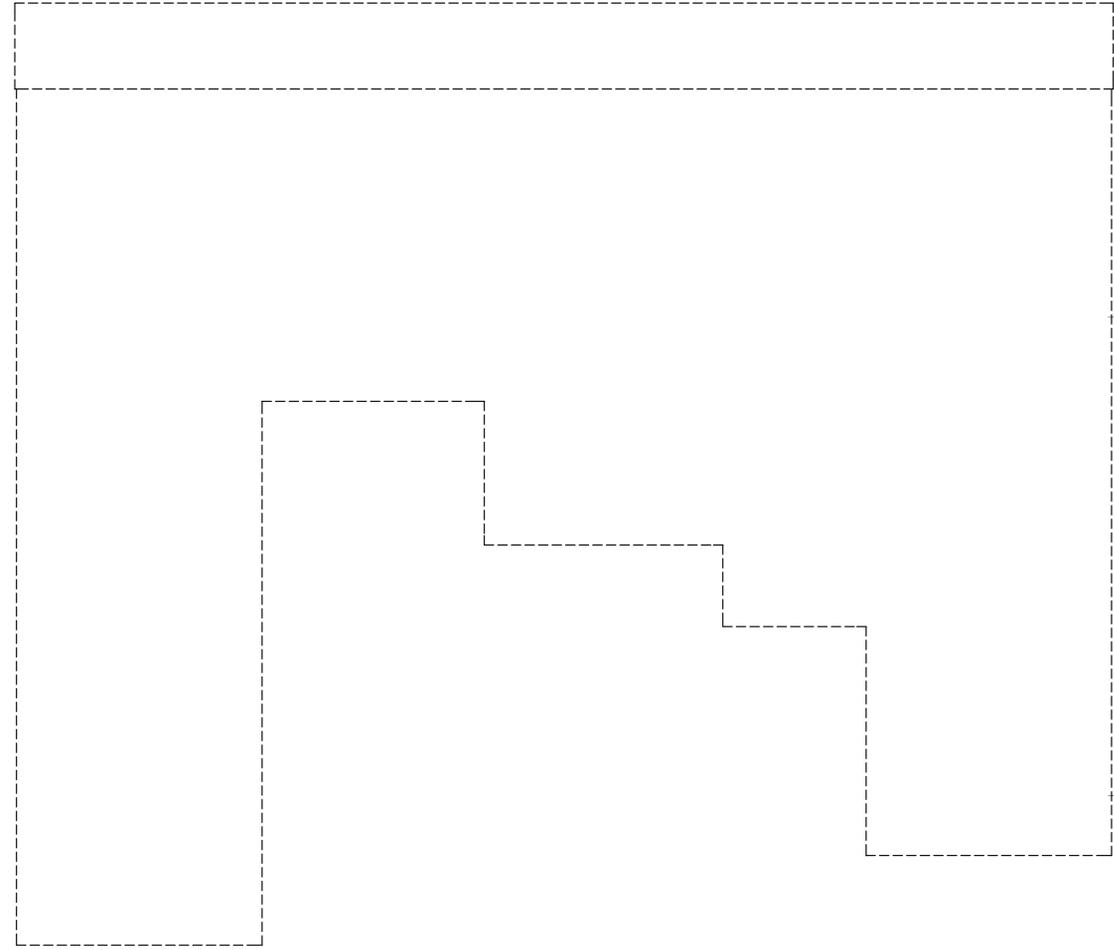
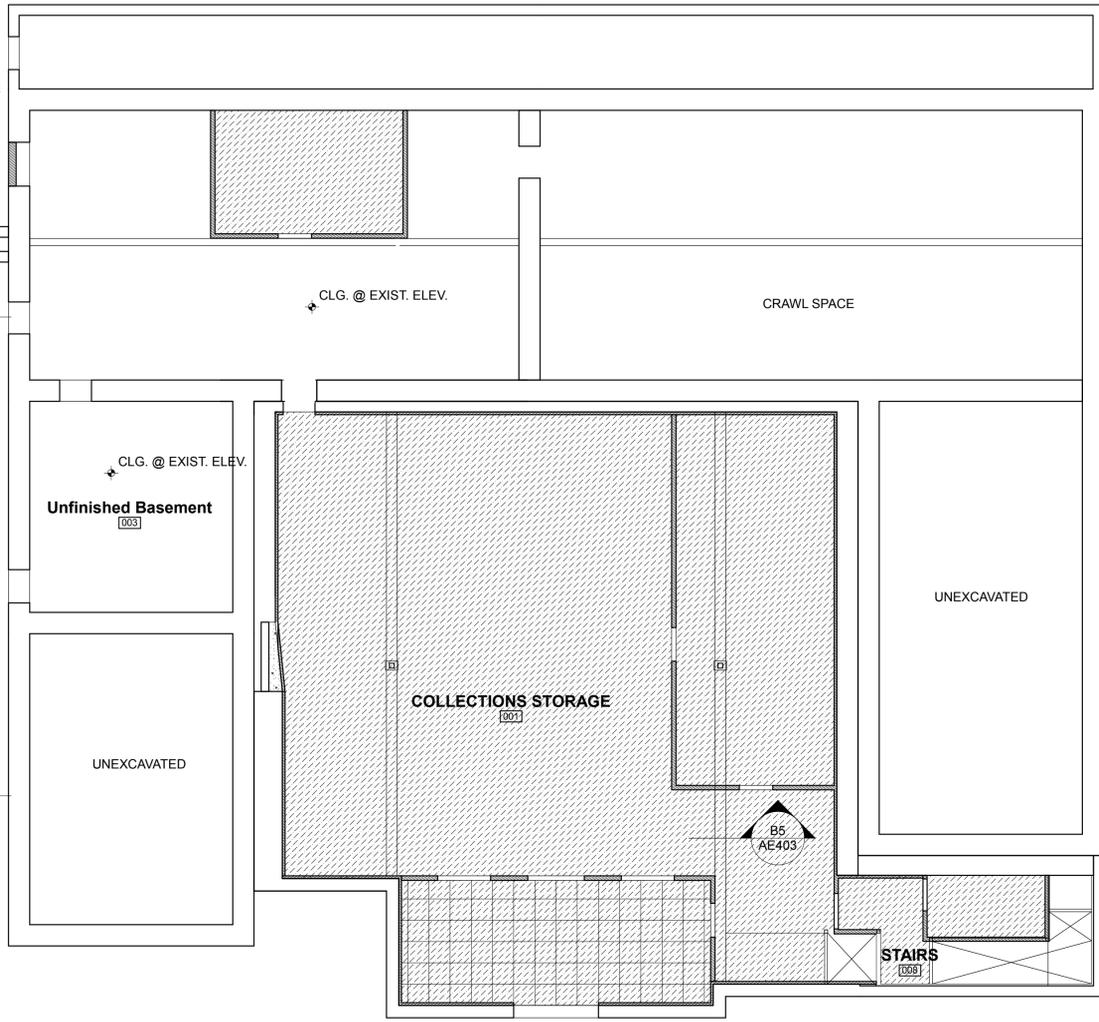
FT. DOUGLAS MUSEUM PHASE 2A
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PROJECT NO: B05-027
CAD DWG FILE: FDM - 04.28.08.1bk
DRAWN BY: JRW
CHECKED BY: AAH

LOWER LEVEL REFLECTED CEILING PLAN

AE110



A1 LOWER LEVEL REFLECTED CEILING PLAN
1/8" = 1'-0"

8/11/2008 P:\B05-027 FT. Douglas Military Museum AEC\DrawPhase 2a\FDM - 04.28.08.1bk

REFERENCE NOTES

1. EXISTING CEILING - REPAIR & REPAINT. SEE FINISH SCHEDULE
2. EXISTING TRUSS (PAINTED).
3. EXISTING SUSPEND CEILING - REPAIR AS NECESSARY
4. NEW CEILING (5/8" GYPSUM BOARD)

RCP LEGEND

-  = NEW SUSPEND GYPSUM BOARD
-  = (2) LAYERS OF 5/8" GYPSUM BOARD
-  = 2' X 2' LAYIN CEILING TILE

NOTE: SEE A3/AE401 FOR SUSPENDED CEILING DETAIL

GENERAL NOTES

1. AREAS OF WORK WILL BE FREE OF ALL STORED MATERIAL, CASES, EQUIPMENT, ETC. IF ITEMS REMAIN, CONTACT OWNER FOR REMOVAL.
2. ALL ITEMS ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
3. ALL DEMOLISHED MATERIALS ARE TO BE LEGALLY DISPOSED OF OFF SITE.
4. ALL DRAWINGS AND STRUCTURAL DESIGNS ARE BASED ON ASSUMED CONSTRUCTION CONDITIONS AS EVIDENT BY FIELD OBSERVATIONS. IF THE EXISTING CONDITIONS VARY FROM THE ASSUMED CONDITIONS PRESENT IN THIS SET OF DOCUMENTS, THE CONTRACTOR IS TO CONTACT THE ARCHITECT & STRUCTURAL ENGINEER BEFORE PROCEEDING WITH WORK.
5. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL DEMOLITION WORK WITH MECHANICAL AND ELECTRICAL TRADES. REFERENCE MECHANICAL & ELECTRICAL PLANS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
6. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING & BRACING REQUIRED TO SAFELY CARRY OUT THE WORK OF THIS CONTRACT.
7. WHERE ANY ITEM IS INDICATED TO BE REMOVED, WORK OF THIS CONTRACT INCLUDES PATCH & REPAIR OF ALL FINISHES DAMAGED OR OTHERWISE IMPACTED BY THIS WORK, WHETHER OR NOT SUCH REPAIR IS SPECIFICALLY IDENTIFIED IN DRAWINGS. PATCH AND REPAIR INCLUDES, BUT IS NOT LIMITED TO:
 - A. REMOVE PAINT, CAULK, FASTENERS, & OTHER RESIDUE FROM FINISH SURFACES EXPOSED BY DEMOLITION. FILL HOLES & VOIDS WITH MATCHING MATERIALS AS APPROVED BY THE ARCHITECT.
 - B. WHERE DEMOLITION WORK EXPOSES UNFINISHED SURFACES, PROVIDE NEW FINISHES TO MATCH ADJACENT FINISH SURFACES AS APPROVED BY ARCHITECT. NEW FINISHES ARE TO BE SUBSTANTIALLY SIMILAR IN CHARACTER AND QUALITY WITH ADJACENT FINISHES.
8. DEMOLITION WORK OF THIS CONTRACT INCLUDES INCIDENTAL REMOVAL AND/OR MODIFICATION OF MINOR FEATURES NOT SPECIFICALLY INDICATED IN THE DRAWINGS, BUT REQUIRED IN ORDER TO ACCOMMODATE THE FINISHED & FUNCTIONAL DESIGN.
9. ALL DIMENSIONS SHOWING EXISTING CONDITIONS ARE TO BE FIELD VERIFIED BY CONTRACTOR.
10. CONTRACTOR IS RESPONSIBLE FOR ALL HAZARDOUS MATERIALS TESTING AND ABATEMENT. COORDINATE ANY SUCH TEST OR ABATEMENT WITH THE OWNER.

COOPER
ROBERTS
SIMONSEN
ASSOCIATES

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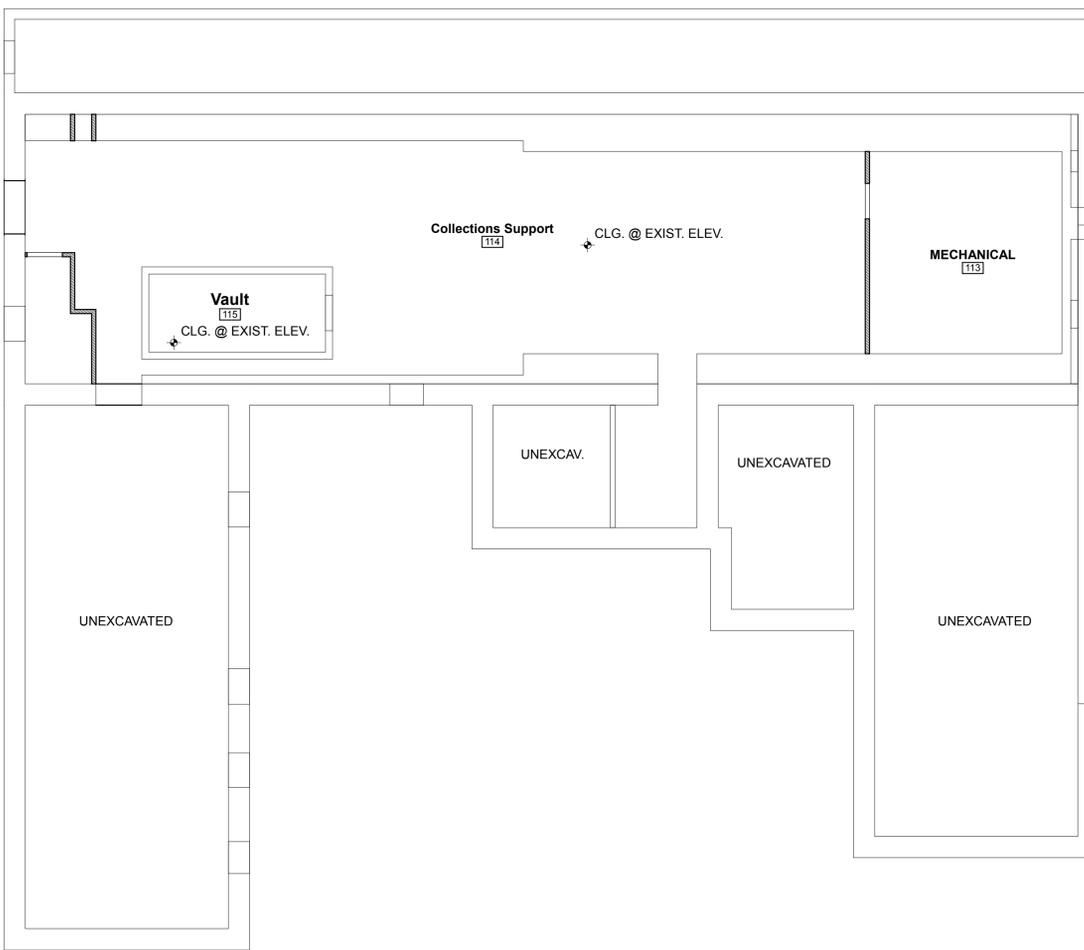
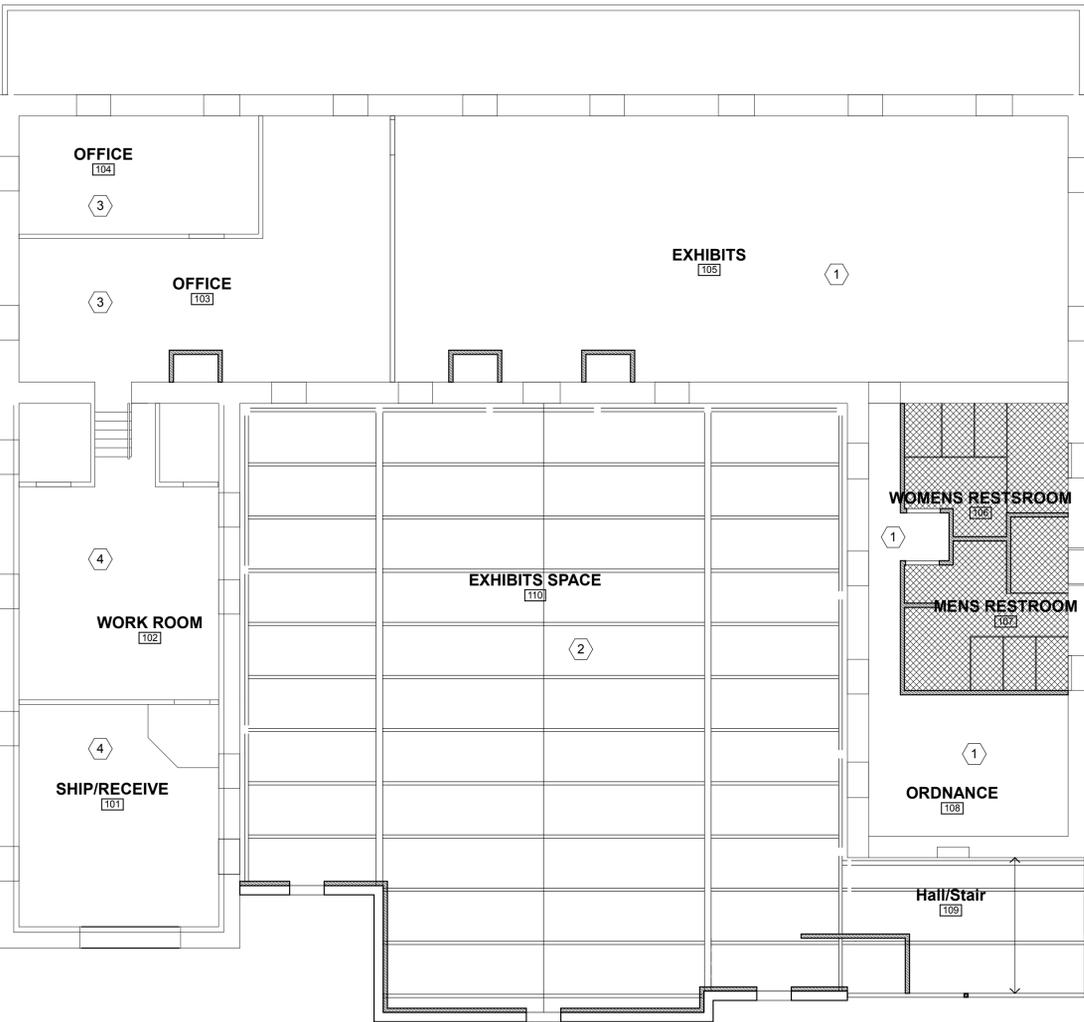
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PROJECT NO: B05-027
CAD DWG FILE: FDM - 04.28.08.lbk
DRAWN BY: JRW
CHECKED BY: AAH

MAIN LEVEL REFLECTED CEILING PLAN

AE111



A1 MAIN LEVEL REFLECTED CEILING PLAN
1/8" = 1'-0"

8/11/2008 P:\B05-027 Ft. Douglas Military Museum AED\DrawPhase 2a\FDM - 04.28.08.lbk

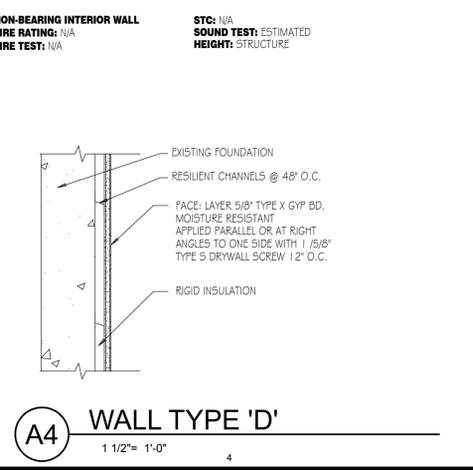
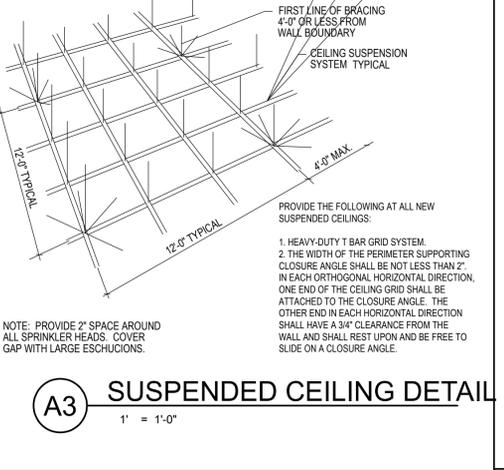
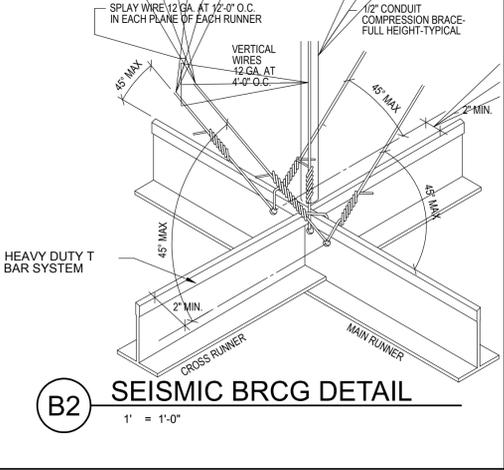
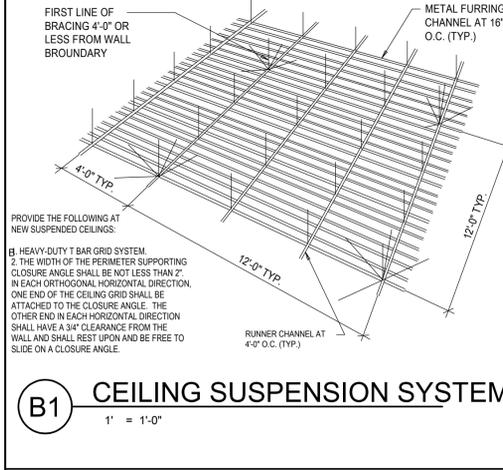
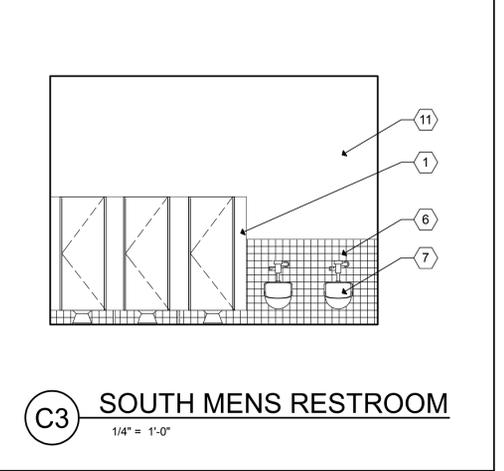
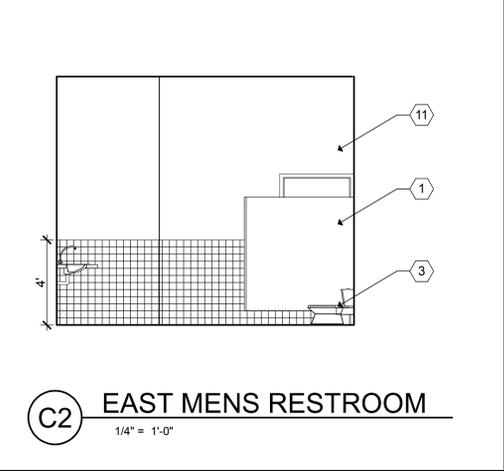
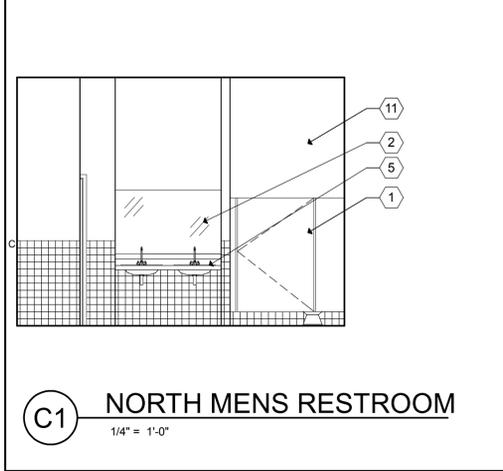
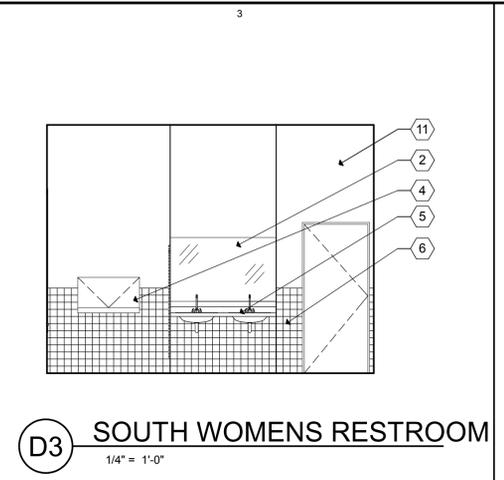
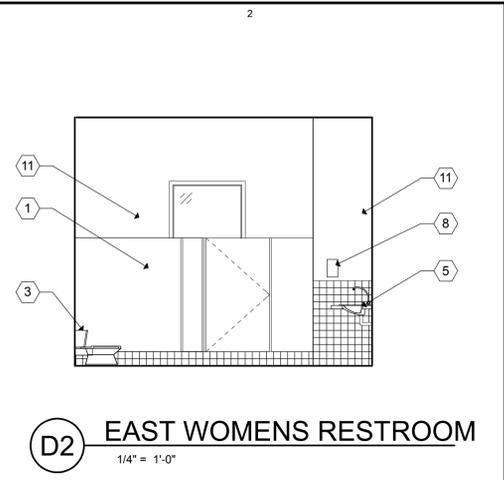
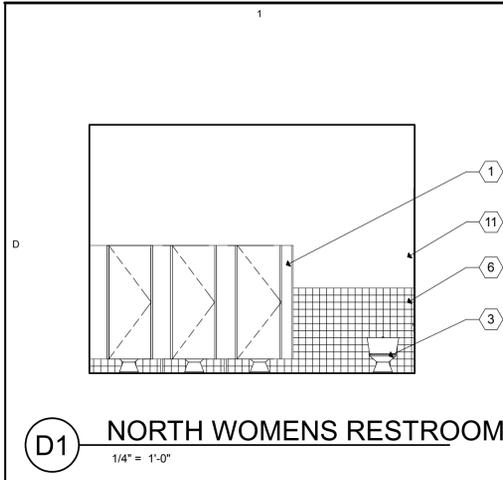
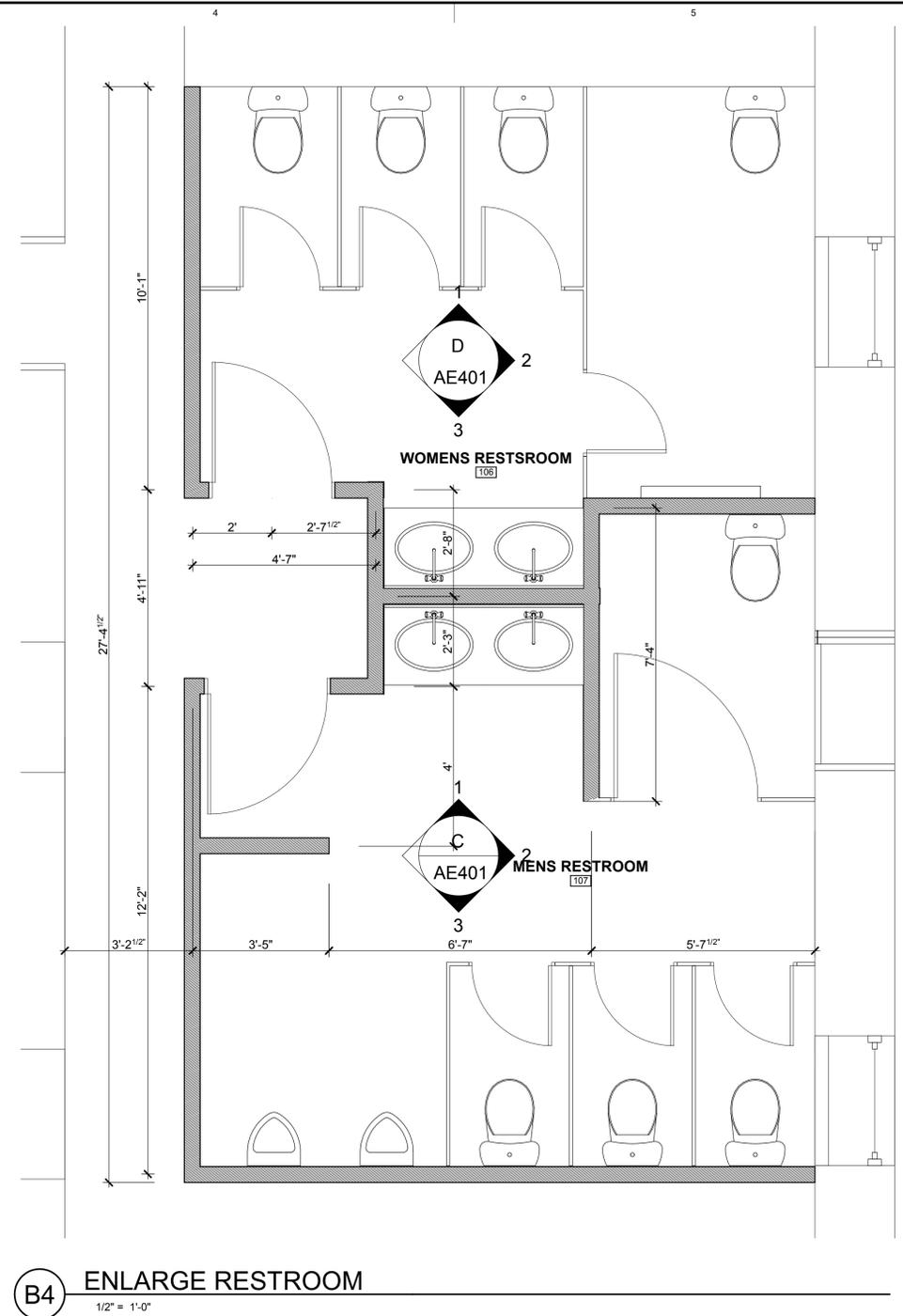


FT. DOUGLAS
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PHASE 2A

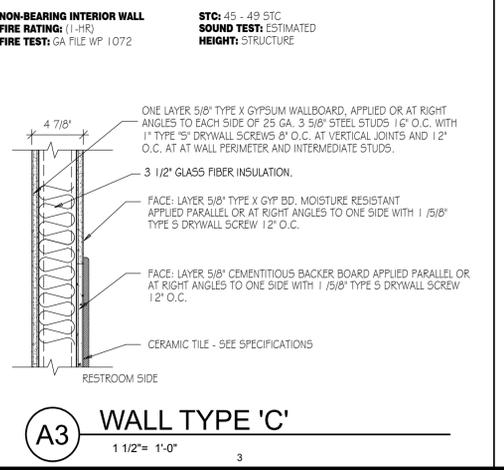
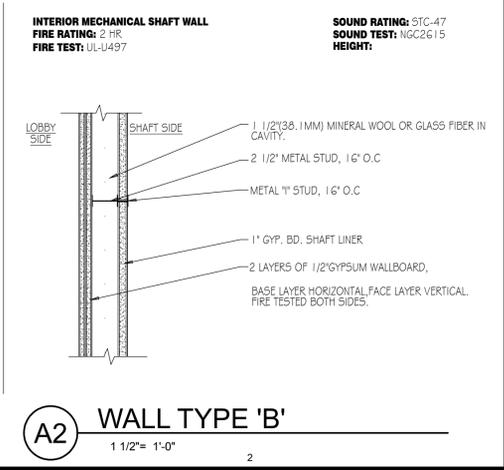
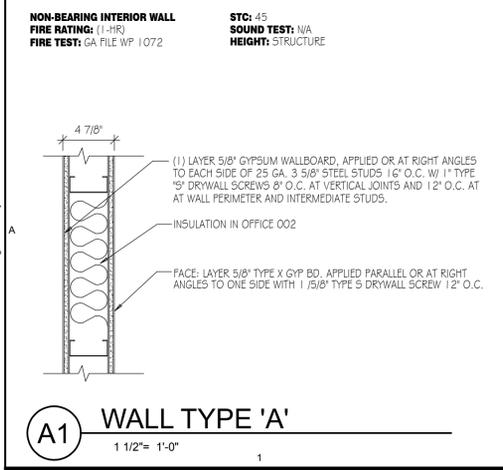
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- REFERENCE NOTES**
- NEW TOILET PARTITION
 - NEW MIRROR
 - NEW TOILET
 - NEW PULL-DOWN BABY CHANGING STATION
 - NEW LAVATORY
 - CERAMIC FIELD TILE
 - NEW URINAL
 - SANITARY NAPKIN DISPENSER
 - HAND SOAP DISPENSER
 - GRAB BAR
 - NEW GYPSUM BOARD PAINTED



PROJECT NO:	B05-027
CAD DWG FILE:	F0MM - 04.28.08.rtk
DRAWN BY:	JRW
CHECKED BY:	AAH

**ENLARGE FLOOR
PLANS & DETAILS**

AE401



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PHASE 2A

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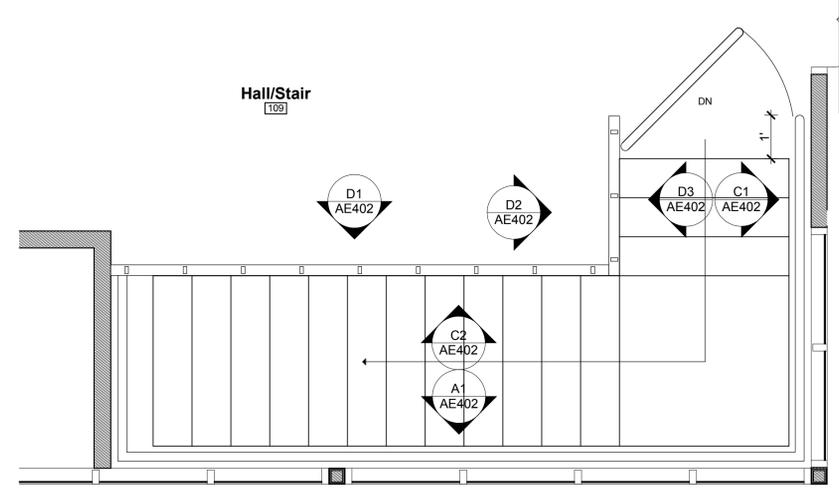
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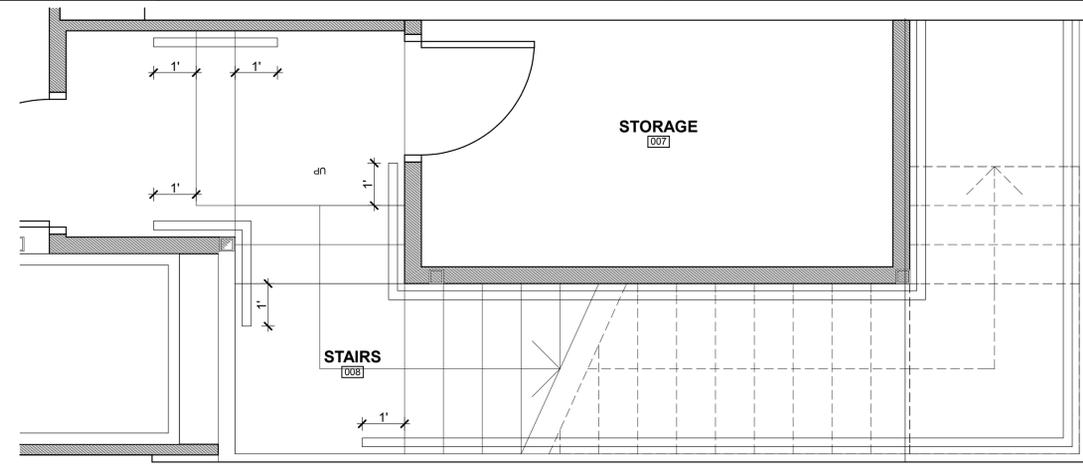
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ENLARGE FLOOR
PLAN & DETAILS

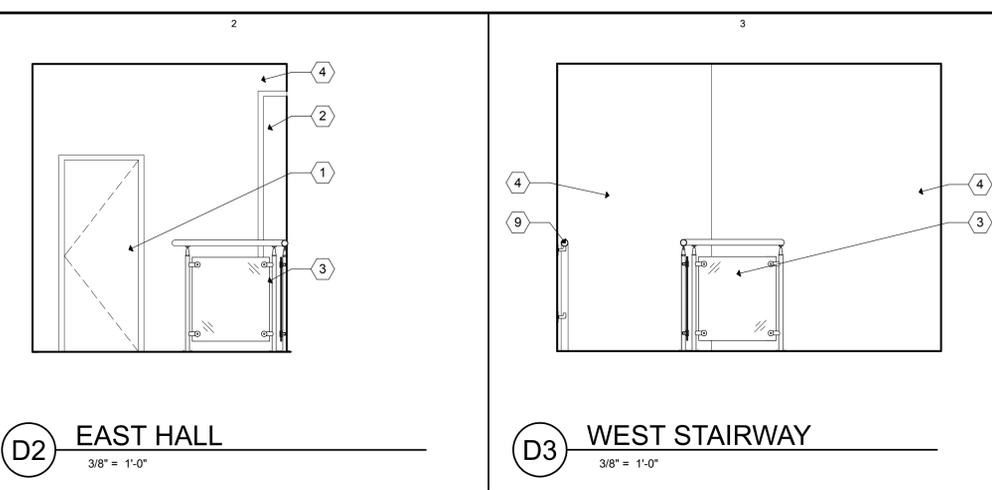
AE402



C4 ENLARGE MAIN LEVEL STAIRS
1/2" = 1'-0"

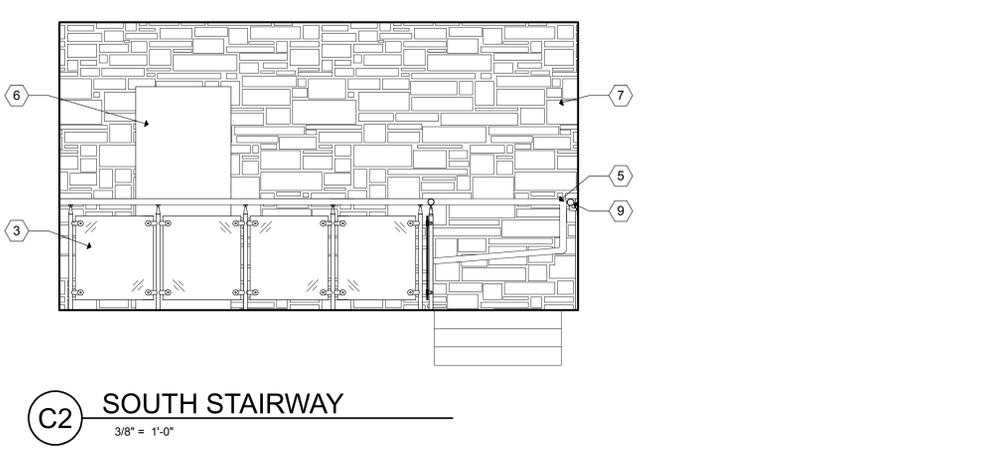


B3 ENLARGE LOWER LEVEL STAIRS
1/2" = 1'-0"

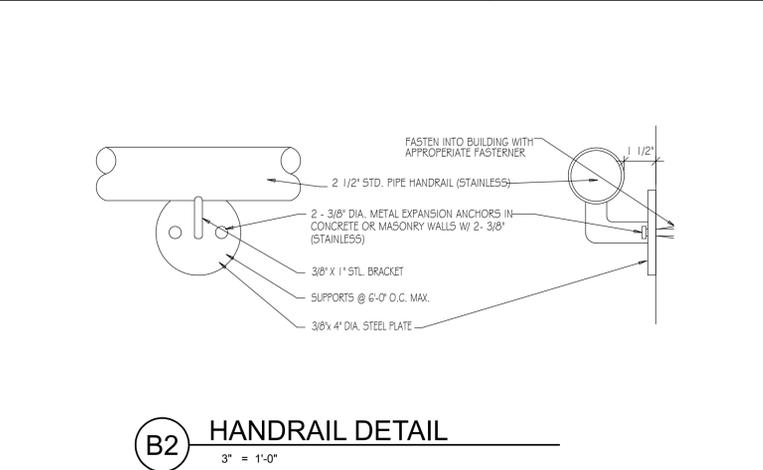


D2 EAST HALL
3/8" = 1'-0"

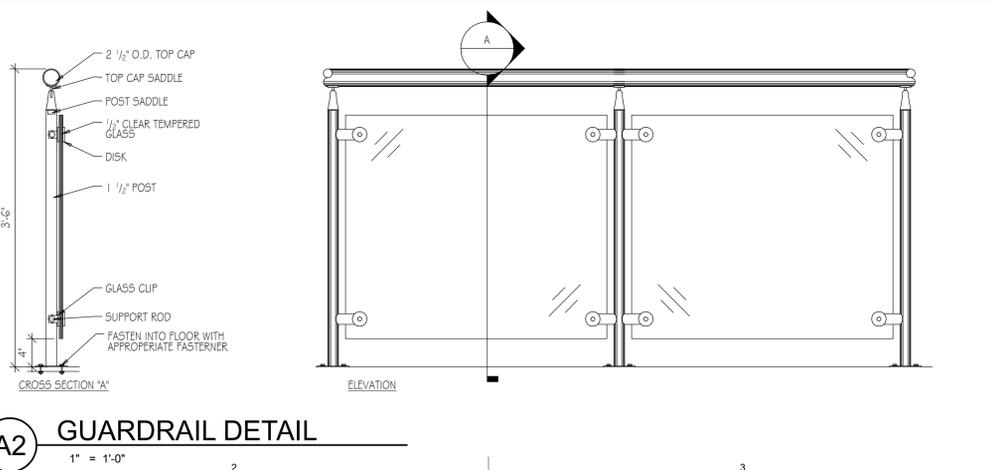
D3 WEST STAIRWAY
3/8" = 1'-0"



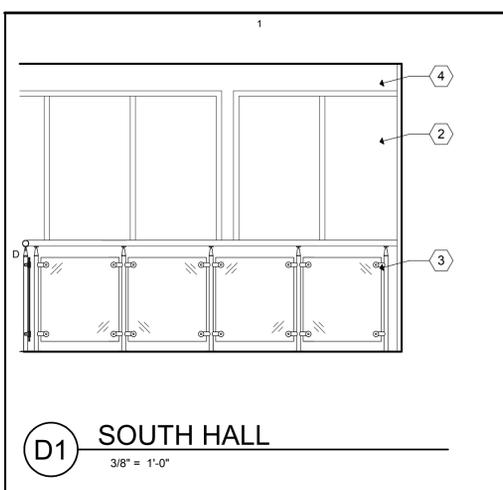
C2 SOUTH STAIRWAY
3/8" = 1'-0"



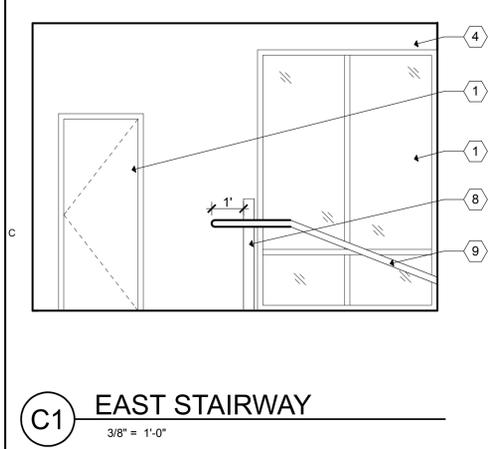
B2 HANDRAIL DETAIL
3" = 1'-0"



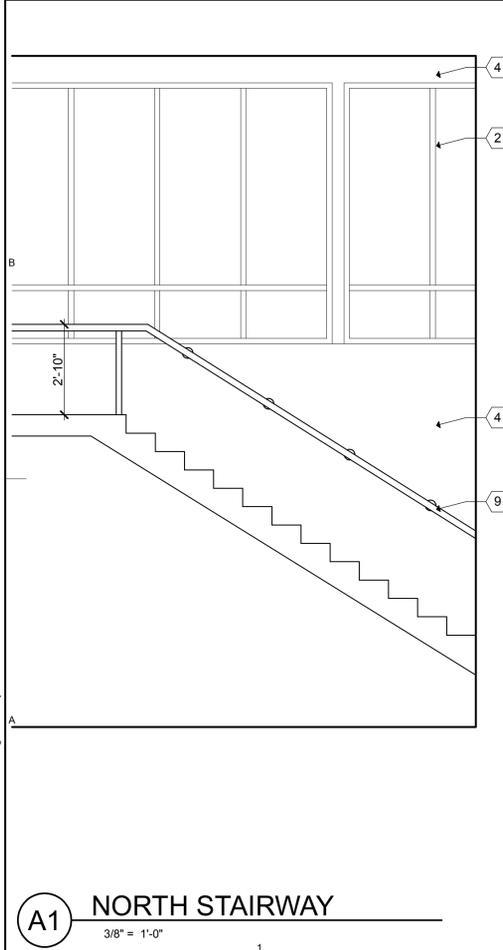
A2 GUARDRAIL DETAIL
1" = 1'-0"



D1 SOUTH HALL
3/8" = 1'-0"



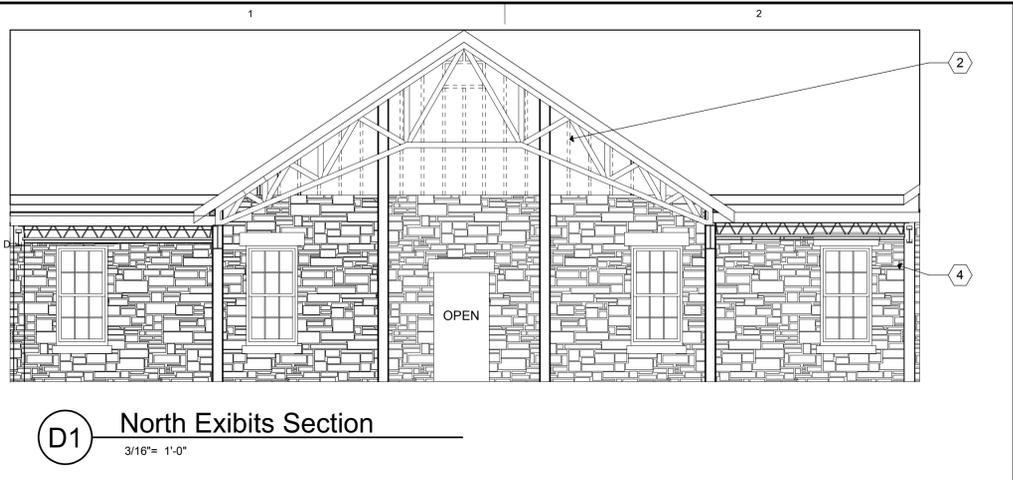
C1 EAST STAIRWAY
3/8" = 1'-0"



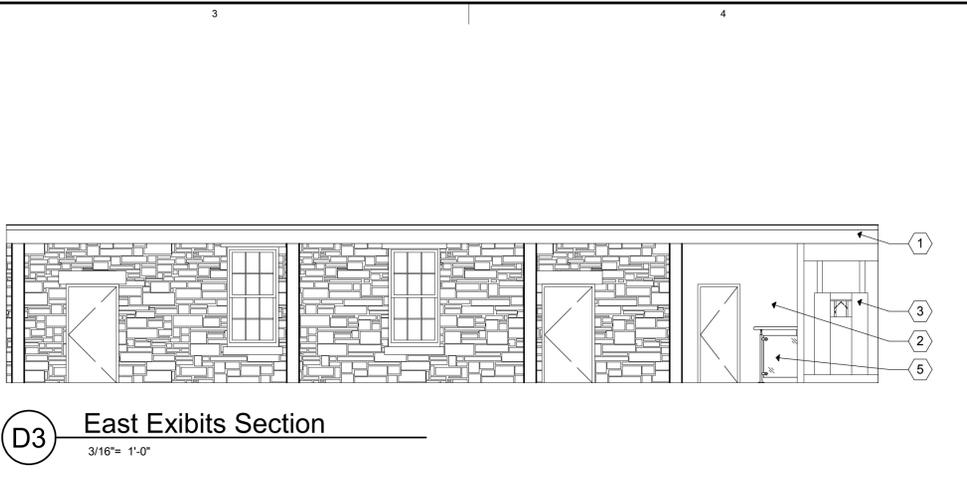
A1 NORTH STAIRWAY
3/8" = 1'-0"

REFERENCE NOTES

1. EXISTING DOOR
2. EXISTING WINDOW
3. NEW GUARDRAIL (A2/AE402)
4. NEW GYPSUM BOARD PAINTED
5. NEW STAIR GATE
6. INFILLED W/GYPSUM BOARD
7. EXISTING STONE
8. GATE STRIKE PLATE POST
9. NEW HANDRAIL (B2/AE402)



D1 North Exhibits Section
3/16" = 1'-0"



D3 East Exhibits Section
3/16" = 1'-0"

REFERENCE NOTES

1. 1"x10" PAINTED LUMBER.
2. NEW GYPSUM BOARD PAINTED
3. ADA LIFT
4. EXISTING STONE
5. NEW GUARDRAIL.

COOPER
ROBERTS
SIMONSEN
ASSOCIATES

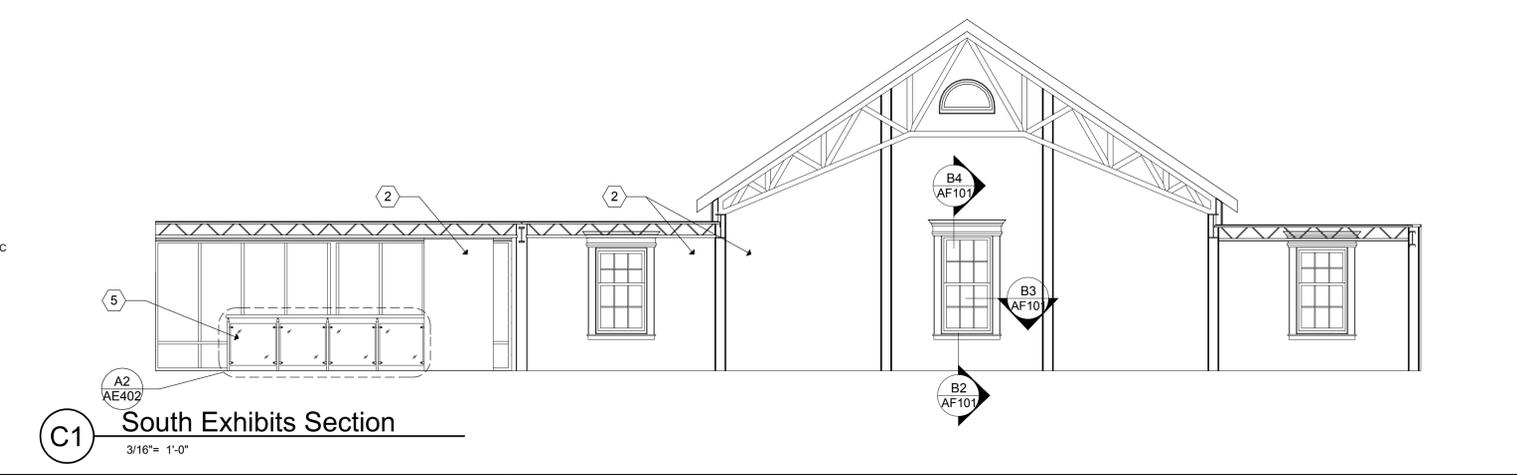
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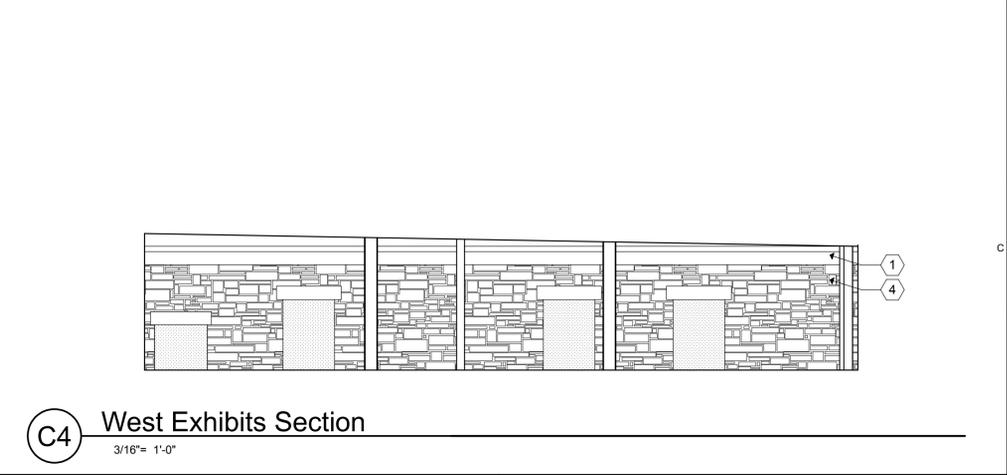
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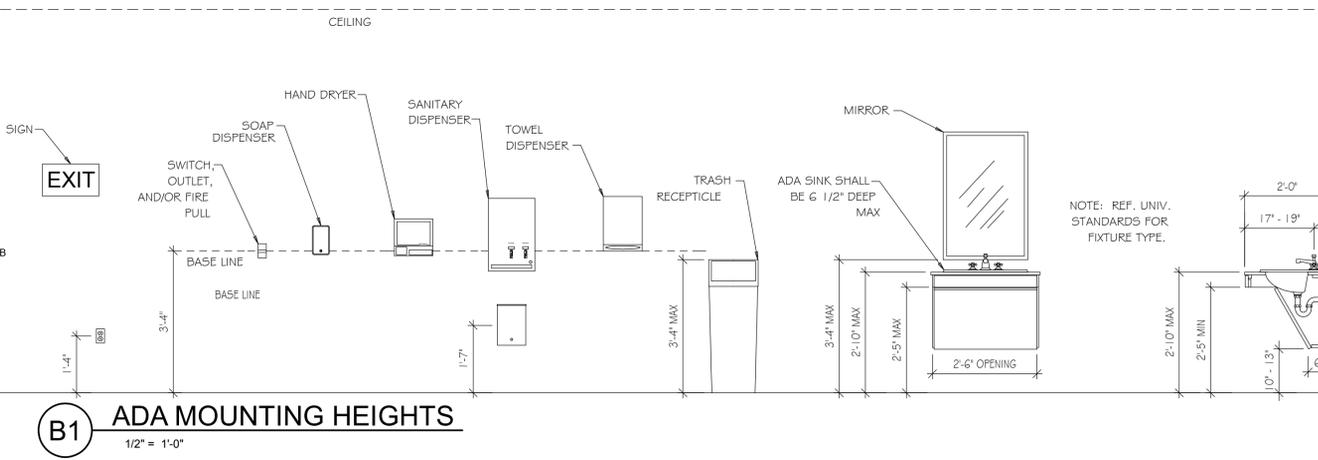
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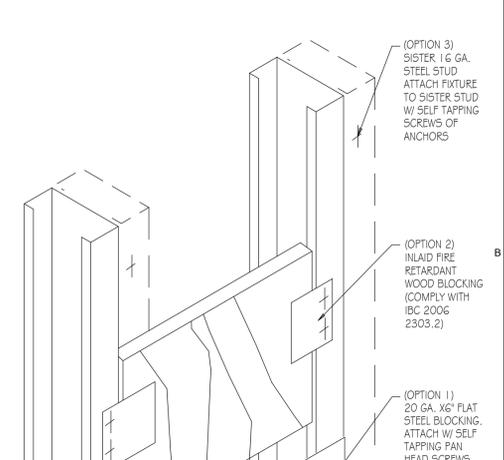
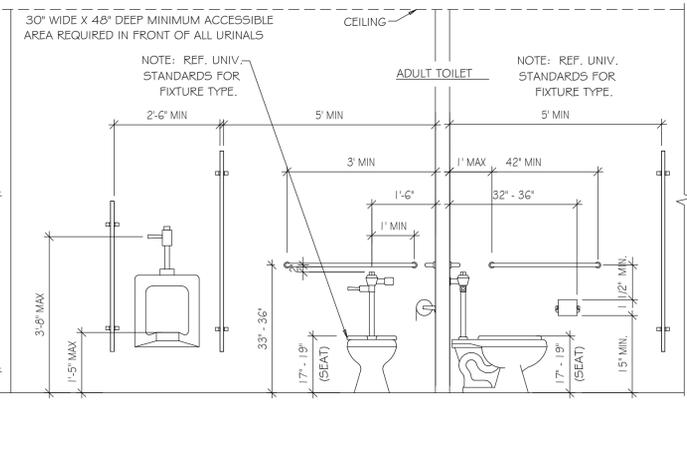
C1 South Exhibits Section
3/16" = 1'-0"



C4 West Exhibits Section
3/16" = 1'-0"



B1 ADA MOUNTING HEIGHTS
1/2" = 1'-0"



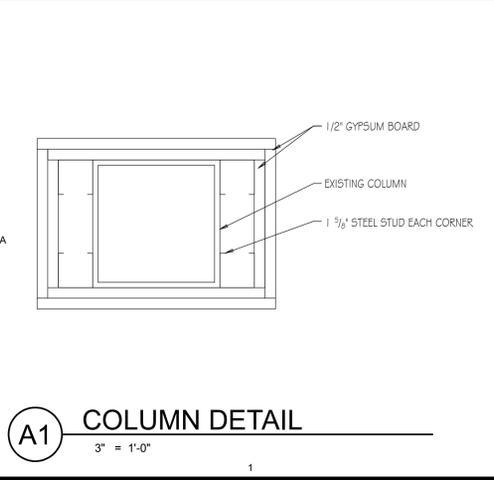
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BLDG 631 FT. DOUGLAS

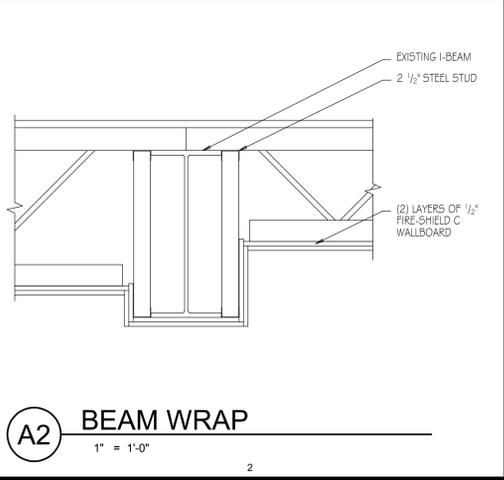
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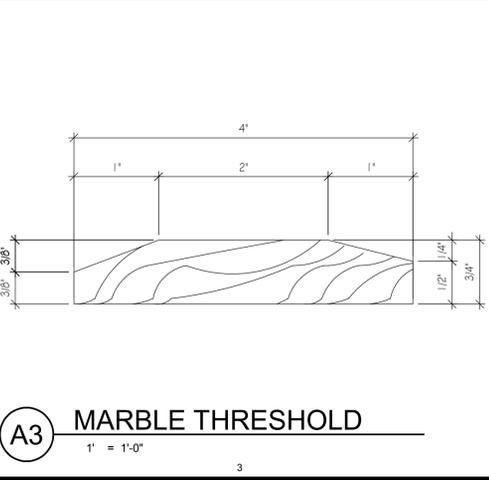
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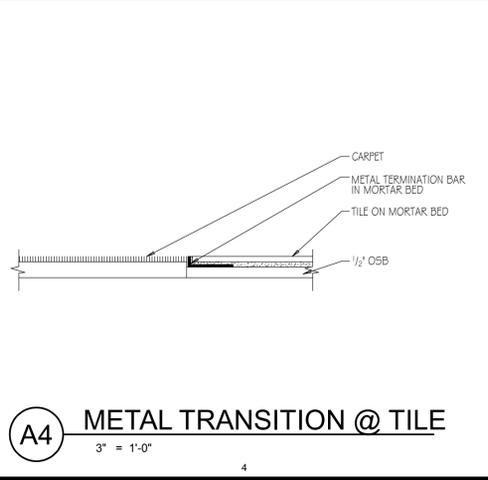
A1 COLUMN DETAIL
3" = 1'-0"



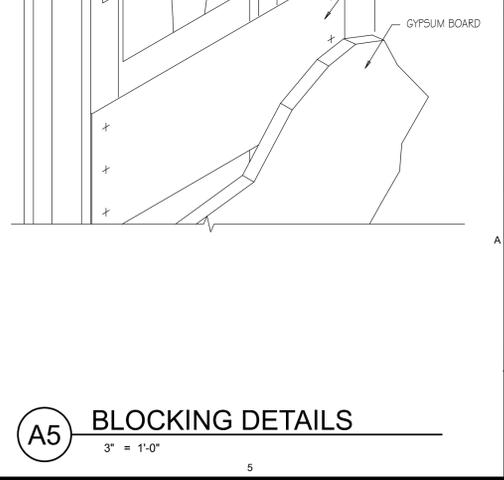
A2 BEAM WRAP
1" = 1'-0"



A3 MARBLE THRESHOLD
1" = 1'-0"



A4 METAL TRANSITION @ TILE
3" = 1'-0"



A5 BLOCKING DETAILS
3" = 1'-0"

AA	
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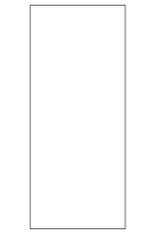
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DRAWN BY: JRW
CHECKED BY: AAH

INTERIOR ELEVATIONS & DETAILS

AE403

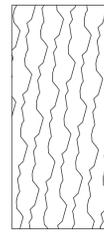
P:\B05-027 Ft. Douglas Military Museum AED\DrawPhase 2a\FDMM - 04.28.08.rvt
8/11/2008

DOOR TYPES



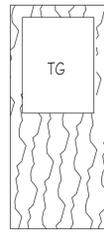
HOLLOW METAL DOOR

TYPE '1'



WOOD SOLID CORE

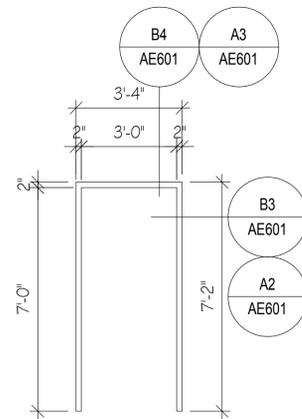
TYPE '2'



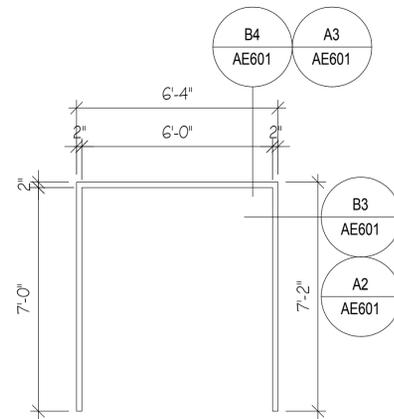
WOOD SOLID CORE

TYPE '3'

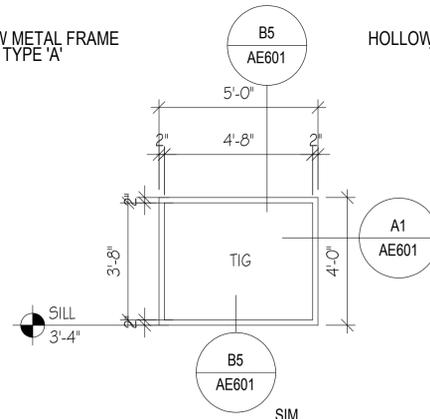
FRAME TYPES



HOLLOW METAL FRAME TYPE 'A'



HOLLOW METAL FRAME TYPE 'B'



INTERIOR HOLLOW METAL WINDOW TYPE 'H1'

LOWER LEVEL DOOR SCHEDULE

MARK	NAME	DOOR		MISCELLANEOUS			NOTES	
		PAIR	SINGLE	DOOR TYPE	DOOR SIZE	DOOR GLAZING		FRAME TYPE
002A	OFFICE		●	2	S1			
002B	OFFICE	●		3	S2	T.G.	B	
004	MECHANICAL		●	1	S1		A	
004a	MECHANICAL		●	1	S3		A	CUSTOM TO FIT EXISTING OPENING
005	ELECTRICAL		●	1	S1		A	
006A	ARCHAEOLOGY		●	2	S1		A	
006B	ARCHAEOLOGY		●	2	S1		A	
007	STORAGE		●	2	S1		A	
008	STAIRS		●	1	S1		A	

DOOR SIZES

S1 3'-0" X 7'-0"
S2 6'-0" X 7'-0"
S3 CUSTOM (FIELD VERIFY)

DOOR GLAZING

TIG TEMPERED INSULATED GLASS
TG TEMPERED GLASS

MAIN LEVEL DOOR SCHEDULE

MARK	NAME	DOOR		MISCELLANEOUS			NOTES	
		PAIR	SINGLE	DOOR TYPE	DOOR SIZE	DOOR GLAZING		FRAME TYPE
103	OFFICE		●	2	S1		A	
106	WOMENS RESTROOM		●	2	S1		A	
107	MENS RESTROOM		●	2	S1		A	
108	ORDINANCE		●	1	S1		A	
BUILDING 632								
113	MECHANICAL		●	1	S1		A	
116	ELECTRICAL		●	1	S1		A	

DOOR SIZES

S1 3'-0" X 7'-0"
S2 6'-0" X 7'-0"

DOOR GLAZING

TIG TEMPERED INSULATED GLASS
TG TEMPERED GLASS

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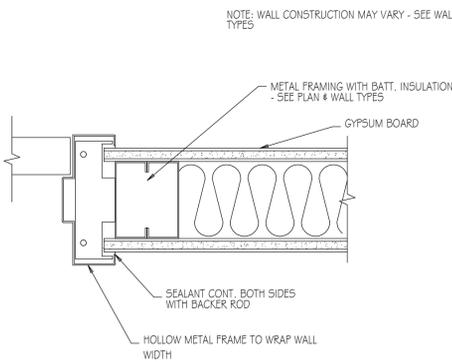
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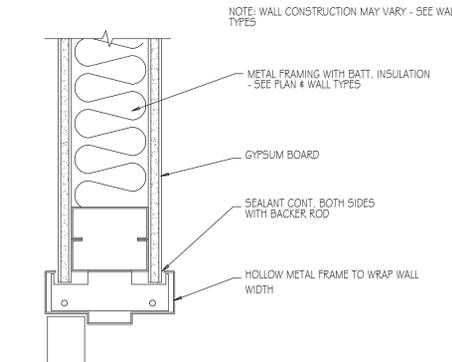
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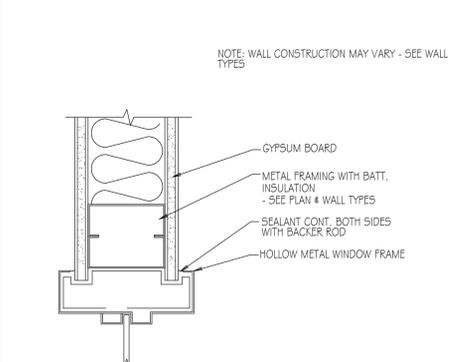
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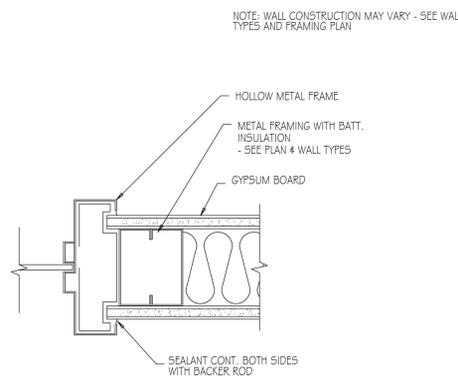
B3 HOLLOW METAL JAMB
3" = 1'-0"



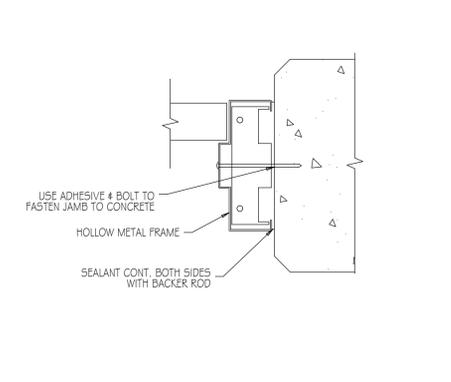
B4 HOLLOW METAL HEADER
3" = 1'-0"



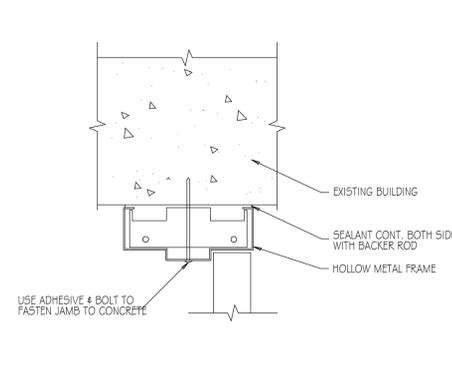
B5 HOLLOW METAL HEAD
3" = 1'-0"



A1 HOLLOW METAL SIDE
3" = 1'-0"



A2 HOLLOW METAL JAMB
3" = 1'-0"



A3 HOLLOW METAL HEADER
3" = 1'-0"

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PROJECT NO: B05-027

CAD DWG FILE: FDM - 04.28.08.1bk

DRAWN BY: JRW

CHECKED BY: AAH

DOOR & WINDOW SCHEDULES & DETAILS

AE601

STRUCTURAL NOTES

STRUCTURAL DESIGN LOADS

FLOOR(S):
DEAD LOAD: DL = 18 PSF
LIVE LOAD(S): LL = 100 PSF

SEISMIC:
OCCUPANCY CATEGORY: II
SPECTRAL RESPONSE COEF: SDS = 1.18, SD1 = 0.79
SITE CLASS: D

SOILS:
NET ALLOWABLE SOIL PRESSURE = 2000 PSF, PER REPORT.

GENERAL

- ALL DESIGN, CONSTRUCTION, AND INSPECTION SHALL BE IN CONFORMANCE WITH THE 2006 INTERNATIONAL BUILDING CODE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
- DRAWINGS INDICATE THE FINISHED PRODUCT. THEY DO NOT INDICATE A METHOD OF CONSTRUCTION. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH PRECAUTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE OWNER FOR ANY CHANGES MADE AS A RESULT OF A DEVIATION FROM THE CONTRACT DOCUMENTS, DEVIATION FROM THE SPECIFICATIONS, FAULTY MATERIALS, OR FAULTY WORKMANSHIP.
- OPTIONS ARE FOR THE CONTRACTORS CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED DESIGN CHANGES. COST ASSOCIATED WITH ANY DESIGN WORK INITIATED BY THE OPTION SHALL BE BORN BY THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE.
- TEMPORARY SHORING AND BRACING SHALL BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED INCLUDING WIND. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE COMPLETE.
- DURING AND AFTER CONSTRUCTION THE CONTRACTOR AND/OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN LOADS.
- THE GENERAL CONTRACTOR SHALL HAVE SHOP DRAWINGS REVIEWED BY THE ARCHITECT PRIOR TO THE FABRICATION OR ERECTION FOR THE FOLLOWING ITEMS: REINFORCING STEEL, STRUCTURAL STEEL, AND MISCELLANEOUS METALS.
- ALL DETAILS, SECTIONS, AND NOTES ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS UNLESS NOTED OR SHOWN OTHERWISE.
- REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT COVERED ON THE DRAWINGS.
- OBSERVATION VISITS TO THE JOB SITE BY FIELD REPRESENTATIVES OF CALDER RICHARDS CONSULTING ENGINEERS SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.
- SIZES, LOCATIONS, AND ANCHORAGES OF EQUIPMENT SHALL BE VERIFIED IN THE FIELD WITH EQUIPMENT MANUFACTURERS (SUPPLIERS) PRIOR TO PLACING CONCRETE OR FABRICATING STEEL.

QUALITY ASSURANCE PLAN

- SPECIAL INSPECTION SHALL BE PROVIDED BY THE OWNER ACCORDING TO IBC CHAPTER 17 FOR THE ITEMS IDENTIFIED IN THIS SECTION AND ON THE CONTRACT DOCUMENTS.
- THE NAMES AND CREDENTIALS OF SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT WHEN APPLYING FOR A BUILDING PERMIT.
- SPECIAL INSPECTION REPORTS SHALL BE DELIVERED TO THE ENGINEER OF RECORD, ARCHITECT, AND OWNER (AS REQUESTED) BI-WEEKLY OR MORE FREQUENTLY AS REQUIRED BY THE INSPECTOR OR BUILDING OFFICIAL.
- OFF-SITE FABRICATION: WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATORS SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE IN ACCORDANCE WITH IBC SECTION 1704.2 UNLESS THE FABRICATOR IS APPROVED ACCORDING TO IBC SECTION 1704.2.2.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 1704.4.
- SOILS: SPECIAL INSPECTION SHALL BE PROVIDED FOR PLACEMENT OF FILL 12 INCHES OR MORE DEEP IN ACCORDANCE WITH SECTION 1704.7.
- EPOXY ANCHORS: PRIOR TO AND DURING EPOXY INJECTION TO INSURE PROPER INSTALLATION AS PER MANUFACTURERS REQUIREMENTS. CONTRACTOR SHALL SUBMIT PROPOSED EPOXY MANUFACTURERS ICBO REPORT TO STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

QUALITY ASSURANCE - CONTRACTOR RESPONSIBILITY

- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR COMPONENT LISTED IN THE QUALITY ASSURANCE PLAN SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND TO THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
 - ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE QUALITY ASSURANCE PLAN.
 - ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
 - PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
 - IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THE POSITION(S) IN THE ORGANIZATION.

CONCRETE

- CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS:

SHOTCRETE WALLS.....	4000 PSI
INTERIOR SLABS ON GRADE.....	4000 PSI
EXTERIOR FLAT WORK.....	4000 PSI
- A STATEMENT OF MIX DESIGN FOR ALL CONCRETE SHALL BE SUBMITTED TO AND REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO COMMENCING WORK.
- ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, REINFORCE CONCRETE WALLS AS FOLLOWS:

WIDTH	HORIZ REINF	VERT REINF
4" WALL	#6 @ 12"	#6 @ 12" CENTER OF WALL
- BEFORE CONCRETE IS POURED CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES

REINFORCING STEEL

- ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI DETAILING MANUAL 315-92 AND ACI STANDARD 318-02.
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. LAP ONE MESH TIE.
- ALL REINFORCEMENT SHALL BE SECURELY TIED AND HELD IN PLACE.
- REINFORCING BARS THAT ARE TO BE WELDED, INCLUDING DEFORMED BAR ANCHORS (DBA) SHALL COMPLY WITH ASTM A706 OR ANOTHER WELDABLE GRADE AND SHALL BE WELDED IN ACCORDANCE WITH THE AWS RECOMMENDATIONS.
- ALL CONTINUOUS REINFORCEMENT SHALL TERMINATE WITH A 90 DEGREE TURN OR A SEPARATE CORNER BAR. ALL SPLICE SHALL HAVE A MINIMUM LAP OR EMBEDMENT PER REINFORCING SCHEDULE.
- WHERE THE LENGTH OF A BAR IS GIVEN AND IT IS TO BE HOOKED, THE HOOK SHALL BE IN ADDITION TO THE LENGTH GIVEN, UNLESS SHOWN OTHERWISE.
- COVER TO MAIN REINFORCEMENT FROM ADJACENT SURFACES SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE:

UNFORMED SURFACES IN CONTACT WITH GROUND OR EXPOSED TO THE WEATHER (BOTTOM OF FOOTINGS).....	3"
SLABS ON GRADE.....	2"
FORMED SURFACES IN CONTACT WITH THE GROUND OR EXPOSED TO THE WEATHER (GRADE BMS, WALLS, ETC), BEAMS AND COLUMNS.....	2"
STRUCTURAL SLABS AND JOISTS NOT EXPOSED TO WEATHER OR EARTH.....	1"
INTERIOR WALL SURFACES.....	1"
INTERIOR BEAMS AND COLUMNS.....	1-1/2"
IN ALL CASES MINIMUM COVER SHALL NOT BE LESS THAN THE DIAMETER OF ADJACENT BARS.	
- PRIOR TO FABRICATION AND PLACEMENT, SHOP DRAWINGS FOR ALL REINFORCING STEEL SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER.

STRUCTURAL STEEL

- ALL STRUCTURAL STEEL AND STRUCTURAL STEEL WORK SHALL COMPLY WITH BOTH THE AISC "MANUAL OF STEEL CONSTRUCTION" CONTAINING THE SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS, INCLUDING THE "CODE OF STANDARD PRACTICES" (LATEST EDITION), AND WITH THE IBC 2003 EDITION.
- ALL WIDE FLANGE STRUCTURAL STEEL SHALL BE ASTM A992 AND ALL MISCELLANEOUS SHAPES SHALL BE ASTM A36, UNO.
- STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B; YIELD STRESS = 46 KSI.
- STRUCTURAL STEEL PIPE COLUMNS SHALL CONFORM TO ASTM A501, GRADE B; YIELD STRESS = 35 KSI.
- USE A325 BOLTS FOR STEEL TO STEEL CONNECTIONS AND A307 BOLTS FOR ALL OTHER CONNECTIONS. USE 3/4" DIAMETER MINIMUM.
- PRIOR TO FABRICATION AND ERECTION, SHOP DRAWINGS FOR ALL STEEL ITEMS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL VERIFY ALL SHOP DRAWING DIMENSIONS WITH STRUCTURAL AND ARCHITECTURAL PLANS AND DETAILS.
- ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES AND BY WELDERS CERTIFIED BY AWS STANDARDS WITHIN THE PAST 12 MONTHS; PROVIDE WRITTEN CERTIFICATION IF REQUESTED.
- ALL HIGH-STRENGTH BOLTS SHALL BE TIGHTENED TO THE APPROPRIATE MINIMUM BOLT TENSION IN ACCORDANCE WITH "AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." THE PREFERRED METHOD OF TIGHTENING IS BY USE OF A "DIRECT TENSION INDICATOR." THE TURN-OF-NUT METHOD MAY ALSO BE USED. PROVIDE CARBONIZED WASHERS UNDER THE TURNED ELEMENT.

WOOD FRAMING

- STRUCTURAL FRAMING LUMBER SHALL BE CLEARLY MARKED AND MEET THE FOLLOWING MINIMUM GRADES AS DEFINED BY THE 2001 EDITION OF THE NATIONAL DESIGN SPECIFICATION:
 - 2" TO 4" THICK:

5" AND WIDER:	DOUGLAS FIR-LARCH (SOUTH)
	GRADE NO. 2
 - BEARING WALL STUDS: DOUGLAS FIR-LARCH (SOUTH)

UP TO 8' LENGTH:	STUD GRADE OR BETTER
OVER 8' LENGTH:	NO. 2 OR BETTER
 - POSTS AND TIMBERS: DOUGLAS FIR-LARCH (SOUTH)

	GRADE NO. 1
--	-------------
- ALL JOISTS SHALL BE SUPPORTED LATERALLY AT THE ENDS AND AT EACH SUPPORT BY SOLID BLOCKING 2" THICK AND THE FULL DEPTH OF THE JOIST, EXCEPT WHERE THE END OF THE JOIST IS ATTACHED TO A HEADER OR BOND BEAM WITH METAL ANCHORS OR HANGERS.
- ALL NAILS SPECIFIED ON DETAILS OR SCHEDULED SHALL BE COMMON NAILS UNLESS NOTED OTHERWISE.
- HOLES FOR NAILS, WHERE NECESSARY TO PREVENT SPLITTING, SHALL BE BORED OF A DIAMETER SMALLER THAN THAT OF THE NAILS.
- ALL JOISTS AND BEAM HANGERS, FRAMING ANCHORS, STRAP TIES, AND OTHER METAL FASTENERS FOR WOOD FRAMING SHALL BE SIMPSON BRAND (OR EQUIV).
- CUTTING AND NOTCHING OF STUDS. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40% OF THE WIDTH IS PERMITTED IN NONBEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITION.
- BORED HOLES IN STUDS. A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 60% OF THE WIDTH OF THE STUD ARE PERMITTED IN NONBEARING PARTITIONS OR IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLED STUDS ARE SO BORED.
- IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8" TO THE EDGE OF THE STUD.
- NAILS AND STAPLES SHALL COMPLY WITH THE REQUIREMENTS OF ASTM F 1667.

MANUFACTURED TIMBER PRODUCTS

- GLUE-LAMINATED TIMBER (GLS):
UNLESS NOTED OTHERWISE, ALL GLUE-LAMINATED TIMBER SHALL BE OF DOUGLAS FIR (NORTH) AND HAVE THE FOLLOWING PROPERTIES:

MIN ALLOWABLE BENDING STRESS	Fb = 2400 PSI
MIN ALLOWABLE SHEAR STRESS	Fv = 190 PSI
MODULUS OF ELASTICITY	E = 1,800,000 PSI

UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL GLUE-LAMINATED BEAMS SHALL HAVE A POSITIVE CAMBER OF AN 1800' RADIUS.
EXPOSED GLUE-LAMINATED TIMBER SHALL BE OF ARCHITECTURAL GRADE.
- LAMINATED VENEER LUMBER (LVL):
UNLESS NOTED OTHERWISE, LVL BEAMS SHALL HAVE THE FOLLOWING PROPERTIES:

MIN ALLOWABLE BENDING STRESS	Fb = 2600 PSI x (12/D) ^{0.136}
MIN ALLOWABLE SHEAR STRESS	Fv = 285 PSI
MODULUS OF ELASTICITY	E = 1,900,000 PSI
- PARALLEL STRAND LUMBER (PSL):
UNLESS NOTED OTHERWISE, PSL MEMBERS SHALL HAVE THE FOLLOWING PROPERTIES:

MIN ALLOWABLE BENDING STRESS	Fb = 2900 PSI x (12/D) ^{0.111}
MIN ALLOWABLE SHEAR STRESS	Fv = 290 PSI
MODULUS OF ELASTICITY	E = 2,000,000 PSI
COMPRESSION PARALLEL TO GRAIN	Fc = 2900 PSI
COMPRESSION PERPENDICULAR TO GRAIN AND PARALLEL TO WIDE FACE OF STRANDS	Fc = 650 PSI
- LAMINATED STRAND LUMBER (LSL):
UNLESS NOTED OTHERWISE, LSL MEMBERS SHALL HAVE THE FOLLOWING PROPERTIES:

MIN ALLOWABLE BENDING STRESS	Fb = 2250 PSI x (12/D) ^{0.092}
MIN ALLOWABLE SHEAR STRESS	Fv = 285 PSI
MODULUS OF ELASTICITY	E = 1,500,000 PSI
COMPRESSION PARALLEL TO GRAIN	Fc = 1950 PSI
COMPRESSION PERPENDICULAR TO GRAIN AND PARALLEL TO WIDE FACE OF STRANDS	Fc = 650 PSI

PREFABRICATED WOOD JOISTS

- JOISTS SHALL BE BY MANUFACTURER SPECIFIED ON THE DRAWINGS.
- THE FABRICATION PLANT MUST HAVE A CURRENT ICBO RESEARCH COMMITTEE RECOMMENDATION CARD APPLICABLE TO THE PARTICULAR JOIST ASSEMBLY AND PLANT LOCATION INVOLVED.
- STRUCTURAL CAPACITIES AND DESIGN PROVISIONS FOR PREFABRICATED WOOD I-JOISTS SHALL BE ESTABLISHED AND MONITORED IN ACCORDANCE WITH ASTM D 5055.
- PRIOR TO FABRICATION AND PLACEMENT, SHOP DRAWINGS FOR ALL PREFABRICATED JOISTS SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER. STRUCTURAL CALCULATIONS OR LOAD TABLES FOR THE JOISTS SHALL ALSO BE SUBMITTED TO THE STRUCTURAL ENGINEER AT THIS TIME.
- STRUCTURAL CALCULATIONS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER, AND LOAD TABLES SHALL BE APPROVED BY ICBO.
- MANUFACTURER SHALL PROVIDE ALL BLOCKING, WEB STIFFENERS, ETC, REQUIRED FOR PROPER ERECTION OF JOISTS, INCLUDING ITEMS NOT SHOWN ON DRAWINGS. SHOP DRAWINGS SHALL CLEARLY INDICATE LOCATIONS FOR THESE ITEMS.
- UNLESS NOTED OTHERWISE, PROVIDE SOLID, FULL DEPTH PREFABRICATED BLOCKING AT THE ENDS AND OVER EACH SUPPORT.
- ANCHOR ALL JOISTS TO SUPPORTS WITH GALVANIZED FRAMING ANCHORS.

DRILL & EPOXY ANCHORAGES

- USE HILTI HIT HY150 ADHESIVE SYSTEM OR EQUIVALENT FOR CONCRETE AND SOLID GROUTED MASONRY CONNECTIONS.
- USE HILTI HY20 ADHESIVE SYSTEM OR EQUIVALENT FOR ALL HOLLOW UNIT CMU CONNECTIONS AND UNREINFORCED MASONRY WALLS, INCLUDING MULTI-WYTHE WALLS.
- TEN PERCENT OF ALL ANCHORS PLACED SHALL BE RANDOMLY TESTED TO 100% OF MANUFACTURER'S SPECIFIED ALLOWABLE LOAD. IF ANY ANCHOR FAILS IT SHALL BE REPLACED AND RETESTED AT NO ADDITIONAL COST TO THE OWNER. IF AN ANCHOR FAILS, 100% OF ALL OTHER ANCHORS INSTALLED BY THAT SAME CREW SHALL BE TESTED AT NO ADDITIONAL COST TO THE OWNER.

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MAIN FLOOR
FRAMING
PLAN

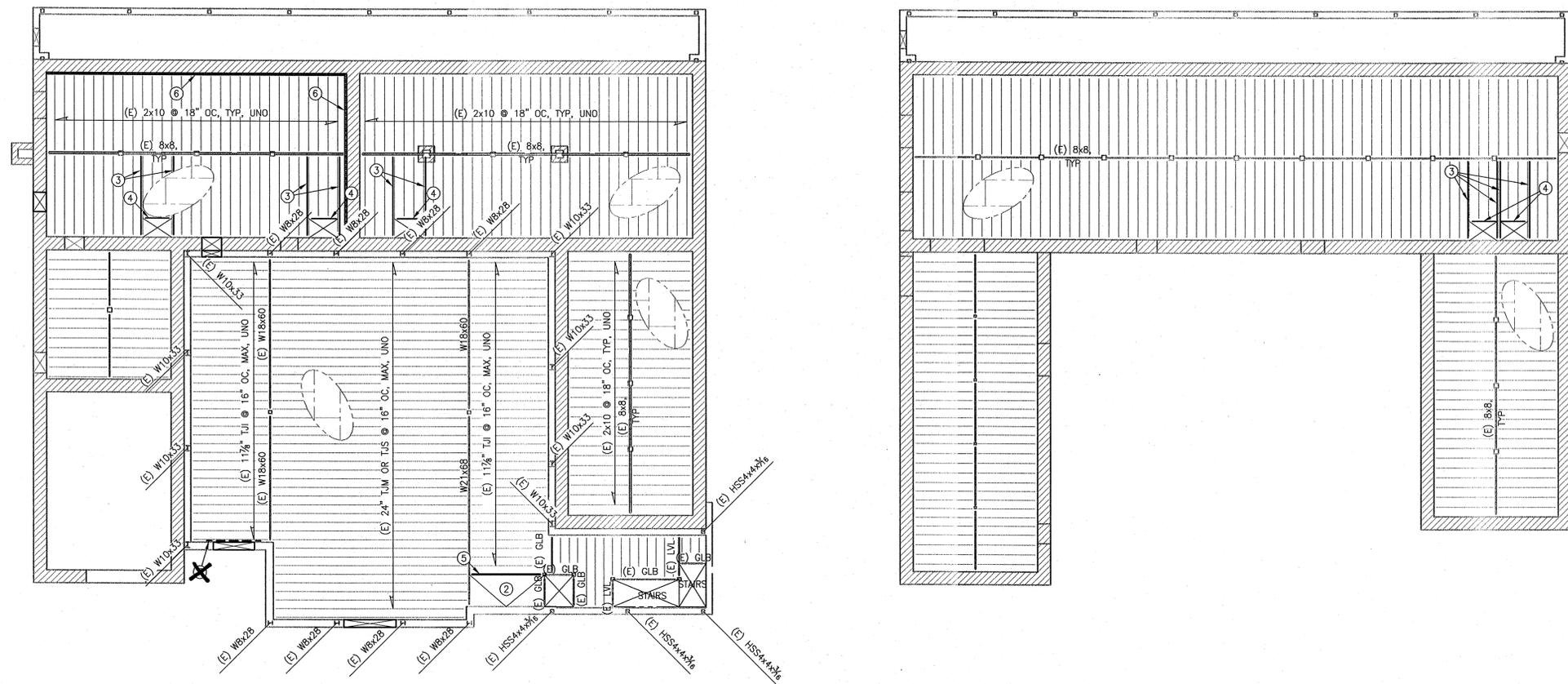
S102

MAIN FLOOR FRAMING NOTES

1. CIRCLED NOTES ARE KEYED ON PLAN.
2. SEE GENERAL NOTES ON SHEET S001 FOR ADDITIONAL INFORMATION.
3. NEW LIFT HATCH. (BID ALTERNATE #2) SEE DETAIL B3/S201.
4. SPIKE ON NEW 1 3/4x9/4 LVL TO (E) 2x10 W/ 16d @ 6" OC, STAGGERED. SEE DTL B5/S201 FOR CONN AT (E) URM WALL.
5. NEW (2) 1 3/4x9/4 LVL HEADER BEAM. PROVIDE NEW SIMPSON MIU3.56/9 HANGER EACH END OF BEAM.
6. NEW 1 3/4x11 7/8 LVL. (BID ALTERNATE #2)
7. PROVIDE NEW 4" SHOTCRETE WALL TO UNDERSIDE OF EXISTING MAIN FLOOR JOIST. SEE DETAILS A2/S201 & A3/S201.
8. ~~ANGLE LATEL FOR NEW OPENING (SEE ALTERNATE) SEE DETAIL C5/S201.~~

LEGEND

	STEEL COLUMNS - HSS, WIDE FLANGE		EXISTING MASONRY WALL EXTENDING ABOVE DECK
	STEEL BEAM		CONCRETE WALL EXTENDING ABOVE DECK
	WOOD JOIST		MASONRY OR CONCRETE WALL EXTENDING TO UNDERSIDE OF FLOOR DECK
	WOOD SHEATHING, W/ SPAN DIRECTION INDICATED		OPENING IN CONCRETE OR MASONRY WALL BELOW DECK
	OPENING IN DECK		



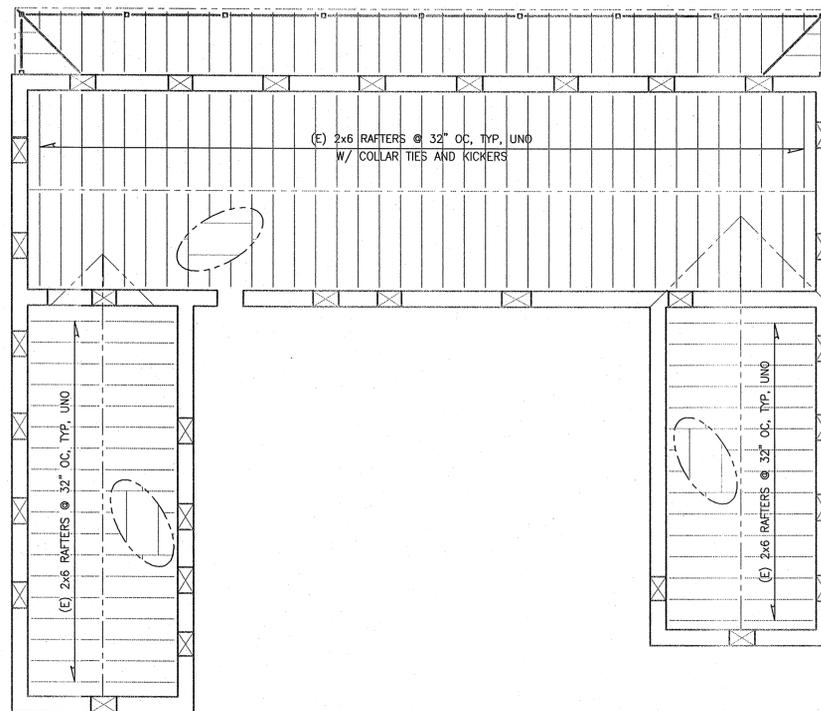
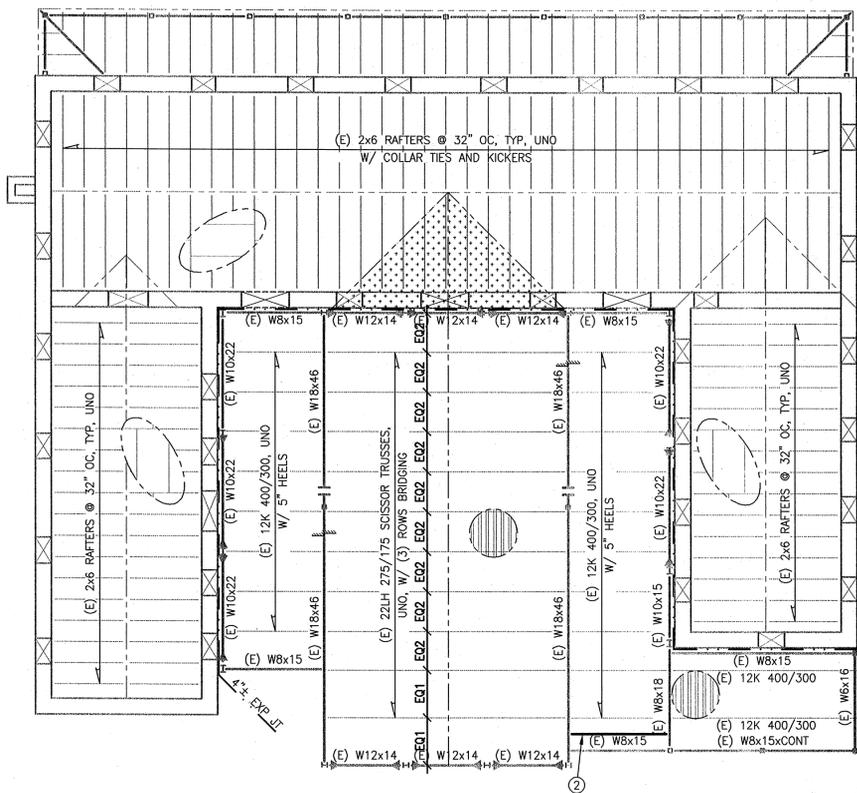
MAIN FLOOR FRAMING PLAN
SCALE: 3/32" = 1'-0"

ROOF FRAMING NOTES

- CIRCLED NOTES ARE KEYED ON PLAN.
- 1. SEE GENERAL NOTES ON SHEET S001 FOR ADDITIONAL INFORMATION.
- 2. NEW WBx15 TROLLY/CRAVE SUPPORT BEAM, (BID ALTERNATE #2) SEE DETAIL C3/S201.

LEGEND

- CHANGE IN ELEVATION
- STEEL COLUMNS - HSS, WIDE FLANGE
- STEEL BEAM, GIRDER
- STEEL JOIST
- METAL ROOF DECK, W/ SPAN DIRECTION INDICATED
- WOOD SHEATHING, W/ SPAN DIRECTION INDICATED
- OPENING IN DECK
- EXISTING MASONRY WALL
- OPENING IN CONCRETE OR MASONRY WALL BELOW DECK



ROOF FRAMING PLAN

SCALE: 3/32" = 1'-0"

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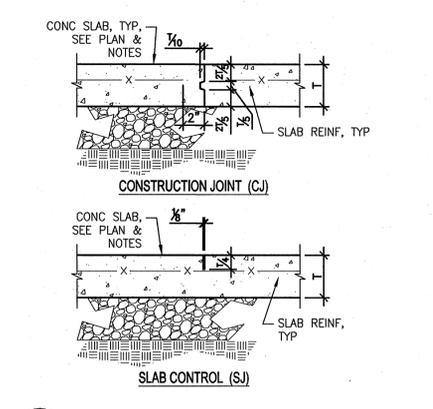
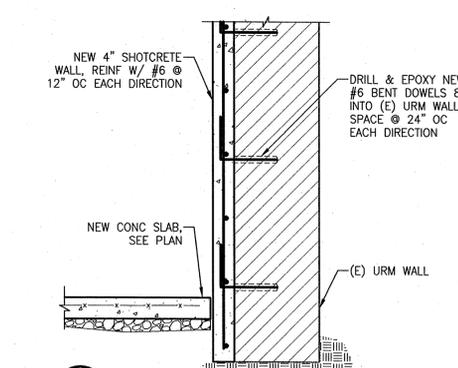
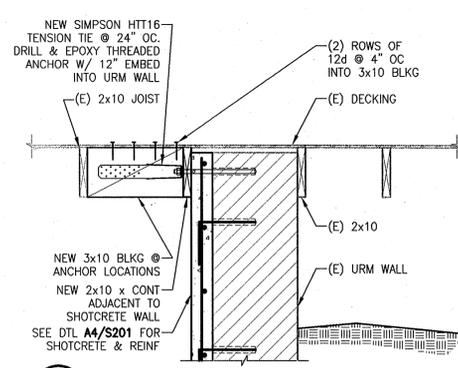
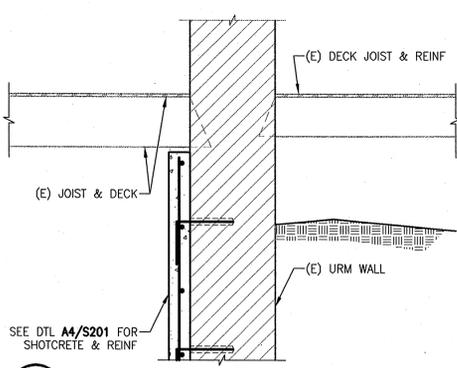
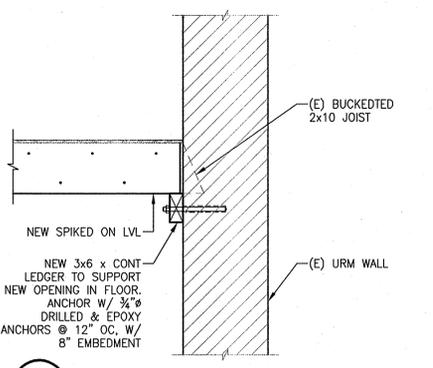
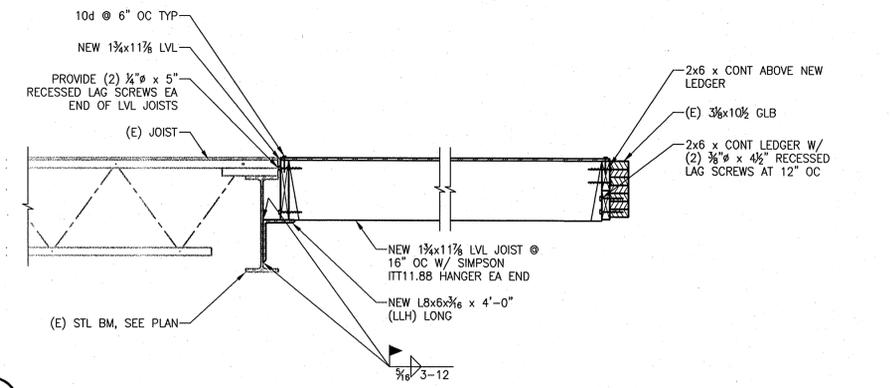
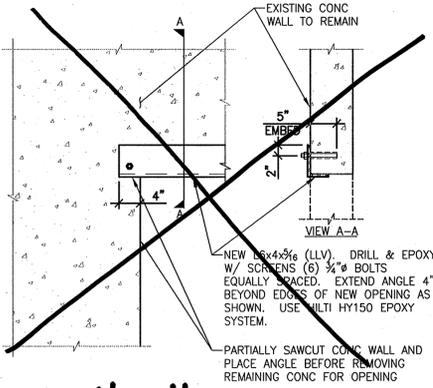
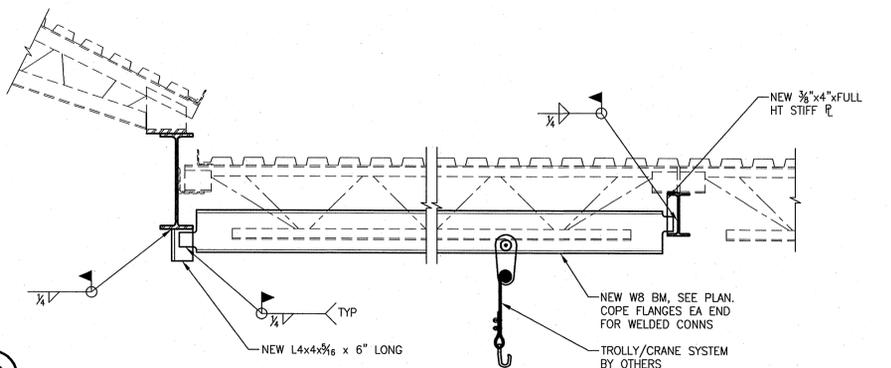
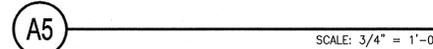
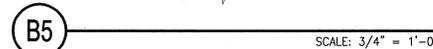
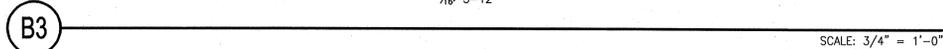
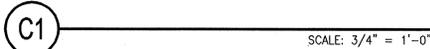
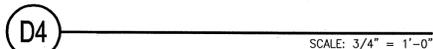
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**ROOF
FRAMING
PLAN**

S103

REINFORCING LAP LENGTH SPLICE SCHEDULES								
TENSION BARS "Ld"								
BAR SIZE	fc= 3000psi				fc= 4000psi			
	REGULAR		TOP		REGULAR		TOP	
	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS
	A	B	A	B	A	B	A	B
#3	17"	22"	22"	28"	15"	19"	19"	24"
#4	22"	29"	29"	38"	18"	25"	26"	33"
#5	28"	36"	37"	48"	24"	31"	32"	42"
#6	33"	43"	45"	58"	29"	37"	39"	50"
#7	48"	63"	63"	82"	42"	55"	55"	71"
#8	55"	72"	72"	93"	48"	63"	63"	81"
#9	62"	81"	81"	105"	54"	71"	71"	92"
#10	70"	91"	91"	118"	61"	79"	79"	103"
#11	78"	101"	101"	131"	68"	88"	88"	114"

- NOTES:
1. THE SCHEDULE SHOWN APPLIES TO REG. WT. CONCRETE WITH 60ksi GRADE REINFORCING BARS.
 2. TOP BARS ARE HORIZONTAL BARS WITH 12" (OR MORE), OF FRESH CONCRETE CAST BELOW THE BARS.
 3. CLASS "A" SPLICES SHALL BE USED WHEN 50% (OR LESS) OF BARS SPLICED WITHIN LAP.
 4. CLASS "B" SPLICES SHALL BE USED FOR ALL ELSE, TYPICALLY W/ SHEARWALLS, COLUMNS, BEAMS & SLABS.
 5. FOR EPOXY COATED BARS, INCREASE LAP LENGTHS AS FOLLOWS:
TOP BARS - Ld x 1.7
REGULAR BARS - Ld x 1.5
 6. FOR BUNDLED BARS, INCREASE LAP LENGTHS AS FOLLOWS:
BUNDLED BARS THREE OR LESS - Ld x 1.2
BUNDLED BARS FOUR OR MORE - Ld x 1.33
INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP.
 7. LAP SPLICES ARE NOT ALLOWED FOR TIES AND STIRRUPS.



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CHECKED BY: SAP	

STRUCTURAL
DETAILS

S201

#

DRAWINGS INDEX

SHEET NUMBER	SHEET TITLE
MH001	MECHANICAL LEGEND & ABBREVIATIONS
MD101	LOWER LEVEL MECHANICAL DEMOLITION PLAN
MD102	MAIN LEVEL MECHANICAL DEMOLITION PLAN
MD103	UPPER LEVEL MECHANICAL DEMOLITION PLAN
MD104	DEMOLITION ROOF PLAN
MH101	LOWER LEVEL MECHANICAL PLAN
MH102	MAIN LEVEL MECHANICAL PLAN
MH103	UPPER LEVEL MECHANICAL PLAN
MH501	MECHANICAL DETAILS
MH601	MECHANICAL SCHEDULES
PL101	LOWER LEVEL PLUMBING PLAN
PL102	MAIN LEVEL PLUMBING PLAN

ABBREVIATIONS

Ø	ROUND OR DIAMETER	MAX	MAXIMUM
AD	ACCESS DOOR	MBH	THOUSAND BRITISH THERMAL UNITS/HOUR
AF	AIRFOIL	MECH	MECHANICAL
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
ALT	ALTERNATE	NC	NOISE CRITERIA OR NORMALLY CLOSED
BI	BACKWARD INCLINED	NIC	NOT IN CONTRACT
BOD	BOTTOM OF DUCT	NO	NUMBER
BOP	BOTTOM OF PIPE	NOM	NOMINAL
BTU/H	BRITISH THERMAL UNITS PER HOUR	NTS	NOT TO SCALE
CAP	CAPACITY	OA	OUTSIDE AIR
CFM	CUBIC FEET PER MINUTE	OBD	OPPOSED BLADE DAMPER
CV	CONSTANT VOLUME	OD	OVERFLOW DRAIN
DB	DRY BULB	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
DIA	DIAMETER	OFCI	OWNER FURNISHED, OWNER INSTALLED
DSN	DOWN SPOUT NOZZLE	PD	PRESSURE DROP
DW	DISHWASHER	POC	POINT OF CONNECTION
(E)	EXISTING	PRV	PRESSURE REDUCING VALVE
EAT	ENTERING AIR TEMPERATURE	PSI	POUNDS PER SQUARE INCH
EFF	EFFICIENCY	PSIG	POUNDS PER SQUARE INCH GAUGE
ELEV	ELEVATION	RA	RETURN AIR
ENCL	ENCLOSURE	RAD	RADIUS
ESP	EXTERNAL STATIC PRESSURE	RD	ROOF DRAIN
ET	EXPANSION TANK	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
EWC	ELECTRIC WATER COOLER	SA	SUPPLY AIR
EWI	ENTERING WATER TEMPERATURE	SEN	SENSIBLE
FCO	FLOOR CLEANOUT	SIM	SIMILAR
FD	FLOOR DRAIN	SL	SEA LEVEL
FO	FLAT OVAL	SP	STATIC PRESSURE
FPM	FEET PER MINUTE	SQ FT	SQUARE FEET
FS	FLOOR SINK	SS	SERVICE SINK OR STAINLESS STEEL
FT	FEET	TOD	TOP OF DUCT
FV	FACE VELOCITY	TSP	TOTAL STATIC PRESSURE
GA	GAUGE	U	URINAL
GAL	GALLON	VAV	VARIABLE AIR VOLUME
GD	GARAGE DRAIN	VD	VOLUME DAMPER
GPM	GALLONS PER MINUTE	VFD	VARIABLE FREQUENCY DRIVE
HP	HORSEPOWER	VOL	VOLUME
HR	HOUR	VTR	VENT THROUGH ROOF
HT	HEIGHT	W/	WITH
IN	INCH	W/O	WITHOUT
INWC	INCHES OF WATER COLUMN	WB	WET BULB
INWG	INCHES OF WATER GAUGE	WC	WATER CLOSET
L	LAVATORY OR LOUVER	MVD	MANUAL VOLUME DAMPER
LAT	LEAVING AIR TEMPERATURE	WCO	WALL CLEANOUT
LBS	POUNDS	WPD	WATER PRESSURE DROP
LWT	LEAVING WATER TEMPERATURE	WT	WEIGHT

MECHANICAL LEGEND

NOTE: ALL ITEMS MAY NOT APPEAR ON DRAWINGS

GATE VALVE		STORM DRAIN ABOVE GRADE	
OS & Y PATTERN GATE VALVE		STORM DRAIN BELOW GRADE	
BALL VALVE		FIRE SERVICE	
BUTTERFLY VALVE		NATURAL GAS	
MOTORIZED VALVE OPERATOR		PROPANE	
GAS COCK		HEAT TRACING	
PLUG VALVE		CHILLED WATER SUPPLY	
CHECK VALVE (SWING OR LIFT AS REQ'D)		CHILLED WATER RETURN	
SOLENOID VALVE		CONDENSER WATER SUPPLY	
AUTOMATIC CONTROL VALVE (2-WAY)		CONDENSER WATER RETURN	
AUTOMATIC CONTROL VALVE (3-WAY)		HEATING WATER SUPPLY	
PRESSURE REDUCING VALVE		HEATING WATER RETURN	
P & T RELIEF VALVE		RADIANT FLOOR SUPPLY	
AIR VENT (AUTOMATIC)		RADIANT FLOOR RETURN	
CURB COCK		STEAM	
THERMAL EXPANSION VALVE		STEAM CONDENSATE RETURN	
STRAINER		REFRIGERANT LIQUID	
CALIBRATED BALANCE VALVE		REFRIGERANT SUCTION	
VENTURI FLOW METER		HOT GAS	
REDUCER		HOT GAS BYPASS	
PET COCK OR GAUGE COCK		DUCT SIZE (N), FIRST FIGURE IS SIDE SHOWN	
PRESSURE GAUGE W/GAUGE COCK		BURIED OR UNDERFLOOR DUCT	
THERMOMETER		DUCT W/ ACOUSTICAL LINING	
TEMPERATURE & PRESSURE TEST PLUG		FLEXIBLE DUCT (HELICAL)	
IN-LINE PUMP		SPIN-IN FITTING W/ MVD	
FLOW SWITCH		FLEXIBLE DUCT CONNECTION	
AQUASTAT		SUPPLY SLOT DIFFUSER	
TEMPERATURE SENSING WELL		SUPPLY DIFFUSER	
HOSE BIBB OR SILLCOCK		RETURN GRILLE	
YARD HYDRANT		RADIAL SUPPLY DIFFUSERS	
FLOOR DRAIN		RETURN AIR DUCT SECTION	
FLOOR SINK		RETURN AIR DUCT UP	
MANHOLE		RETURN AIR DUCT DOWN	
WALL CLEANOUT		SUPPLY AIR DUCT SECTION	
FLOOR OR GRADE CLEANOUT		SUPPLY AIR DUCT UP	
GRADE CLEANOUT W/ CONCRETE PAD		SUPPLY AIR DUCT DOWN	
VENT THROUGH ROOF		EXHAUST AIR DUCT SECTION	
POST TYPE FDC CONNECTION		EXHAUST AIR DUCT UP	
WALL TYPE FDC CONNECTION		EXHAUST AIR DUCT DOWN	
FIRE HOSE CABINET		ACCESS PANEL	
FIRE DEPT. HORN & LIGHT		MANUAL VOLUME DAMPER	
EXPANSION JOINT		GRAVITY BACKDRAFT DAMPER	
FLEXIBLE PIPE CONNECTION		MOTORIZED DAMPER	
REDUCED PRESSURE BACKFLOW PREVENTER		AIR FLOW STATION	
DIRECTION OF FLOW		FIRE DAMPER	
ELBOW DOWN		SMOKE DAMPER	
ELBOW UP		COMBINATION FIRE/SMOKE DAMPER	
PIPE CAP		DUCT TRANSITION	
TEE DOWN		ELBOW W/ TURNING VANES	
UNION		TEE W/ 45° ENTRY	
DOMESTIC COLD WATER		WYE W/ 45° ENTRY	
DOMESTIC HOT WATER		THERMOSTAT OR TEMP SENSOR	
HOT WATER CIRC.		HUMIDISTAT OR HUMIDITY SENSOR	
TEMPERED WATER		POINT OF REMOVAL FROM EXISTING	
SANITARY (PLBG) VENT		POINT OF CONNECTION TO EXISTING	
SANITARY SEWER ABOVE GRADE		DETAIL TAG	
SANITARY SEWER BELOW GRADE		DETAIL NO. DRAWING NO.	
DRAIN		NOTE NO.	
ROOF DRAIN		KEYED NOTE	
OVERFLOW DRAIN		SECTION CUT LINE	
		SECTIONS NO. DRAWING NO.	

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**MECHANICAL
LEGEND &
ABBREVIATIONS**

MH001

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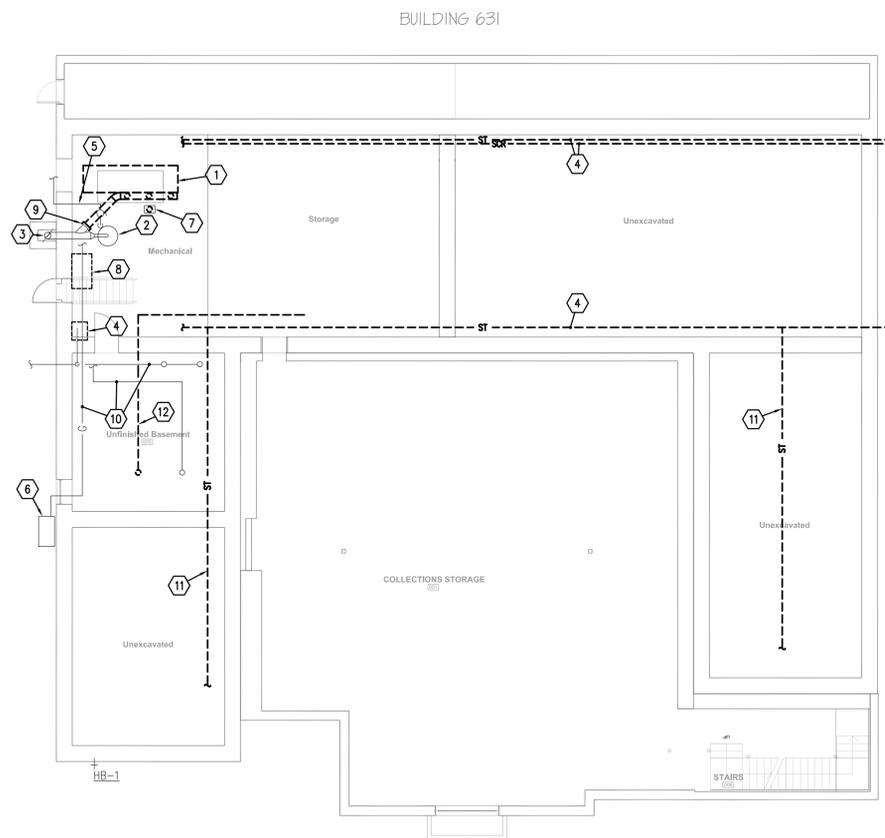
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**LOWER LEVEL
MECHANICAL
DEMOLITION PLAN**

MD101



- KEYED NOTES**
- ① REMOVE STEAM BOILER & ALL ASSOCIATED PIPING & EQUIPMENT.
 - ② WATER HEATER & ALL ASSOCIATED PIPING & EQUIPMENT TO REMAIN.
 - ③ FLUE UP THROUGH CHIMNEY TO REMAIN.
 - ④ REMOVE ALL STEAM SUPPLY AND CONDENSATE RETURN PIPING.
 - ⑤ DOMESTIC COLD WATER TO REMAIN.
 - ⑥ EXISTING GAS METER TO REMAIN.
 - ⑦ REMOVE SUMP PUMP & ALL ASSOCIATED PIPING. SUMP PIT TO REMAIN.
 - ⑧ EXISTING COLD WATER AND HOT WATER PIPING TO REMAIN.
 - ⑨ CAP FLUE AND REMOVE ALL BOILER FLUE.
 - ⑩ PIPING TO REMAIN.
 - ⑪ PIPING IN UNEXCAVATED AREA TO BE ABANDONED IN PLACE. REMOVE FROM WALL AND FLOORS.
 - ⑫ REMOVE REFRIGERATION PIPING.

1 LOWER LEVEL MECHANICAL DEMOLITION PLAN
SCALE: 3/32" = 1'-0"
6' 0 4' 8' 12' 16' 24'

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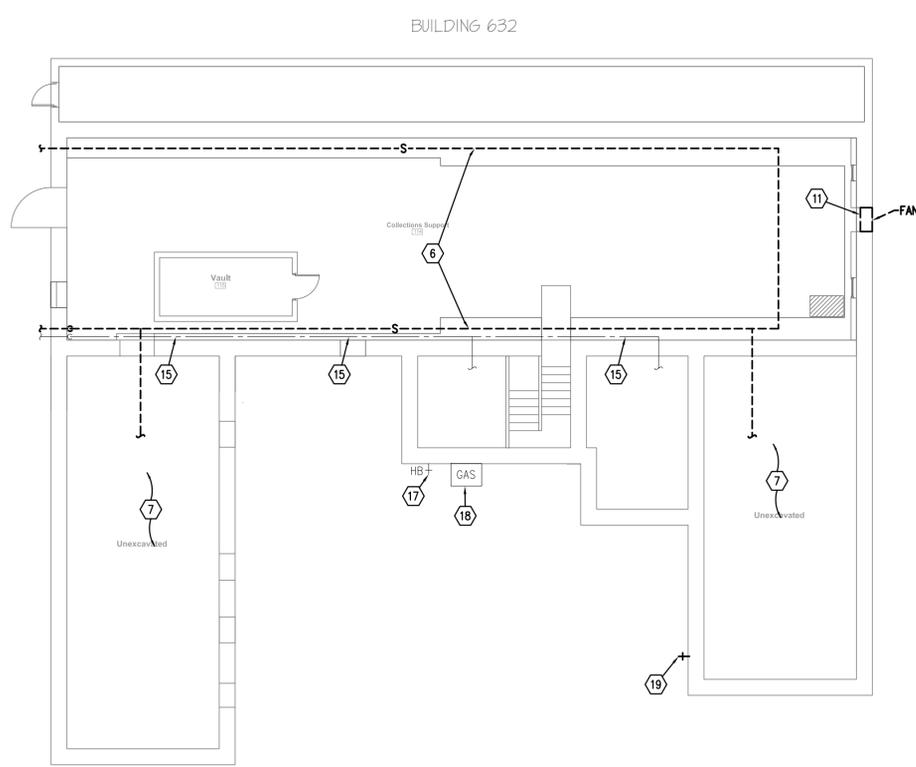
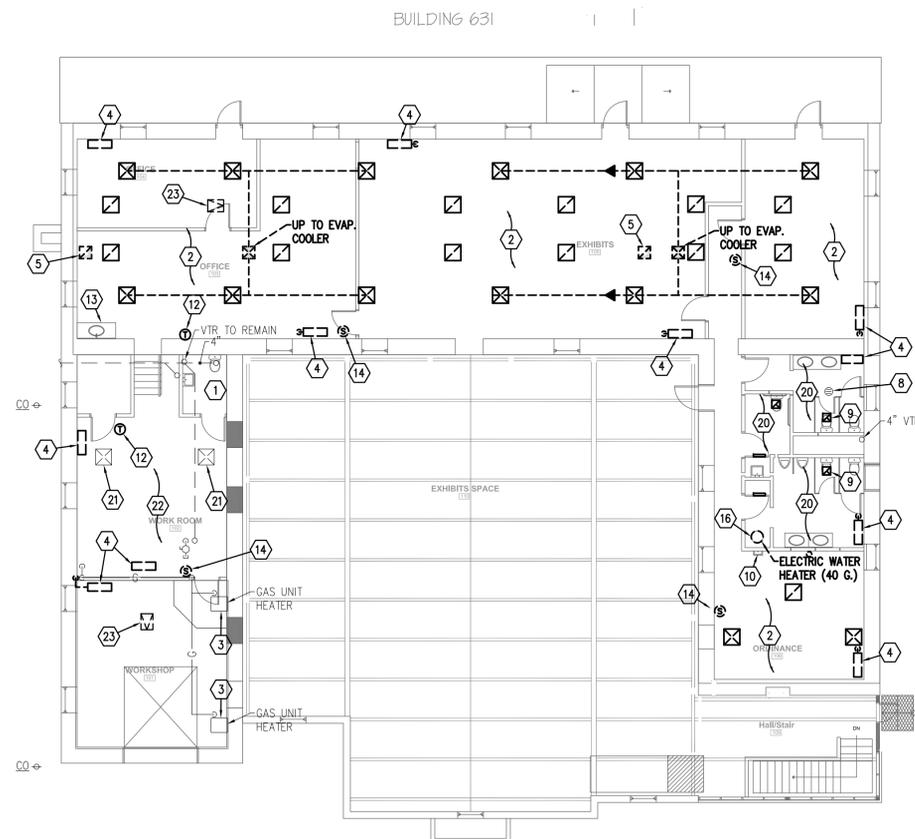
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**MAIN LEVEL
MECHANICAL
DEMOLITION PLAN**

MD102

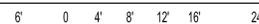


KEYED NOTES

- 1 ALL PLUMBING FIXTURES, ASSOCIATED PIPING & EQUIPMENT TO REMAIN.
- 2 REMOVE ALL DUCTWORK, GRILLES & DIFFUSERS IN THIS AREA. SALVAGE SUPPLY DIFFUSER AND RETURN AIR GRILLES TO BE USED IN NEW CONSTRUCTION. CLEAN AND PROTECT.
- 3 NATURAL GAS RADIANT HEATERS & ALL ASSOCIATED GAS PIPING TO REMAIN.
- 4 REMOVE RADIANT HEATER & ASSOCIATED STEAM PIPING.
- 5 REMOVE DUCTWORK TO RELIEF FANS.
- 6 REMOVE ALL STEAM PIPING IN THIS AREA.
- 7 PIPING IN UNEXCAVATED AREA TO BE ABANDONED IN PLACE. REMOVE FROM WALL AND FLOORS.
- 8 FLOOR DRAIN TO REMAIN.
- 9 REMOVE EXHAUST FANS.
- 10 ELECTRIC WATER COOLER & ALL ASSOCIATED PIPING TO REMAIN.
- 11 REMOVE FAN @ WINDOW.
- 12 REMOVE T-STAT & ALL WIRING.
- 13 SINK & ALL ASSOCIATED PIPING TO REMAIN.
- 14 REMOVE EVAPORATOR COOLER SWITCH & ALL WIRING.
- 15 DOMESTIC COLD WATER LINE TO REMAIN.
- 16 REMOVE WATER HEATER AND ALL ASSOCIATED PIPING.
- 17 HOSE BIBB & PIPING TO REMAIN.
- 18 NATURAL GAS METER & ALL ASSOCIATED GAS PIPING TO REMAIN.
- 19 PIPING TO REMAIN.
- 20 REMOVE ALL PLUMBING FIXTURES AND ALL ASSOCIATED ABOVE GROUND PIPING. PRESERVE UNDERGROUND PIPING FOR NEW CONSTRUCTION CONNECTION.
- 21 SUPPLY DIFFUSERS TO REMAIN IN CEILING.
- 22 REMOVE DUCTWORK IN THIS AREA.
- 23 ATTIC ACCESS PANEL.

1 MAIN LEVEL MECHANICAL DEMOLITION PLAN

SCALE: 3/32" = 1'-0"



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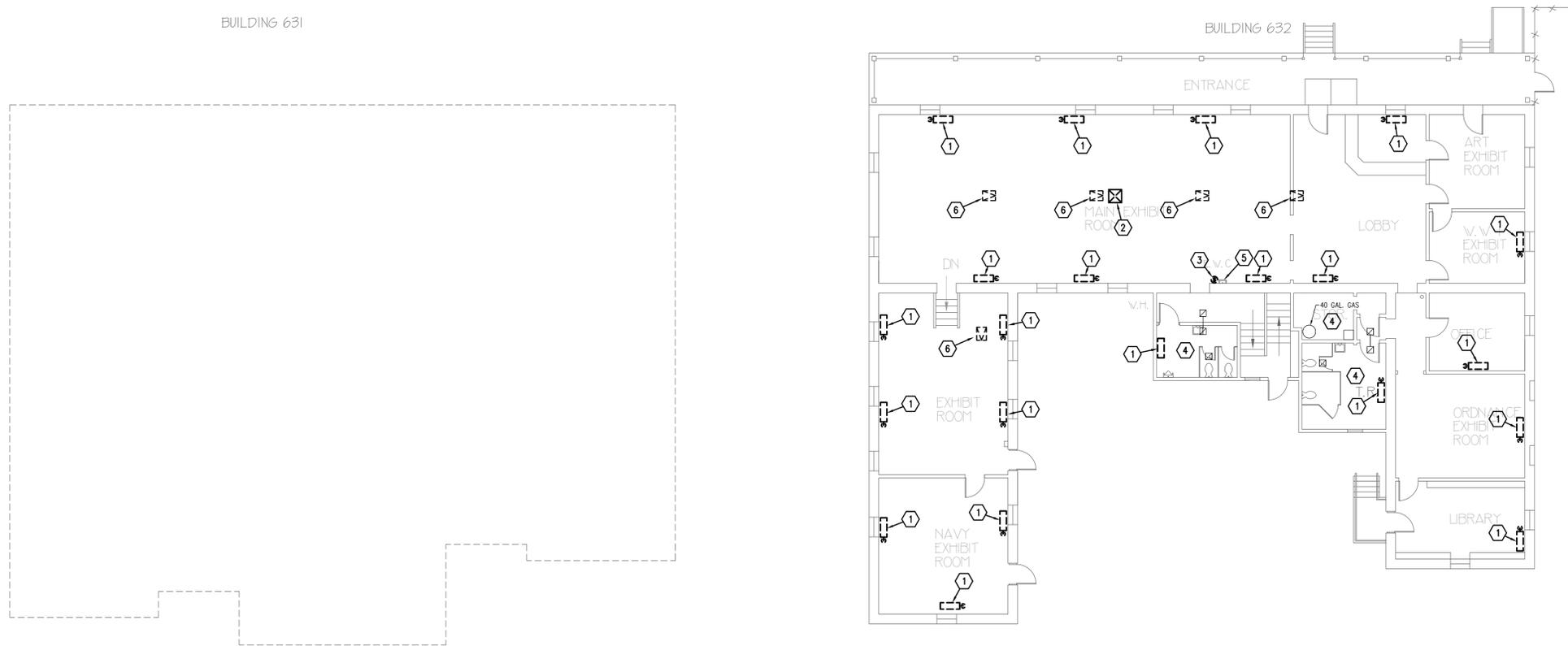
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**UPPER LEVEL
MECHANICAL
DEMOLITION PLAN**

MD103



- KEYED NOTES**
- 1 REMOVE RADIANT HEATER & ALL ASSOCIATED STEAM PIPING.
 - 2 REMOVE EVAP. COOLER DUCTWORK & GRILLE.
 - 3 REMOVE EVAP. COOLER SWITCH & ALL WIRING.
 - 4 MECHANICAL AND PLUMBING IN THIS AREA TO REMAIN.
 - 5 ELECTRIC WATER COOLER TO REMAIN.

1 UPPER LEVEL MECHANICAL DEMOLITION PLAN
SCALE: 3/32" = 1'-0"
6' 0' 4' 8' 12' 16' 24'

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**DEMOLITION
ROOF PLAN**

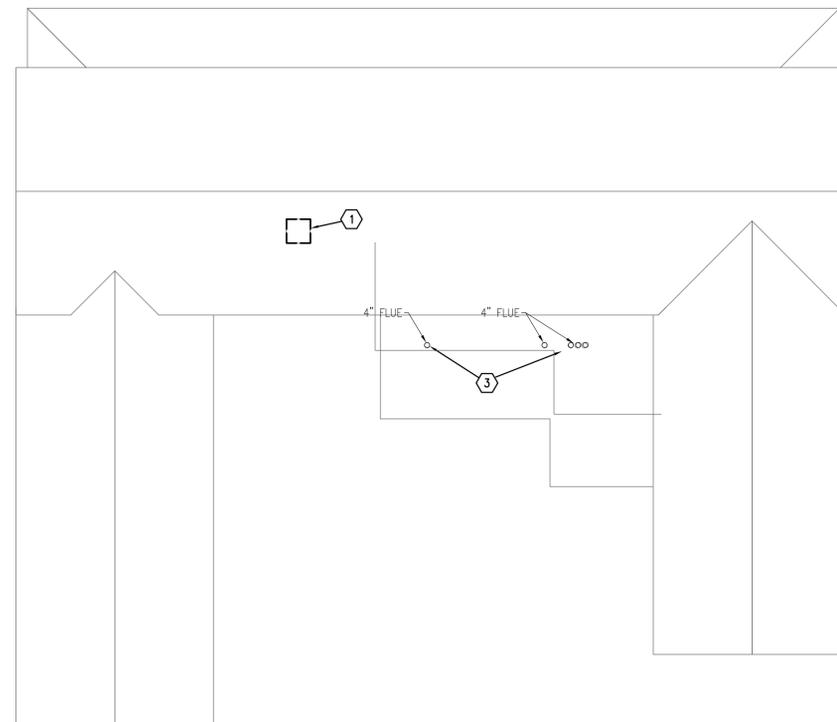
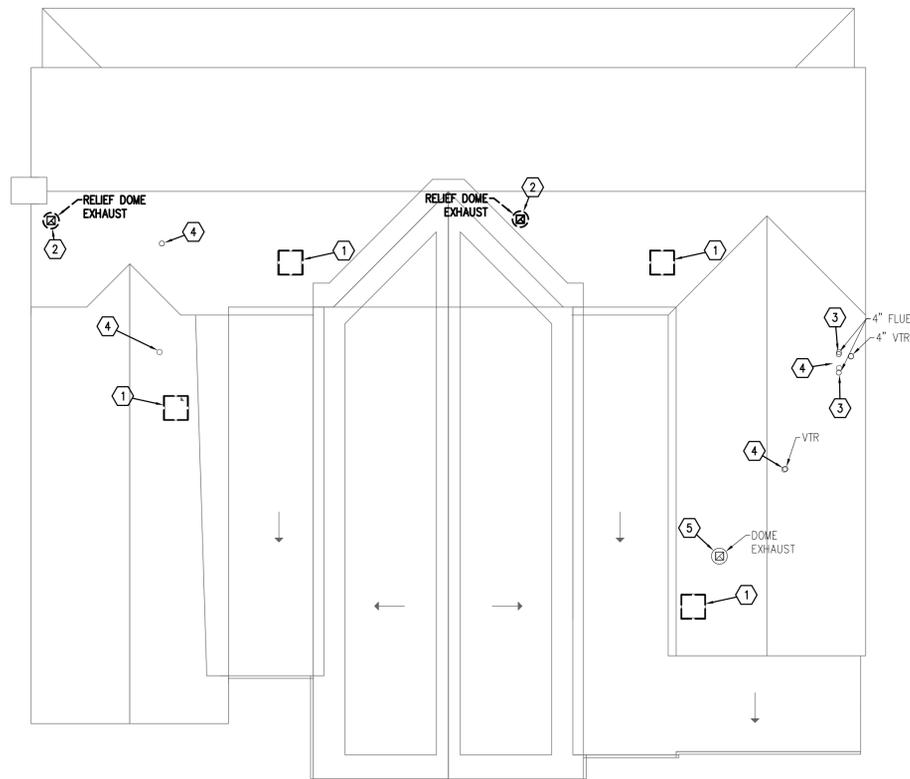
MD104

BUILDING 631

BUILDING 632

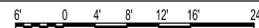
KEYED NOTES

- ① REMOVE EVAPORATOR COOLER, CONTROLS & WATER SUPPLY. CAP ROOF CURB.
- ② REMOVE RELIEF FAN. CAP ROOF CURB.
- ③ FLUES TO REMAIN.
- ④ PLUMBING VENT TO REMAIN.
- ⑤ EXHAUST FAN TO REMAIN.



1 DEMOLITION ROOF PLAN

SCALE: 3/32" = 1'-0"



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**LOWER LEVEL
MECHANICAL PLAN**

MH101

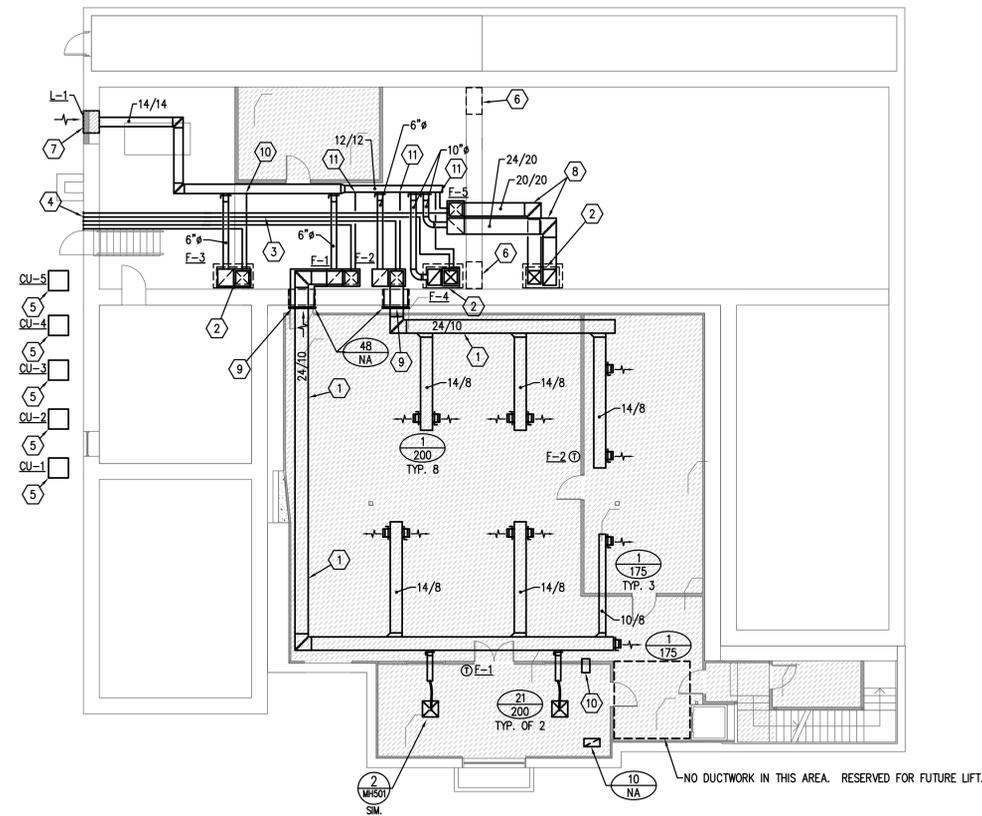
KEYED NOTES

- ① HOLD DUCTWORK TIGHT TO BOTTOM OF CEILING & CLOSE TO WALL.
- ② 20/20 SA UP AND 24/20 RA UP.
- ③ ROUTE FLUE PIPING FROM FURNACE UNITS AS REQUIRED PER MANUFACTURER.
- ④ TERMINATE FLUE FROM FURNACE UNITS THROUGH WALL AS HIGH AS POSSIBLE PER MANUFACTURERS RECOMMENDATIONS.
- ⑤ PROVIDE CONCRETE PAD UNDER CONDENSING UNITS.
- ⑥ EXISTING OPENINGS IN BASEMENT WALL.
- ⑦ OUTSIDE AIR INTAKE LOUVER. PROVIDE INSULATED ALUMINUM WALL TO FILL IN REMAINDER OF OPENING AREA.
- ⑧ ROUTE DUCTWORK IN CRAWL SPACE.
- ⑨ 24"x10" SUPPLY AND 32"x14" RETURN DUCT THROUGH EXISTING OPENINGS IN WALL. RETURN AIR GRILLE TO BE INSTALLED BELOW SUPPLY DUCTWORK.
- ⑩ 12"x12" TRANSFER AIR DUCT.
- ⑪ CONNECT COMBUSTION AIR FOR FURNACE UNITS TO OUTSIDE AIR DUCT.

GENERAL NOTES

- A REFER TO ARCHITECTURAL DRAWINGS FOR ROOM NAMES.
- B EXISTING SMOKE DETECTORS TO REMAIN. ALL SUPPLY DIFFUSERS TO BE INSTALLED MINIMUM OF 3' FROM SMOKE DETECTORS.
- C PROVIDE ALL TRANSITIONS FROM SUPPLY AND RETURN DUCTWORK TO FURNACE SUPPLY AND RETURN OPENINGS.

BUILDING 631



1 LOWER LEVEL MECHANICAL PLAN

SCALE: 3/32" = 1'-0"



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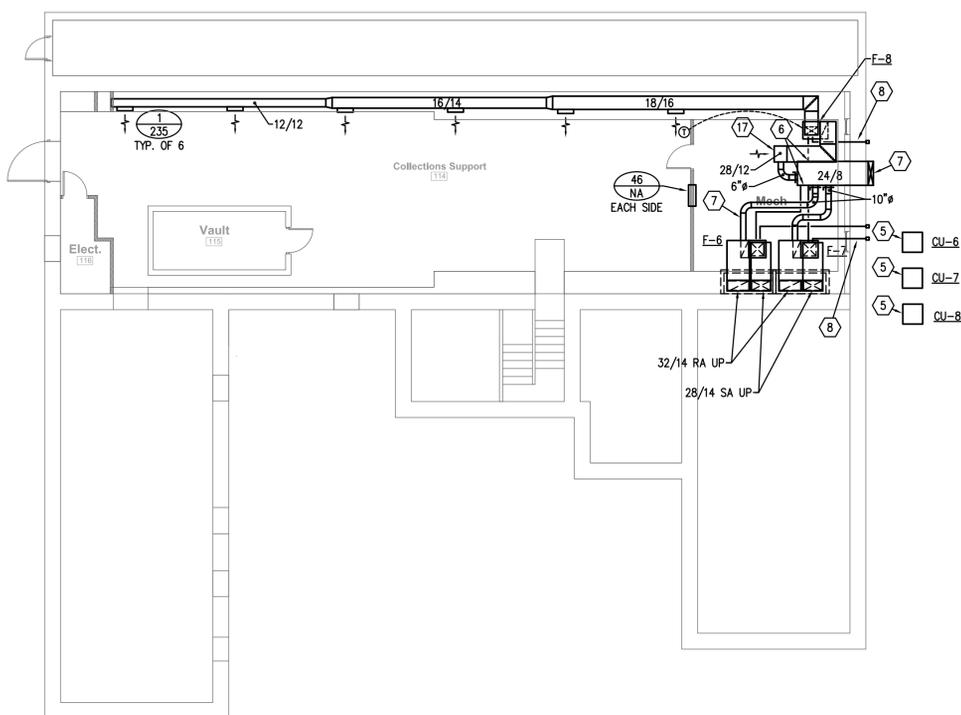
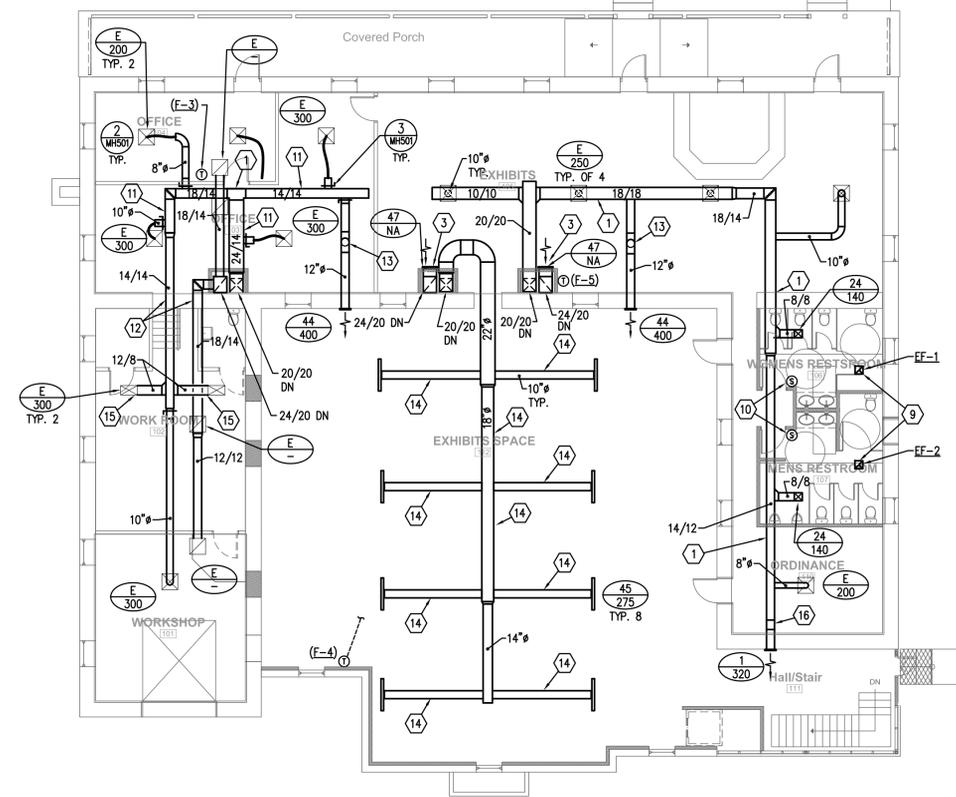
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MAIN LEVEL
MECHANICAL PLAN

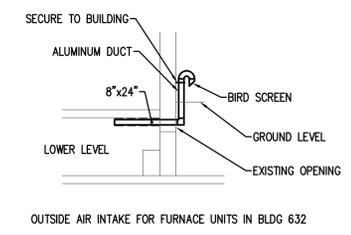
MH102

BUILDING 631

BUILDING 632



1 MAIN LEVEL MECHANICAL PLAN
SCALE: 3/32" = 1'-0"
6" 0 4 8 12 16 24"



KEYED NOTES

- 1 ROUTE DUCT IN ATTIC SPACE.
- 2 RETURN AIR GRILLE.
- 3 INSTALL RETURN AIR GRILLE 12" A.F.F..
- 4 CAP FOR FUTURE CONNECTION.
- 5 PROVIDE CONCRETE PAD UNDER CONDENSING UNITS.
- 6 CONNECT COMBUSTION AIR FOR FURNACE UNITS TO OUTSIDE AIR DUCT.
- 7 24"x8" ALUMINUM DUCT UP FOR OUTSIDE AIR. TERMINATE WITH GOOSENECK AT 24" ABOVE GRADE. PROVIDE BIRD SCREEN AT TERMINATION. SEE SECTION THIS SHEET.
- 8 ROUTE COMBUSTION AIR AND FLUE PIPING AND TERMINATE OUTSIDE PER MANUFACTURERS RECOMMENDATIONS.
- 9 CONNECT NEW EXHAUST FAN TO EXISTING DUCTWORK THROUGH ROOF.
- 10 EXHAUST FAN TIMER SWITCH.
- 11 ROUTE DUCTWORK BETWEEN LAYIN CEILING AND GYPBOARD CEILING.
- 12 DUCTWORK FROM THIS POINT WILL BE ROUTED IN ATTIC SPACE.
- 13 ROUTE DUCT UP THROUGH ROOF AND TERMINATE SUPPLY AT DIFFUSER ABOVE EXISTING ROOF LINE.
- 14 ROUTE DUCT IN JOIST SPACE.
- 15 CONNECT NEW DUCTWORK TO EXISTING DIFFUSERS.
- 16 OFFSET DUCTWORK AS REQUIRED TO INSTALL DIFFUSER BELOW EXISTING DOOR FRAME.
- 17 LEAVE END OF DUCT OPEN FOR RETURN AIR.

GENERAL NOTES

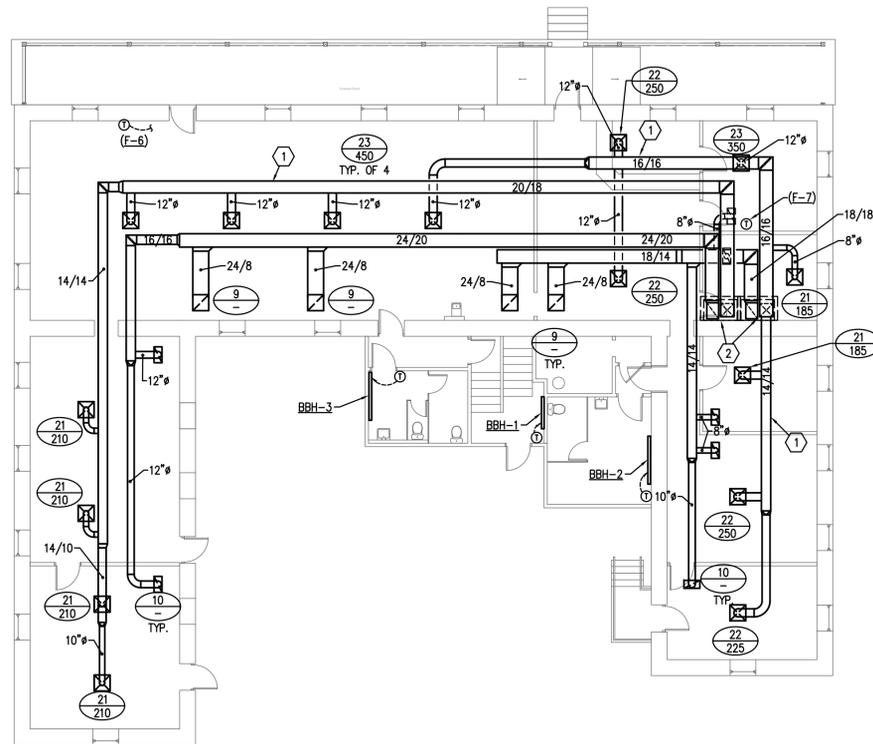
- A REFER TO ARCHITECTURAL DRAWINGS FOR ROOM NAMES.
- B EXISTING SMOKE DETECTORS TO REMAIN. ALL SUPPLY DIFFUSERS TO BE INSTALLED MINIMUM OF 3' FROM SMOKE DETECTORS.

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BUILDING 631



BUILDING 632

KEYED NOTES

- ① ROUTE DUCT IN ATTIC SPACE.
- ② 28"x14" SUPPLY DUCT AND 32"x14" RETURN AIR DUCT FROM BELOW.

GENERAL NOTES

- Ⓐ REFER TO ARCHITECTURAL DRAWINGS FOR ROOM NAMES.
- Ⓑ EXISTING SMOKE DETECTORS TO REMAIN. ALL SUPPLY DIFFUSERS TO BE INSTALL MINIMUM OF 3' FROM SMOKE DETECTORS.

1 MAIN LEVEL MECHANICAL PLAN
SCALE: 3/32" = 1'-0"



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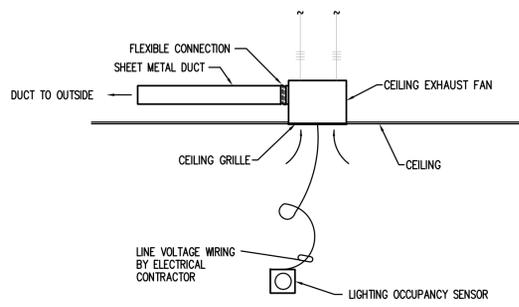
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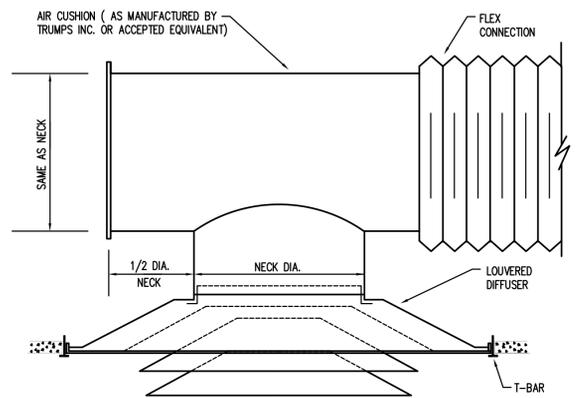
**UPPER LEVEL
MECHANICAL PLAN**

MH103

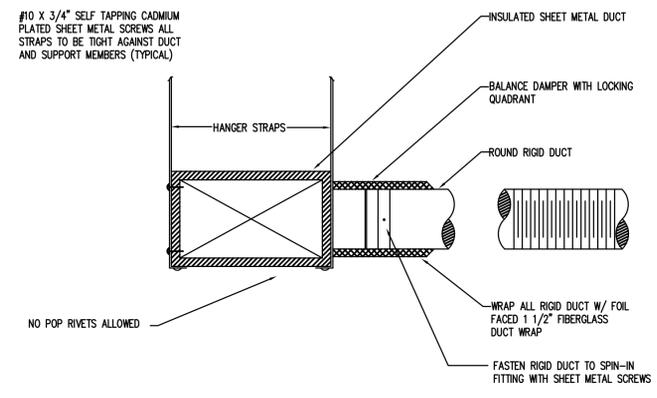
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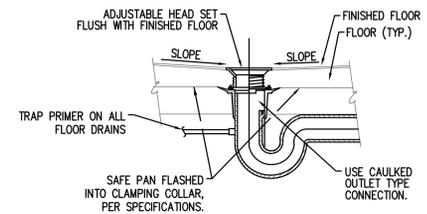
1 EXHAUST FAN DETAIL
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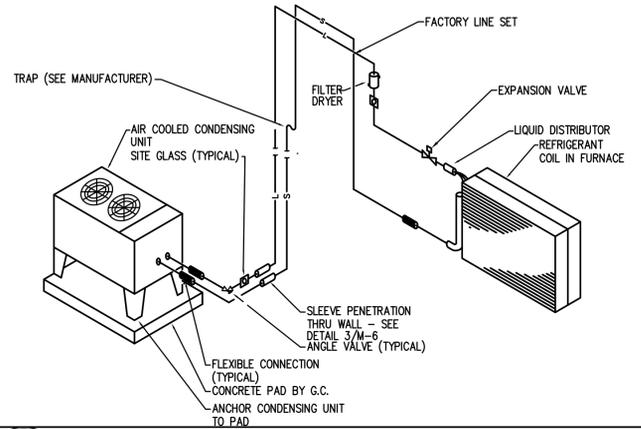
2 DIFFUSER AIR CUSHION DETAIL
NO SCALE



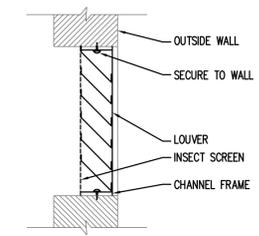
3 FLEX DUCT/SPIN-IN FITTING DETAIL
NO SCALE



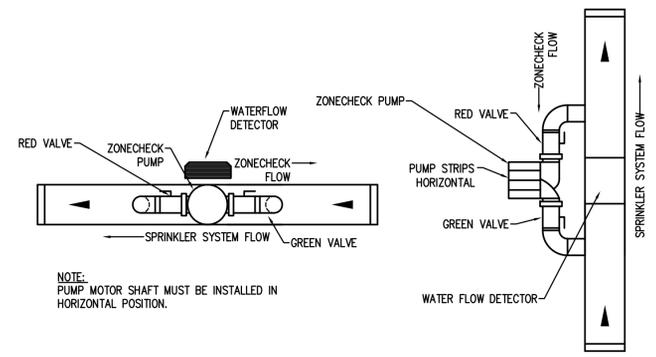
4 TYPICAL FLOOR DRAIN DETAIL
NO SCALE



5 REFRIGERANT COIL CONNECTION DETAIL
NO SCALE



6 LOUVER DETAIL
NO SCALE



7 FIRE SERVICE ZONE CHECK PUMP INSTALLATION SCHEMATIC
NO SCALE



8 NO SCALE



9 NO SCALE

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**MECHANICAL
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MH501



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MECHANICAL
SCHEDULES

MH601

PLAN CODE	AFUE	MIN. OUTDOOR CFM	INPUT (MBH)	OUTPUT (MBH)	CFM AT ALTITUDE	EXT. SP. IN W.G.	MOTOR		FAN SPEED	MANUFACTURER & MODEL NO.	REMARKS
							WATTS	V/P/Hz			
F-1	92.1	60	88	82	1400	1.2	750	120/1	HIGH ④	LENNOX GS1MP-36C-90	②③ ⑦⑧
F-2	92.1	60	88	82	1400	1.2	750	120/1	HIGH ④	LENNOX GS1MP-36C-90	②③ ⑦⑧
F-3	92.1	80	132	123	2200	1.2	1195	120/1	HIGH ④	LENNOX GS1MP-60D-135	③ ⑤⑥⑦ ⑨
F-4	92.1	300	132	123	2200	1.2	1195	120/1	HIGH ④	LENNOX GS1MP-60D-135	③ ⑤⑥⑦ ⑨
F-5	92.1	200	132	123	2200	1.2	1195	120/1	HIGH ④	LENNOX GS1MP-60D-135	③ ⑤⑥⑦ ⑨
F-6	92.1	300	132	123	2200	1.2	1195	120/1	HIGH ④	LENNOX GS1MP-60D-135	③ ⑤⑥⑦ ⑨
F-7	92.1	300	132	123	2200	1.2	1195	120/1	HIGH ④	LENNOX GS1MP-60D-135	③ ⑤⑥⑦ ⑨
F-8	92.1	60	88	82	1400	1.2	750	120/1	HIGH ④	LENNOX GS1MP-36C-90	②③ ⑦⑧

- ① AT SEA LEVEL
- ② INTAKE AND EXHAUST = 2"
- ③ PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT
- ④ PROVIDE HIGH STATIC FAN
- ⑤ PROVIDE SMOKE DETECTOR MOUNTED IN RETURN AIR DUCT TO DEENERGIZE UNIT UPON DETECTION OF SMOKE.
- ⑥ INTAKE AND EXHAUST = 3"
- ⑦ PROVIDE CONCENTRIC VENT KIT
- ⑧ FILTER KIT# 87L97-20" X 25" X 1"
- ⑨ FILTER KIT# 87L98-25" X 25" X 1"

PLAN CODE	CAPACITY (2)	CONDITIONS ENT. EVAP		CFM	MAX PR IN WG	MANUFACTURER & MODEL NO.
		DB DEG. F	WB DEG. F			
CC-1	36	82	62	1400	0.32 ③	LENNOX C33-48C-2F
CC-2	36	82	62	1400	0.32 ③	LENNOX C33-48C-2F
CC-3	60	82	62	2200	0.37 ③	LENNOX C33-62D-2F
CC-4	60	82	62	2200	0.37 ③	LENNOX C33-62D-2F
CC-5	60	82	62	2200	0.37 ③	LENNOX C33-62D-2F
CC-6	60	82	62	2200	0.37 ③	LENNOX C33-62D-2F
CC-7	60	82	62	2200	0.37 ③	LENNOX C33-62D-2F
CC-8	36	82	62	1400	0.32 ③	LENNOX C33-48C-2F

- ① PROVIDE WITH FACTORY COIL BOX AND COIL.
- ② SEA LEVEL RATING, NOMINAL
- ③ WET COIL.

PLAN CODE	TONS	MCA	MOCP	ELECTRICAL			MANUFACTURER & MODEL NO.
				PH	VOLTS	HERTZ	
CU-1	3	14	20	3	208	60	LENNOX HS29-036-2Y
CU-2	3	14	20	3	208	60	LENNOX HS29-036-2Y
CU-3	5	23.5	40	3	208	60	LENNOX HS29-062-2Y
CU-4	5	23.5	40	3	208	60	LENNOX HS29-062-2Y
CU-5	5	23.5	40	3	208	60	LENNOX HS29-062-2Y
CU-6	5	23.5	40	3	208	60	LENNOX HS29-062-2Y
CU-7	5	23.5	40	3	208	60	LENNOX HS29-062-2Y
CU-8	3	14	20	3	208	60	LENNOX HS29-036-2Y

- ① REFRIGERANT R-22.
- ② 95 DEG. F OUTDOOR TEMPERATURE TO CONDENSER.
- ③ PROVIDE WITH LOW AMBIENT KIT.
- ④ PROVIDE VIBRATION ISOLATION PADS UNDER EACH CORNER OF UNIT. ANCHOR UNIT TO PAD SECURELY.

PLAN CODE	BTUH OUTPUT	WATTS	LENGTH	VOLTAGE & PHASE	THERMOSTAT LOCATION	MANUFACTURER & MODEL NO.	REMARKS
BBH-1	3400	1000	4'	120/1	WALL OR INTERGRAL	QMARK QMCK2514W	-
BBH-2	5100	1500	6'	120/1	WALL OR INTERGRAL	QMARK QMCK2516W	-
BBH-3	5100	1500	6'	120/1	WALL OR INTERGRAL	QMARK QMCK2516W	-

PLAN CODE	AREA SERVED	CFM	VELOCITY FPM	FREE AREA SQ. FT.	MAX. DIMENSIONS (W x H) (IN)	MANUFACTURER & MODEL NO.
L-1	F-1, F-2, F-3, F-4, F-5	700	479	1.46	24" x 24"	RUSKIN ELF81DD

PLAN CODE	AREA SERVED	TYPE	OUTPUT (KW)	TEMP RISE (F)	MAX. DIMENSIONS				AMPS	MANUFACTURER & MODEL NO.	REMARKS
					LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	VOLT & PHASE			
EWH-1	WOMENS RR	ON DEMAND TANKLESS	4.1	56	7	3	9	208/1	19.7	EEMAX SP4208	MOUNT UNDER COUNTER
EWH-2	MENS RR	ON DEMAND TANKLESS	4.1	56	7	3	9	208/1	19.7	EEMAX SP4208	MOUNT UNDER COUNTER

PLAN CODE	FLOW (GPM)	HEAD (FT)	PUMP		MOTOR		REMARKS
			CONFIGURATION	MAKE/MODEL	VOLT/PHASE	SIZE (HP)	
SP-1	10	20	SIMPLEX SUBMERSIBLE	GRUNDFOS KP250	120/1	NA	PROVIDE PUMP WITH 25' POWER CORD
SP-2	25	15	SIMPLEX ABOVE GROUND	LITTLE GIANT VCMA-20UL	120/1	NA	PROVIDE PUMP WITH 25' POWER CORD

PLAN CODE	DESCRIPTION	ROUGH-IN SIZE					COMMENTS
		C.W.	H.W.	TEMPERED	WASTE	VENT	
WC-1	WATER CLOSET, ADA COMPLIANT, FLOOR MOUNT, FLUSH TANK, ELONGATED BOWL, VITREOUS CHINA 1.6 GPF	1/2"	-	-	3"	2"	AMERICAN STANDARD "CADET" 2998.012 SEAT: OLSONITE #10CC/SS COLOR: WHITE FLOOR TO RIM: 17"
WC-2	WATER CLOSET, STANDARD FLOOR MOUNT, FLUSH TANK, ELONGATED BOWL, VITREOUS CHINA 1.6 GPF	1/2"	-	-	3"	2"	AMERICAN STANDARD "CADET" 2898.012 SEAT: OLSONITE #10CC/SS COLOR: WHITE FLOOR TO RIM: 15"
U-1	URINAL, ADA COMPLIANT, VITREOUS CHINA, SIPHON JET, MANUAL FLUSH VALVE, 1.0 GPF	3/4"	-	-	2"	1 1/2"	AMERICAN STANDARD "WASHBROOK" 6501.010 FLUSH VALVE: ZURN Z-6003AV-WS1 COLOR: WHITE FLOOR TO RIM: 17"
U-2	URINAL, STANDARD, VITREOUS CHINA, SIPHON JET, MANUAL FLUSH VALVE, 1.0 GPF	3/4"	-	-	2"	1 1/2"	AMERICAN STANDARD "WASHBROOK" 6501.010 FLUSH VALVE: ZURN Z-6003AV-WS1 COLOR: WHITE FLOOR TO RIM: 24"
L-1	OVAL, VITREOUS CHINA, COUNTERTOP MOUNTED LAVATORY, BATTERY POWERED PHOTO EYE FAUCET, GRID DRAIN, 0.5 GPM FLOW	-	-	1/2"	1 1/2"	1 1/2"	AMERICAN STANDARD "AQUALYN" 0475.047 FAUCET: ZURN 6912-F

PLAN CODE	AREA SERVED	TYPE	CFM @ ELEV.	ESP (Ø ELEV.)	FAN RPM	MOTOR				SONES	DAMPER (GRAVITY OR MOTOR)	METHOD OF CONTROL	OPENING SIZE	MAX. OPERATING WT. (LBS.)	MANUFACTURER MODEL	REMARKS
						B.H.P.	H.P.	EFFICIENCY %	VOLTAGE & PHASE							
EF-1	WOMENS RESTROOM	CEILING	300	.4	1205	117W	.062	41	120/1	4.7	GRAVITY	WALL TIMER SWITCH	8" x 6"	35	COOK GC-520	-
EF-2	MENS RESTROOM	CEILING	300	.4	1205	117W	.062	41	120/1	4.7	GRAVITY	WALL TIMER SWITCH	8" x 6"	35	COOK GC-520	-

PLAN CODE	TYPE & DUTY	FACE SIZE	NECK SIZE	CEILING TYPE	MAX. CFM	MAX. T.P. (IN. W.C.)	N.C. LEVEL MAX	MIN. THROW (FT) (T50)	4-WAY MIN. THROW (T50)	2-WAY MIN. THROW (T50)	MANUFACTURER & MODEL NO.	REMARKS
1	SIDEWALL SUPPLY	18" x 6"	20" x 8"	NA	315	0.016	15	12	-	-	TITUS 300RS	WITH OBD
9	PERFORATED RETURN	24" x 24"	22" x 22"	MATCH CEILING	1200	0.05	17	-	-	-	TITUS PXP	WITH OBD
10	PERFORATED RETURN	24" x 12"	22" x 10"	MATCH CEILING	600	0.06	10	-	-	-	TITUS PXP	WITH OBD
21	SQUARE DIFFUSER	24" x 24"	8"	SURFACE	240	0.08	21	12	-	-	TITUS TDC	WITH OBD
22	SQUARE DIFFUSER	24" x 24"	10"	SURFACE	320	0.92	21	13	-	-	TITUS TDC	WITH OBD
23	SQUARE DIFFUSER	24" x 24"	12"	SURFACE	450	0.14	25	15	-	-	TITUS TDC	WITH OBD
24	SQUARE DIFFUSER	12" x 12"	6" x 6"	SURFACE	160	0.169	23	11	-	-	TITUS TDC	WITH OBD
44	SIDE WALL DIFFUSER	14" x 14"	12" x 12"	NA	440	0.10	16	18	-	-	TITUS 300 RL	WITH OBD, HORIZONTAL BLADES
45	LINEAR SLOT DIFFUSER	5'	10"	SURFACE	320	0.051	25	16	-	-	TITUS ML39	WITH OBD WITH SUPPLY AIR PLENUM
46	SIDE WALL RETURN	44/14	42/12	NA	1930	0.09	33	-	-	-	TITUS 25RFL	-
47	SIDE WALL RETURN	22/38	20/36	NA	2355	0.06	27	-	-	-	TITUS 25RFS	-
48	SIDE WALL RETURN	32/16	30/14	NA	1600	0.09	34	-	-	-	TITUS 300FL	-

NOTE: VERIFY FRAME TYPE OF ALL AIR DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN BEFORE ORDERING.

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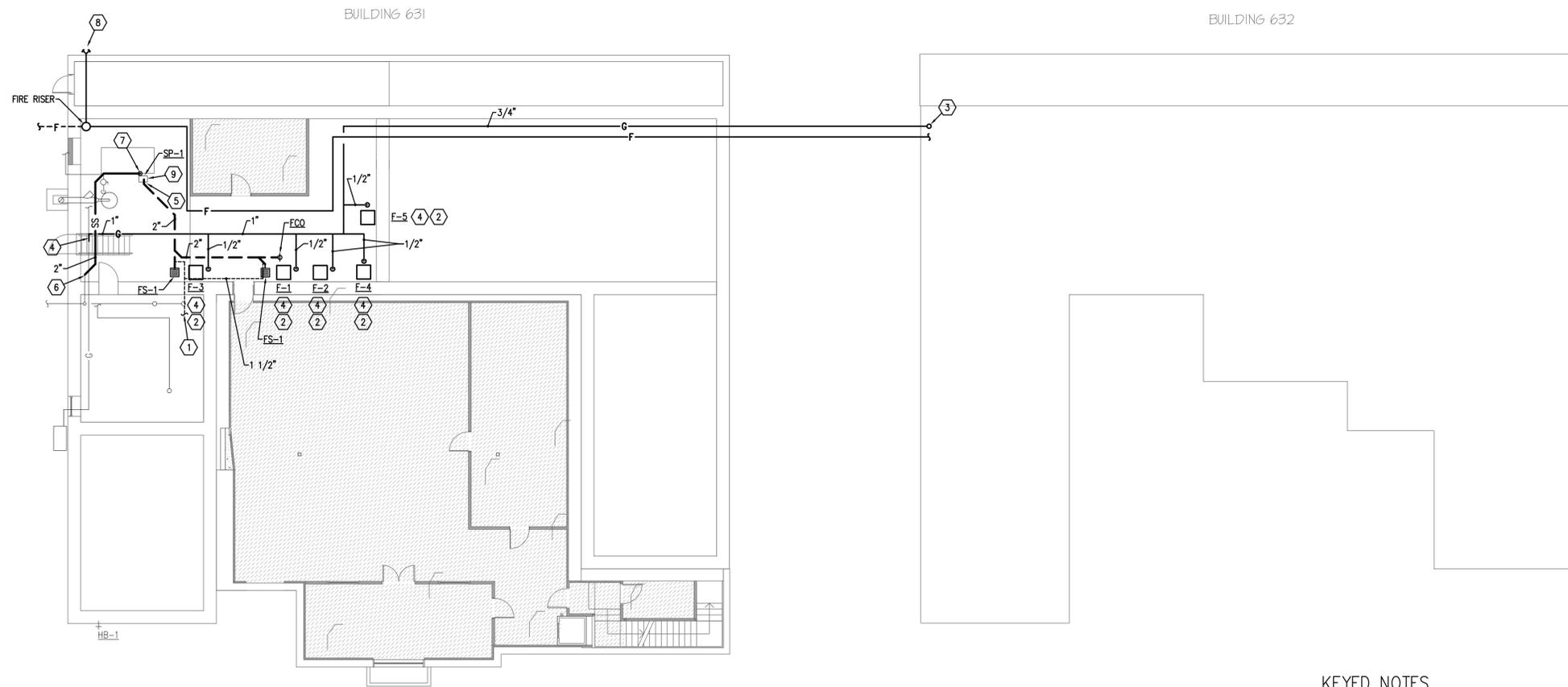
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**LOWER LEVEL
PLUMBING PLAN**

PL101



1 LOWER LEVEL PLUMBING PLAN

SCALE: 3/32" = 1'-0"



KEYED NOTES

- 1 CONNECT NEW VENT TO EXISTING VENT RISER IN TOILET ROOM ABOVE.
- 2 ROUTE CONDENSATE DRAIN FROM FURNACE UNITS TO FLOOR SINK.
- 3 SEE PL102 FOR CONTINUATION.
- 4 CONNECT NEW NATURAL GAS PIPING TO EXISTING.
- 5 CONNECT NEW WASTE PIPING TO EXISTING SUMP. SEAL AROUND PENETRATION.
- 6 CONNECT PUMPED WASTE PIPING TO EXISTING BUILDING WASTE PIPING.
- 7 RISE PUMPED WASTE TO BELOW STRUCTURE AND GRAVITY DRAIN TO CONNECTION LOCATION.
- 8 FIRE DEPARTMENT CONNECTION. PROTECT PIPE FROM FREEZING.
- 9 PROVIDE PERFORATED STAINLESS STEEL GRATE OVER EXISTING SUMP. 16 GA. MIN. WITH 1" FLANGE BOLTED TO FLOOR.

GENERAL NOTES

- (A) REFER TO ARCHITECTURAL DRAWINGS FOR ROOM NAMES.
- (B) PROVIDE FIRE PROTECTION FOR BUILDING 631 ONLY WITH CAPACITY FOR FUTURE FIRE PROTECTION FOR BUILDING 632.

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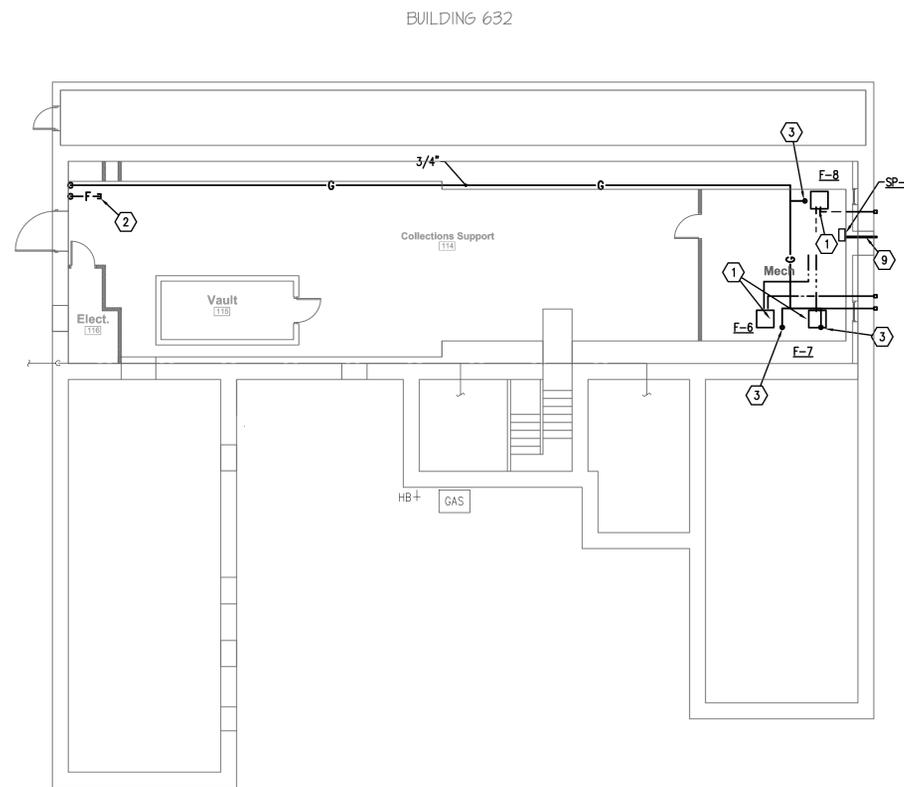
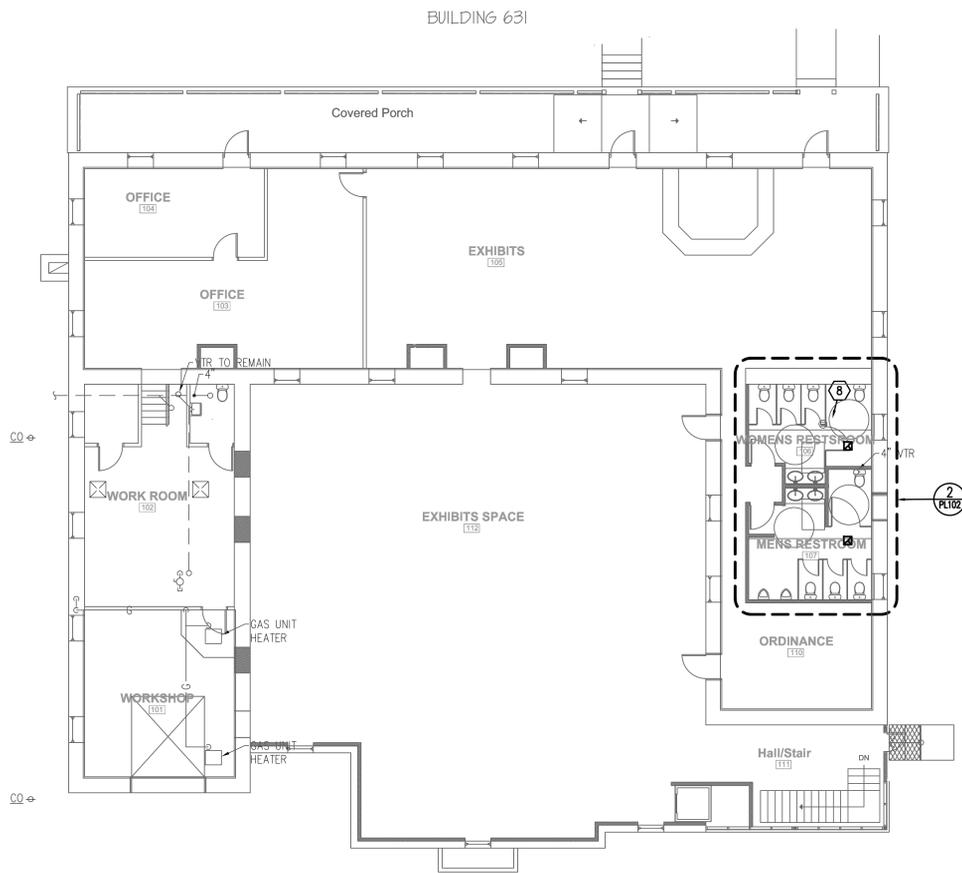
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MAIN LEVEL
PLUMBING PLAN

PL102



KEYED NOTES

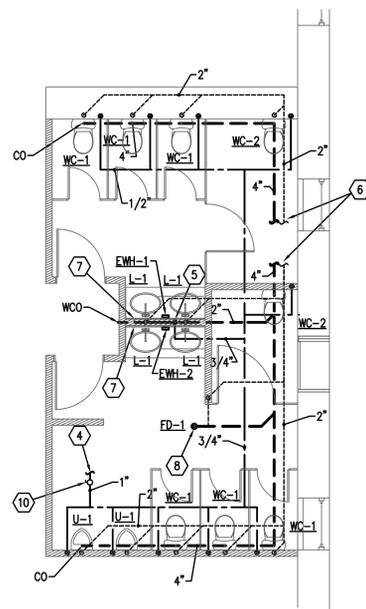
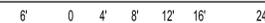
- ① ROUTE CONDENSATE FROM FURNACE TO SUMP PUMP.
- ② CAP FIRE PROTECTION PIPING FOR FUTURE CONNECTION.
- ③ 1/2" NATURAL GAS DOWN AND CONNECT TO FURNACE UNIT.
- ④ CONNECT NEW WATER TO EXISTING WATER SERVICE.
- ⑤ DROP 3/4" COLD WATER DOWN AND CONNECT 1/2" TO LAVATORIES. CONNECT COLD WATER TO WATER HEATER UNDER LAVS AND ROUTE 1/2" HOT WATER TO LAVS.
- ⑥ CONNECT NEW WASTE AND VENT PIPING TO EXISTING UNDERGROUND WASTE AND OVERHEAD VENT PIPING.
- ⑦ PROVIDE HOSE BIBB UNDER LAVATORY COUNTER.
- ⑧ PROVIDE PROSET TRAP GAURD.
- ⑨ PROVIDE 1/2" PUMPED CONDENSATE TO OUTSIDE. TERMINATE IN PLANTER AREA WITH ELBOW DOWN AND BUG SCREEN. TERMINATE MIN. OF 18" ABOVE GRADE.
- ⑩ PROVIDE RESTROOM SHUT OFF VALVE. PROVIDE ACCESS PANEL TO VALVE.

GENERAL NOTES

- A REFER TO ARCHITECTURAL DRAWINGS FOR ROOM NAMES.
- B PROVIDE FIRE PROTECTION FOR BUILDING 631 ONLY WITH CAPACITY FOR FUTURE FIRE PROTECTION FOR BUILDING 632.

1 MAIN LEVEL PLUMBING PLAN

SCALE: 3/32" = 1'-0"



2 ENLARGED RESTROOM PLAN

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

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INDEX OF ELECTRICAL DRAWINGS

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EY101	FIRE ALARM PLAN LOWER LEVEL
EY102	FIRE ALARM PLAN MAIN LEVEL
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EX102	PANEL BOARD SCHEDULES
EX201	ELECTRICAL DIAGRAMS
EX202	ELECTRICAL DIAGRAMS

GENERAL NOTES

- CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
- VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
- CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER DIVISION 15 WITH APPROVED MECHANICAL SHOP DRAWINGS BEFORE BEGINNING ROUGH IN.
- SEE SECTION 16510 OF THE SPECIFICATION REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
- SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
- SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.
- FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
- THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
- ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUDED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
- ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
- CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 165' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH MINIMUM #10 CONDUCTORS.

ELECTRICAL SYMBOL SCHEDULE

1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
 2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISH FLOOR.
 3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
 4. SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
 5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.
 6. HEIGHT TO BE THE LOWER OF EITHER 80" A.F.F. OR 6" BELOW CEILING.
 7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
 8. DOUBLE ARROWS DENOTE A DOUBLE FACE UNIT.
 9. COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
 10. SUBSCRIPT DENOTES NEMA CONFIGURATION.
 11. HEIGHT MEASURED TO BOTTOM OF THE BOX FROM FINISH FLOOR.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS			
SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
—	ONE CIRCUIT, TWO WIRE HOME RUN TO PANEL		
—	2 CIRCUIT, 3 WIRE, COMMON NEUTRAL HOME RUN		
—	3 CIRCUIT, 4 WIRE, COMMON NEUTRAL HOME RUN		
—	CONDUIT RUN CONCEALED IN WALL OR CEILING		
○	PENDANT LIGHT FIXTURE	AS NOTED	1.
○	WALL LIGHT FIXTURE	AS NOTED	1.
○	FLUORESCENT LIGHT FIXTURE	AS NOTED	1
○	FLUORESCENT EGRESS LIGHT FIXTURE	AS NOTED	UNSWITCHED
○	FLOOD OR TRACK FIXTURE	AS NOTED	
⊗	CEILING MOUNTED EXIT LIGHT	CEILING	1.3.8.
⊗	WALL MOUNTED EXIT LIGHT	AS NOTED	1.3.8.
⊗	SINGLE POLE SWITCH	+4'-0"	2.
⊗	LOW VOLTAGE SWITCH	+4'-0"	2.
⊗	OCCUPANCY SENSOR	CEILING	
⊗	POWER PACK	CEILING	SEE DIAGRAM, SPEC.
⊗	DUPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
⊗	FLOOR OUTLET WITH 20A DEVICE	FLOOR	
⊗	MULTIPLE SERVICE FLOOR BOX	FLOOR	
⊗	PHOTO-ELECTRIC CONTROL	AS NOTED	TORK 2000A
⊗	NON-FUSED DISCONNECT SWITCH	+5'-0"	5.
⊗	FUSED DISCONNECT SWITCH	+5'-0"	5.
⊗	MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT	+4'-0"	2.
⊗	PANEL BOARD	TOP AT +6'-0"	
⊗	MAIN DISTRIBUTION PANEL		
⊗	TELEPHONE TERMINAL BOARD		
⊗	FIRE ALARM MANUAL STATION	+4'-0"	2.
⊗	FIRE ALARM SIGNAL HORN/STROBE	+6'-8"	6.
⊗	SMOKE DETECTOR	CEILING	
⊗	DUCT SMOKE DETECTOR		MTD. IN DUCT
⊗	HEAT DETECTOR	CEILING	
⊗	SECURITY SYSTEM DOOR SWITCH	DOOR JAMB	
⊗	SECURITY MOTION DETECTOR		MOUNT AS PER MAN
⊗	ARCHITECTURAL ROOM NUMBER		
⊗	LIGHT FIXTURE (LETTER DESIGNATES TYPE)		
⊗	EQUIPMENT NUMBER		

FIXTURE SCHEDULE

TYPE	DESCRIPTION	CATALOG NUMBER	VOLTS	LAMPS
A	2X4 LAY-IN FLUORESCENT GRID MOUNT, 3-LAMP, FLUSH ALUM DOOR, A12-126 PRISMATIC LENS, 2 BALLASTS, GROG START ELECTRONIC BALLIST	MATALUX 2GCPA-332-A125-120-ER82	120	(3)F032/835 XP8/ECO
BQ	ARCHITECTURAL EMERGENCY BATTERY LIGHT SURFACE OR CEILING MOUNT, WHITE FINISH (EXHIBITS)	LIGHTOLIER EL2-WNIMH	120	INCLUDED
C	CONTINUOUS LINEAR FLUORESCENT PENDANT ASYMETRIC REFLECTOR, PENDANT HUNG FLUORESCENT TUBES TO HAVE UV TUBE GUARDS SEE PLANS FOR EMERGENCY BATTERY SECTIONS TITANIUM FINISH	FOCAL POINT FEV8-PL-278-1C-120-S-C48-EM-TS (SEE PLANS FOR FIXTURE LENGTH)	120	(2) F032/835/XP8/ECO PER 4 FT SECTION
D2	4 FOOT FLUORESCENT, WRAP AROUND ACRYLIC PRISMATIC LENS, SURFACE MOUNTED PROGRAM START ELECTRONIC BALLIST	METALUX 4WB-232-A-120-ER81	120	(2)F032-835 XP8/ECO
D2E	4 FOOT FLUORESCENT, WRAP AROUND ACRYLIC PRISMATIC LENS, SURFACE MOUNTED PROGRAM START ELECTRONIC BALLIST 1400 LUMEN EM BATTERY PACK	MATALUX 2GCPA-332-A125-120-ER81-EM	120	(2)F032-835 XP8/ECO
F	4 FOOT FLUORESCENT WALL BRACKET DIRECT LENS, PROG START ELECTRONIC BALLIST	METALUX BE-232-120-ER81	120	(2)F032-835 XP8/ECO
I4	4 INDUSTRIAL WITH 10% UPLIGHT PROGRAM START ELECTRONIC BALLIST 2 LAMP TS CROSS SECTION	METALUX 4T-DI-2-32-GL-ER81	120	(2) F032/835/XP8/ECO
IE	SAME AS I4 EXCEPT WITH 1400 LUMEN EM BATTERY PACK	METALUX 4T-DI-2-32-GL-ER81-EM	120	(2) F032/835/XP8/ECO
I8	8" INDUSTRIAL WITH 10% UPLIGHT PROGRAM START ELECTRONIC BALLIST 2 LAMP TS CROSS SECTION (STORAGE, MECH.ELECT)	METALUX 8T-DI-2-32-GL-ER81	120	(4) F032/835/XP8/ECO
IE8	SAME AS I8 EXCEPT WITH 1400 LUMEN EM BATTERY PACK (STORAGE, MECH.ELECT)	METALUX 8T-DI-2-32-GL-ER81-EM	120	(4) F032/835/XP8/ECO
SC1	EXTERIOR SCENCE WITH INTEGRAL COLD WEATHER EMERGENCY BATTERY AND PHOTOCCELL (EXTERIOR EXITS)	GARDCO 101EM-F2-228QF-120-SCBA-PCB	120	(2) CF26DT/EN/835
T	SPEC GRADE TRACK, WHITE FINISH 2 CIRCUIT, QUANTITY OF HEADS AS SHOWN ON PLANS 50% OF HEADS TO BE 100 PAR 38 WITH BARN DOORS AND UV FILTER PROVIDE HALF WITH 5 X 50 DEGREE SPREAD LENS PROVIDE HALF WITH 50 X 50 DEGREE SPREAD LENS 50% OF HEADS TO BE 100 PAR 38 WITH UV FILTER, NO BARN DOORS PROVIDE HALF WITH 5 X 50 DEGREE SPREAD LENS PROVIDE HALF WITH 50 X 50 DEGREE SPREAD LENS	CON-TECH LT2 SERIES TRACK WITH ALL PARTS AND ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM PROVIDE STEM SUPPORT KITS AND DOWNEL CANOPIES FOR SUSPENDED TRACK (SEE PLANS) CON-TECH CTL838 WITH B038 BARN DOORS AND LF38-UV FILTER CON-TECH LF38-LS CON-TECH LF38-73 CON-TECH CTL838 AND LF38-LV CON-TECH LF38-LS CON-TECH LF38-73	120	1/2 OF FIXTURES WITH 100HIRPAR38SP10 1/2 OF FIXTURES WITH 100HIRPAR38FL25 1/2 OF FIXTURES WITH 100HIRPAR38SP10 1/2 OF FIXTURES WITH 100HIRPAR38FL25
X1	DIE CAST LED EXIT, GREEN LETTERS SEE PLANS FOR ARROWS AND MOUNTING	LIGHTOLIER DX-1-G-X-SCBA	120	LED INCLUDED
X3	PHOTOLUMINESCENT EXIT SIGN SINGLE FACE, GREEN LETTERS	ACTIVE SAFETY 2002-SXXX	120	N/A

DEMOLITION NOTES

- COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 16.
- RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
- CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
- LEAVE ALL EXISTING EQUIPMENT, IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
- EXISTING RACEWAYS MAY BE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
- REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
- REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
- DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
- DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.

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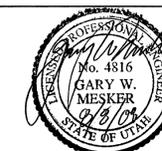
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SYMBOLS,
SCHEDULES
& NOTES

EG101

SHEET OF

SHEET KEYNOTES

- ① CUT AND PATCH AS REQUIRED, FIELD VERIFY EXACT LENGTH BEFORE BIDDING.
- ② PROVIDE NEW UNDERGROUND SERVICE, SEE ONE LINE DIAGRAM SHEET EX101.
- ③ EXISTING TRANSFORMER, TUNNEL UNDER INTO SECONDARY SIDE AS REQUIRED.
- ④ EXISTING UNIVERSITY MANHOLE. PROVIDE NEW 4" CONDUIT FROM MANHOLE TO BUILDING 631. CORE DRILL INTO MANHOLE AS REQUIRED. COORDINATE WITH UNIVERSITY TELECOM, DAVID KOSANKE.
- ⑤ BURY CONDUIT 36" BELOW GRADE. CUT AND PATCH ROADWAY AS REQUIRED.
- ⑥ CUT AND PATCH SIDEWALK OR TUNNEL UNDER SIDEWALK.
- ⑦ CORE THRU FOUNDATION WALL. STUB CONDUIT INTO BASEMENT MECHANICAL ROOM. SEAL CONDUIT PENETRATION.

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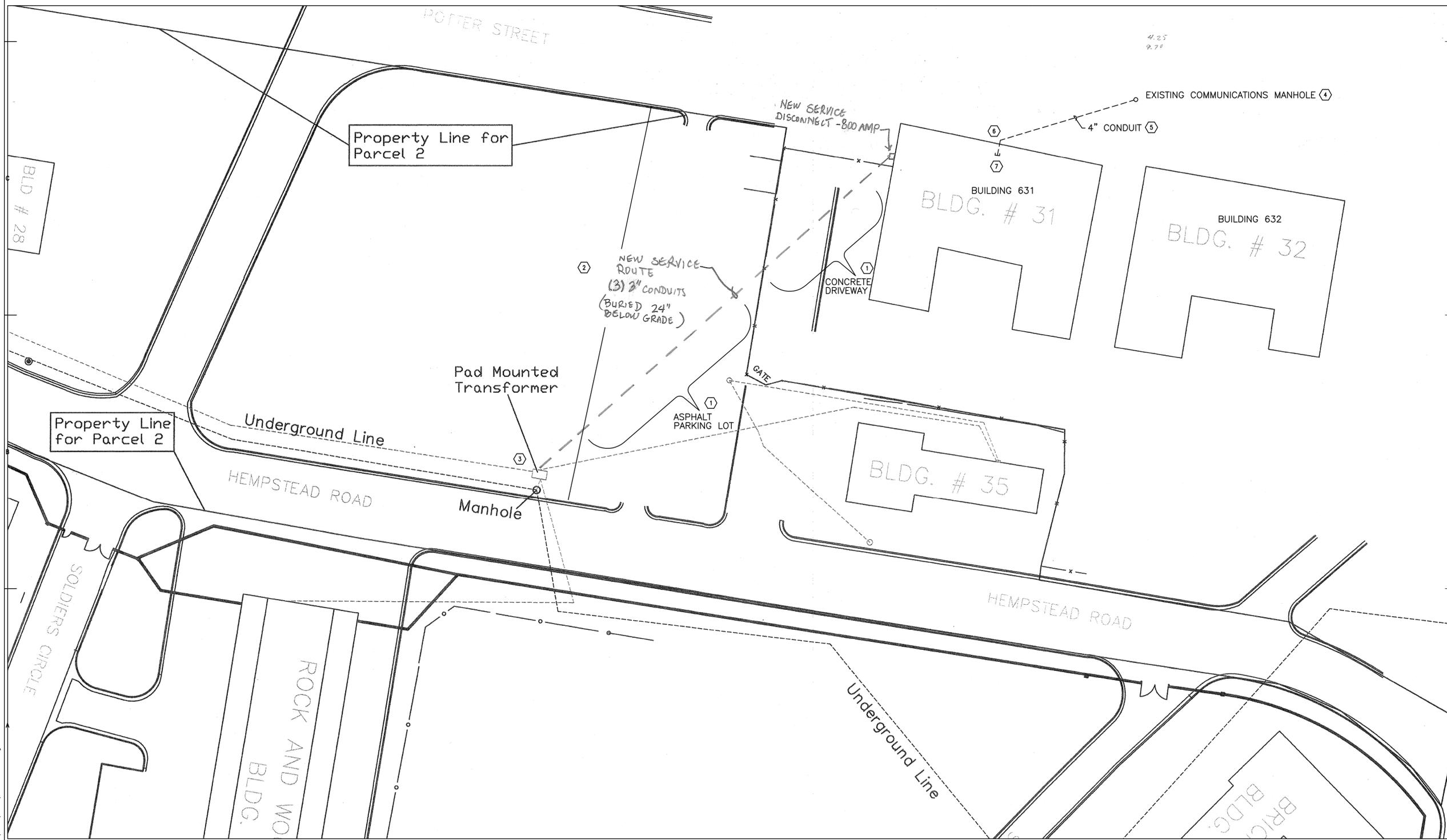
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PROJECT NO: B05-027
BNA PROJ NO: 08155A
DRAWN BY: BNA
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ELECTRICAL
SITE PLAN

ES100

SHEET OF



By: dmp, Aug 08, 2008 - 5:45pm
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GENERAL SHEET NOTES

1. MAINTAIN EXISTING LIGHTING, SWITCHING, AND LIGHTING CIRCUIT IN OPERATION DURING DEMOLITION UNTIL NEW LIGHTING IS IN PLACE.

SHEET KEYNOTES

1. EXISTING LIGHTING TO REMAIN. MAINTAIN POWER, OPERATION AND CIRCUIT CONTINUITY AS REQUIRED.
2. REMOVE EXISTING LIGHT SWITCH.
3. REMOVE EXISTING LIGHT FIXTURE AND LIGHTING SWITCH LEG CONDUIT AND WIRING. EXISTING LIGHTING CIRCUIT FEED TO REMAIN.

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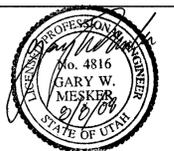


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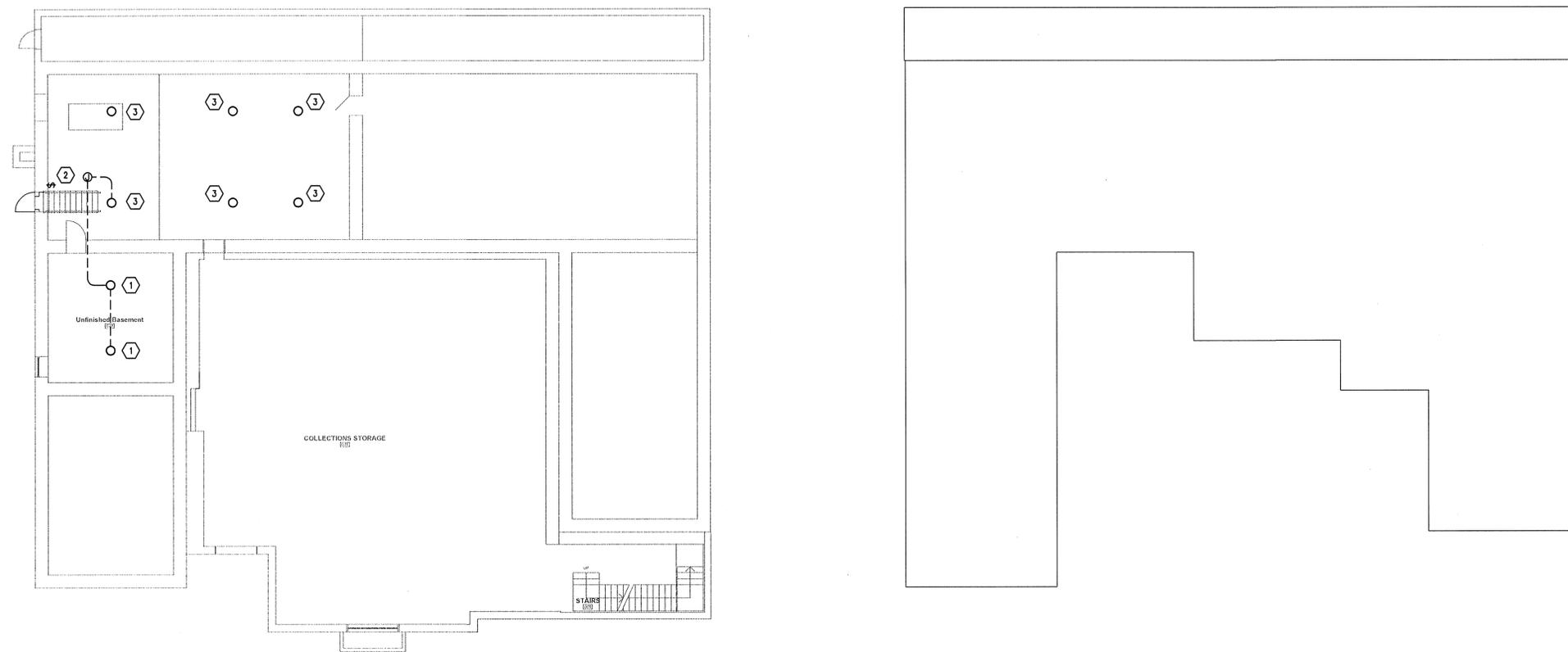
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DEMOLITION PLAN
LOWER LEVEL

ED101

SHEET OF



PLAN NORTH
DEMOLITION PLAN
LOWER LEVEL
3/32" = 1'-0"

GENERAL SHEET NOTES

1. THE EXISTING DROPPED CEILINGS IN EXHIBITS 105, ORDINANCE 108, CONFERENCE ROOM, HALLWAY AND TOILET ROOMS ARE BEING DEMOLISHED, BUT THE ORIGINAL PLASTER CEILING ABOVE IS TO REMAIN AND WILL BECOME THE PERMANENT CEILING AFTER IT IS PATCHED AND PAINTED. THE ELECTRICAL CONTRACTOR SHALL REMOVE ALL EXISTING CONDUITS BELOW THE PLASTER CEILING AND SHALL RE-ROUTE CIRCUITS TO THE ATTIC THAT SERVE AREAS NOT REMODELED, OUTLETS IN PERIMETER WALLS THAT REMAIN, ETC.

SHEET KEYNOTES

- 1 EXISTING LIGHT POLE OVERHEAD FEED TO REMAIN.
- 2 DISCONNECT AND REMOVE EXISTING WINDOW EXHAUST FAN. MAINTAIN EXISTING CIRCUIT IN OPERATION.
- 3 REMOVE EXISTING LIGHTING, SWITCHING AND ASSOCIATED PORTION OF LIGHTING CIRCUIT.
- 4 REMOVE EXISTING RECEPTACLES, OUTLETS IN DEMOLISHED STUD WALLS, AND ASSOCIATED PORTION OF CIRCUIT CONDUIT AND WIRING. MAINTAIN POWER AND RECEPTACLES AND OUTLETS IN PERIMETER WALLS, STONE WALLS, ETC.
- 5 EXISTING ELECTRICAL TO REMAIN, INCLUDING LIGHTS, RECEPTACLES, OUTLETS, TELE/DATA SECURITY DEVICES AND ASSOCIATED CONDUIT AND WIRING. MAINTAIN POWER TO EXISTING.
- 6 REMOVE EXISTING PANEL EP-1 AFTER NEW PANEL 'A' IS INSTALLED AND POWERED UP. INTERCEPT EXISTING CONDUITS/CIRCUITS ABOVE CEILING FOR CIRCUITS THAT ARE TO BE MAINTAINED AND EXTEND INTO THE ATTIC TO A NEW PULLBOX (FOR RE-ROUTING TO PANEL 'A').
- 7 EXISTING PANEL EP-2 TO REMAIN.
- 8 EXISTING TELEPHONE TERMINAL BOARD, TELEPHONE AND DATA EQUIPMENT, AND TELEPHONE/DATA CABLING TO REMAIN.
- 9 EXISTING TELEPHONE COMPANY PEDESTAL. TO REMAIN. MAINTAIN IN SERVICE.
- 10 EXISTING UNDERGROUND TELEPHONE SERVICE CABLE (EXTENDS TO PEDESTAL AT BUILDING 35). MAINTAIN IN SERVICE.
- 11 EXISTING EMPTY 4" CONDUIT STUB-UP.
- 12 EMPTY 4" CONDUIT EXTENDS TO BUILDING 35 (STUBS UP AT BUILDING 35 PEDESTAL).
- 13 EXISTING OVERHEAD POWER SERVICE CABLE. LEAVE IN PLACE UNTIL NEW SERVICE EQUIPMENT IS OPERATIONAL, AND EXISTING PANEL EP-2 IS RE-FED FROM NEW SERVICE.
- 14 REMOVE EXISTING OVERHEAD SERVICE AFTER THE BUILDING POWER IS COMPLETELY TRANSFERRED OVER TO THE NEW SERVICE.
- 15 EXISTING BURIED PIPE WITH TELEPHONE, DATA AND SECURITY SYSTEM CABLES IS TO REMAIN.
- 16 DISCONNECT AND REMOVE POWER TO EXISTING ELECTRIC WATER HEATER.
- 17 REMOVE EXISTING CONDUITS AND WIRING THAT ARE BELOW THE OLD PLASTER CEILING (ABOVE THE LAY-IN CEILING FOR CIRCUITS THAT SERVE OFFICES 103 AND 104 AND PERIMETER WALL OUTLETS, RE-ROUTE THE CIRCUITS TO THE ATTIC SPACE.

COOPER
ROBERTS
SIMONSEN
ARCHITECTURE

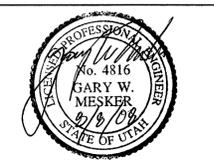


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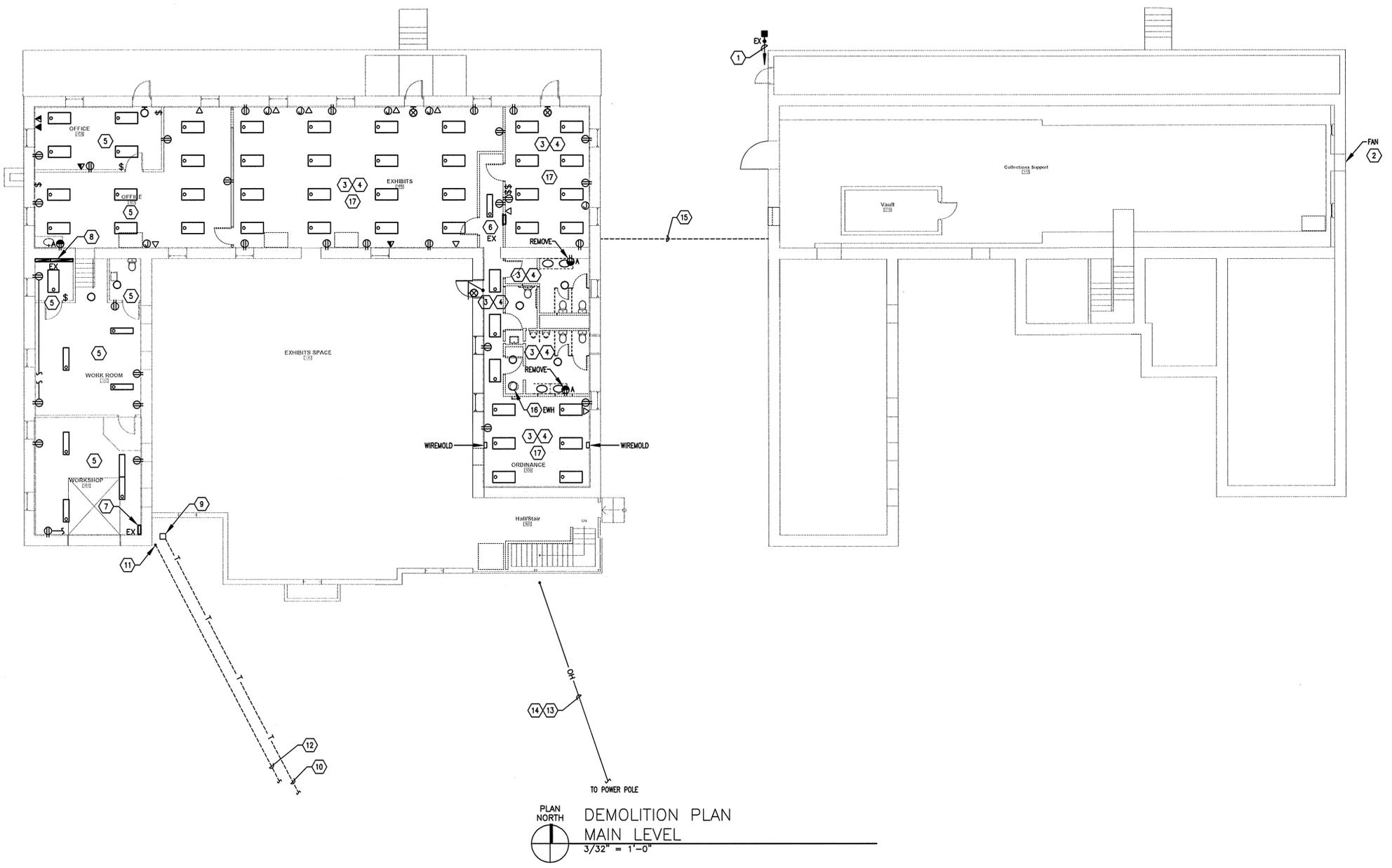
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BNA PROJ NO: 08155A
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DEMOLITION PLAN MAIN LEVEL

ED102

SHEET OF



TO POWER POLE
PLAN NORTH
DEMOLITION PLAN
MAIN LEVEL
3/32" = 1'-0"

By: Paul, Aug 11, 2008 - 9:52am
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SHEET KEYNOTES

- ① DISCONNECT POWER TO EXISTING EVAPORATIVE COOLER.
- ② DISCONNECT POWER TO EXISTING EXHAUST FAN.
- ③ REMOVE PORTION OF CONDUIT AND WIRE ABOVE ROOF, PROVIDE JUNCTION BOX IN ATTIC TO TERMINATE EXISTING CIRCUIT WIRING.

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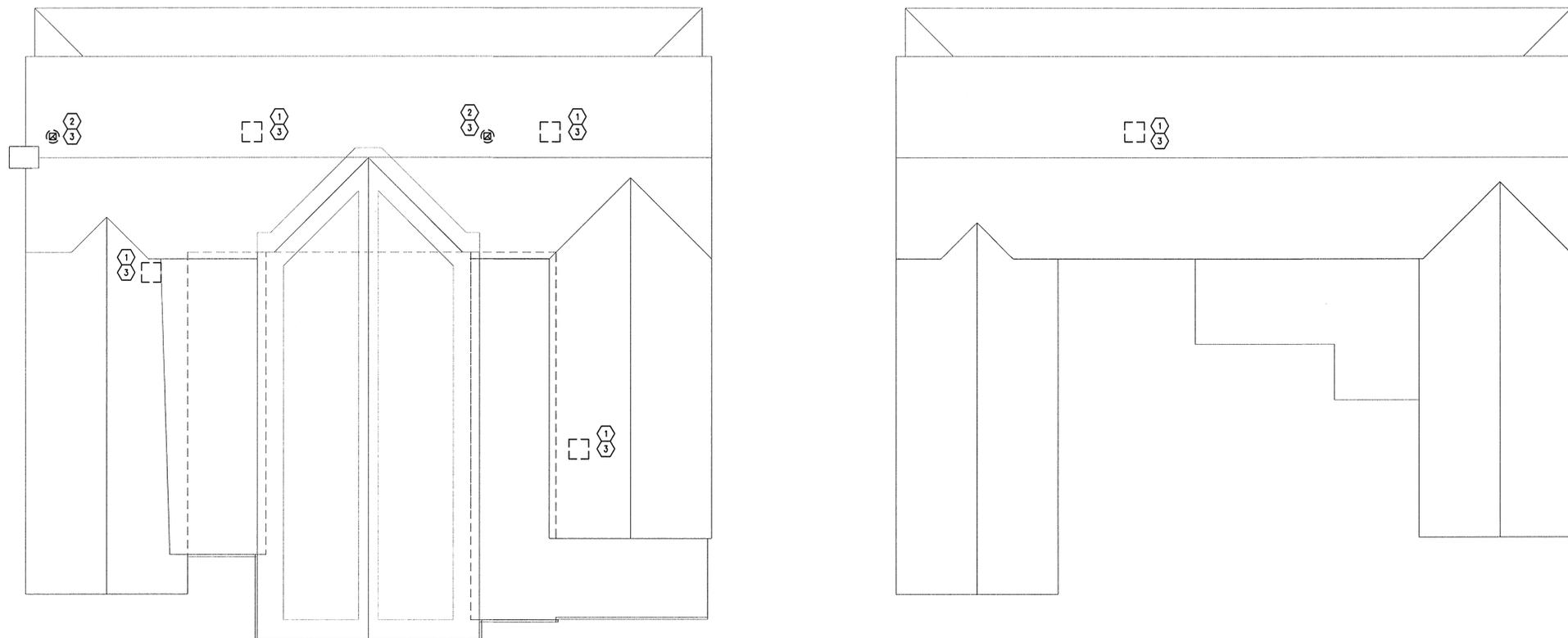


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DEMOLITION
PLAN ROOF LEVEL

3/32" = 1'-0" 0 8' 16' 32'

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BNA PROJ NO: 08155A
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CHECKED BY: GM

DEMOLITION
PLAN ROOF
LEVEL

ED104

SHEET OF

SHEET KEYNOTES

- 1 EXTEND A HOT CONDUCTOR AHEAD OF THE SWITCH TO THE EMERGENCY BATTERY PACK. USE SAME CIRCUIT PROVIDED FOR NORMAL OPERATION OF FIXTURES.
- 2 EXTEND NEW CIRCUIT TO EXISTING LIGHTS AND PROVIDE NEW SWITCH.
- 3 SUSPEND FIXTURES FROM JACK CHAIN. PROVIDE UNISTRUT TO SPAN BETWEEN JOISTS FOR ANCHORING JACK CHAIN. BOTTOM OF FIXTURE TO BE 10 FT. ABOVE FLOOR.
- 4 MOUNT BELOW STAIRS TO ILLUMINATE CUBBY HOLE.
- 5 PROVIDE DUAL-LEVEL SWITCHING, SWITCH CENTER LAMP SEPARATE FROM OUTBOARD LAMPS.
- 6 COORDINATE LOCATION WITH MECHANICAL CONTRACTOR AND LOCATE AS REQUIRED TO AVOID INTERFERENCE WITH DUCTWORK AND PIPING.

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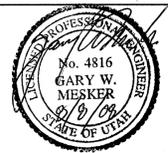


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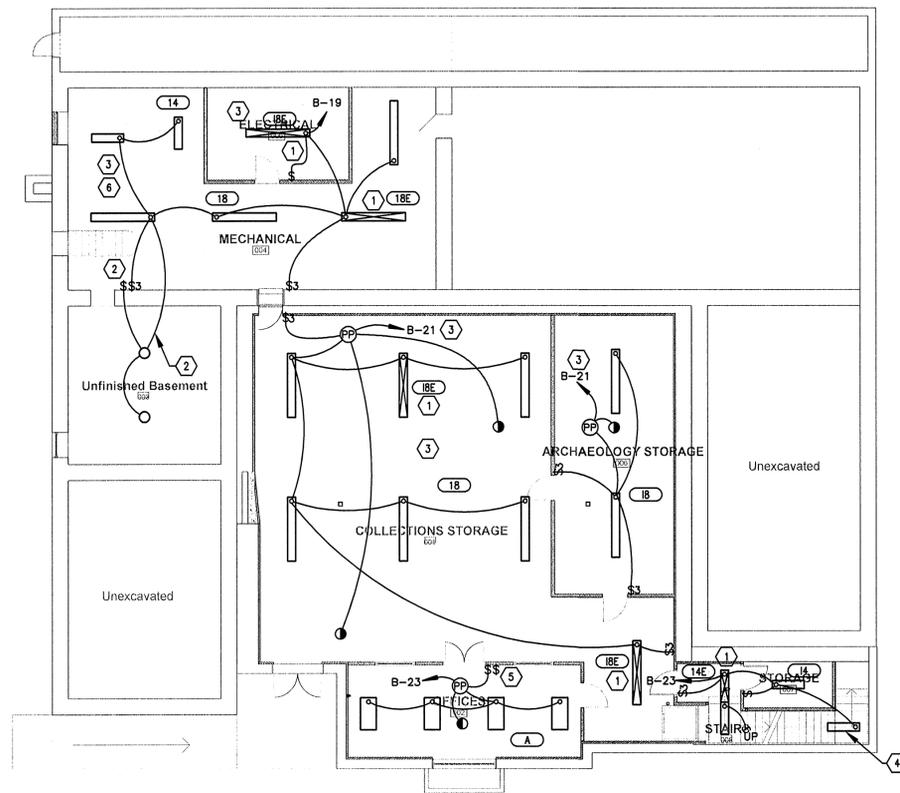
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LIGHTING PLAN LOWER LEVEL

EL101

SHEET OF



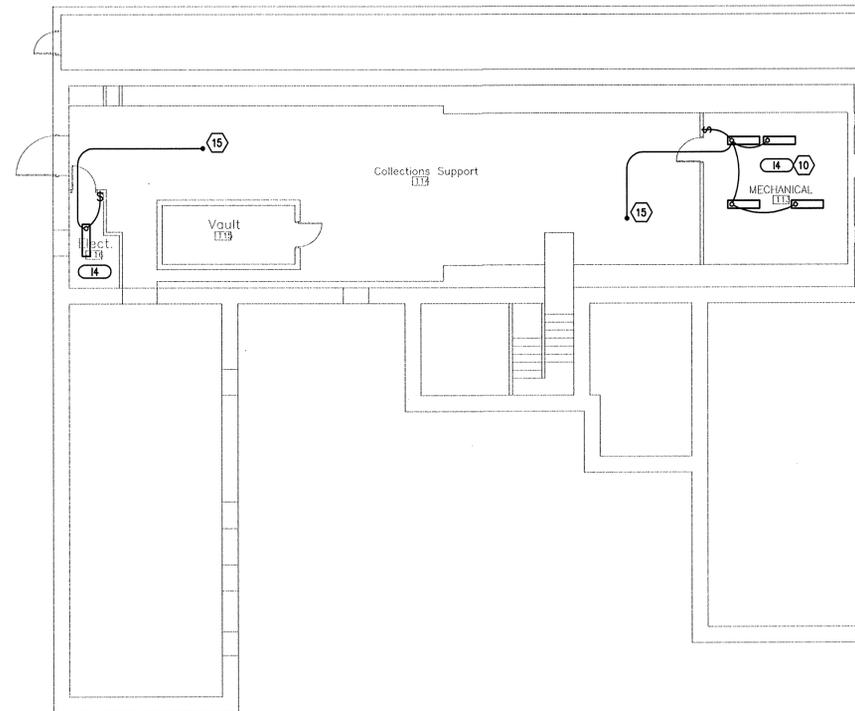
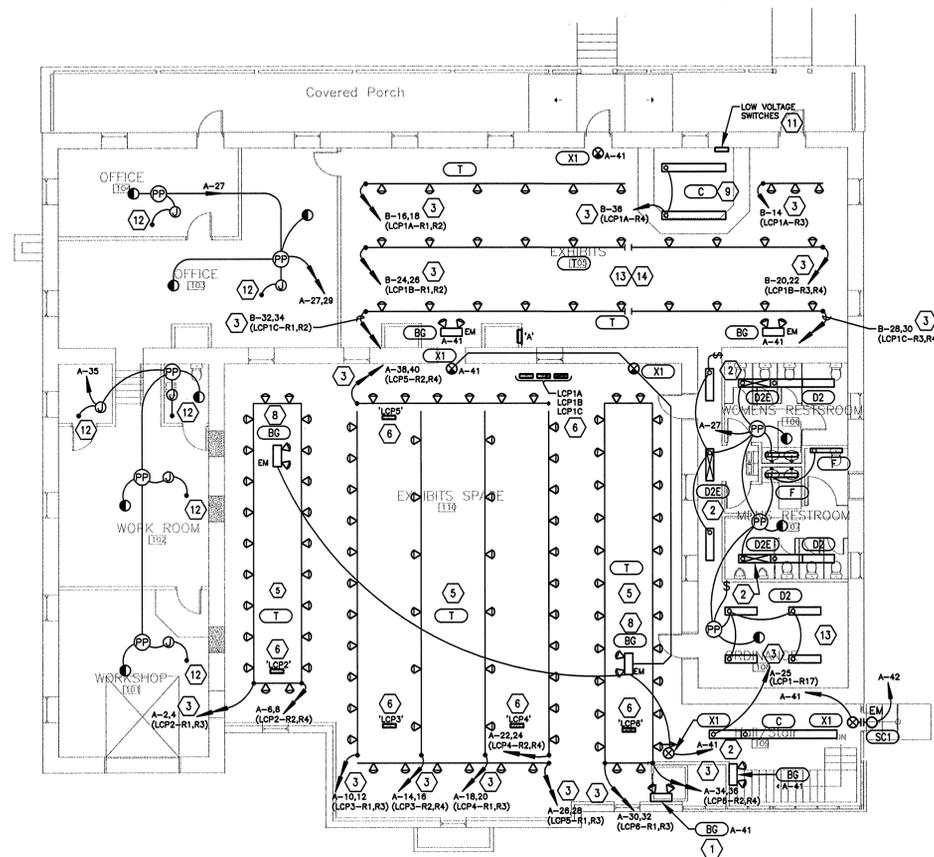
PLAN NORTH LIGHTING PLAN
LOWER LEVEL
3/32" = 1'-0"

GENERAL SHEET NOTES

1. NEW CONDUIT AND WIRING SHALL BE RUN CONCEALED IN WALLS OR IN ATTIC SPACE.

SHEET KEYNOTES

- 1 MOUNT TO BOTTOM OF RAFTERS, ABOVE LIFT.
- 2 EXTEND A HOT CONDUCTOR AHEAD OF THE SWITCH TO EMERGENCY BATTERY PACK. USE SAME CIRCUIT PROVIDED FOR NORMAL OPERATION OF FIXTURES.
- 3 CIRCUITED THRU LIGHTING CONTROL SYSTEM, CONTROLLED AT CENTRAL SWITCH BANK LOCATED AT RECEPTION DESK.
- 4 6 BUTTON DIGITAL SWITCH. SEE SWITCH SCHEDULE ON EX202.
- 5 SUSPEND TRACK FROM RAFTERS SO THAT TRACK IS 12 FT. A.F.F. (ABOVE FINISHED FLOOR).
- 6 MICRO RELAY PANEL, LOCATE ON CEILING OR HIGH ON WALL BETWEEN RAFTERS, PROVIDE 120V CCT.
- 7 ROUTE EXTERIOR LIGHTING THROUGH RELAY AND PHOTO-CELL.
- 8 MOUNT TO BOTTOM OF RAFTERS.
- 9 SUSPEND FIXTURE SO THAT BOTTOM IS 9' A.F.F..
- 10 COORDINATE LIGHT LOCATIONS WITH MECHANICAL CONTRACTOR AND LOCATE AS REQUIRED TO AVOID INTERFERENCE WITH DUCT WORK AND PIPING.
- 11 PROVIDE THREE 6-BUTTON DIGITAL SWITCHES, FLUSH MOUNT IN THE EXISTING WALL AND RUN CAT 5 CABLE TO ATTIC SPACE TO THE NEAREST LCP PANEL.
- 12 CONNECT TO EXISTING LIGHTING FIXTURE AND RUN NEW LIGHTING CIRCUIT BACK TO NEW PANEL. PROVIDE OCCUPANCY SENSORS IN THE EXISTING CEILING. RUN NEW CONDUIT/WIRING IN ATTIC SPACE.
- 13 MOUNT NEW LIGHT FIXTURES AND LIGHTING TRACK TO THE EXISTING PLASTER CEILING.
- 14 ROUTE TRACK CIRCUITS THROUGH LIGHTING CONTROL PANELS IN EXHIBIT 110, THEN HOME RUN THE CIRCUITS TO PANEL "B" IN BASEMENT ELECTRICAL ROOM.
- 15 CONNECT TO THE EXISTING LIGHTS FOR POWER.



PLAN NORTH
LIGHTING PLAN
MAIN LEVEL
3/32" = 1'-0"

COOPER
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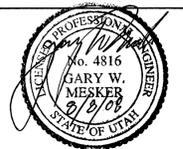
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LIGHTING PLAN
MAIN LEVEL

EL102

SHEET OF

SHEET KEYNOTES

- 1 MOUNT CT/METERING ENCLOSURE ON PAD AWAY FROM BUILDING, PROVIDE CONCRETE PAD.
- 2 (3) 3" CONDUITS AND SERVICE CONDUCTORS TO PAD MOUNTED TRANSFORMER. SEE SHEET ES100.
- 3 CAT 3 TELE CABLE IN 3/4" C. TO EXISTING TERMINAL BOARD IN STORAGE ROOM ON MAIN LEVEL. CONNECT TO SPARE PAIR OF INCOMING TELEPHONE SERVICE.
- 4 MAKE CONNECTIONS TO LIFT CONTROL. COORDINATE WITH LIFT INSTALLER AND EQUIPMENT SHOP DRAWINGS.
- 5 RIGID CONDUIT, RUN OVERHEAD THROUGH MECHANICAL ROOM.
- 6 LOCATION OF FACP TO BE APPROVED BY FIRE MARSHALL.
- 7 EXTEND NEW FEEDER IN CRAWL SPACE TO NEW PANEL 'M2' IN BUILDING 632. SEE SHEET EP102 FOR CONTINUATION.
- 8 RUN (2) CAT 5e CABLES IN 3/4" CONDUIT FROM EACH VOICE/DATA OUTLETS TO EXISTING TERMINAL BOARD/EQUIPMENT RACK IN MAIN LEVEL STORAGE ROOM.
- 9 PROVIDE CORE DRILL THRU STONE WALL AS REQUIRED.

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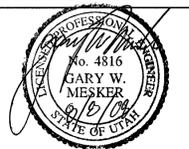


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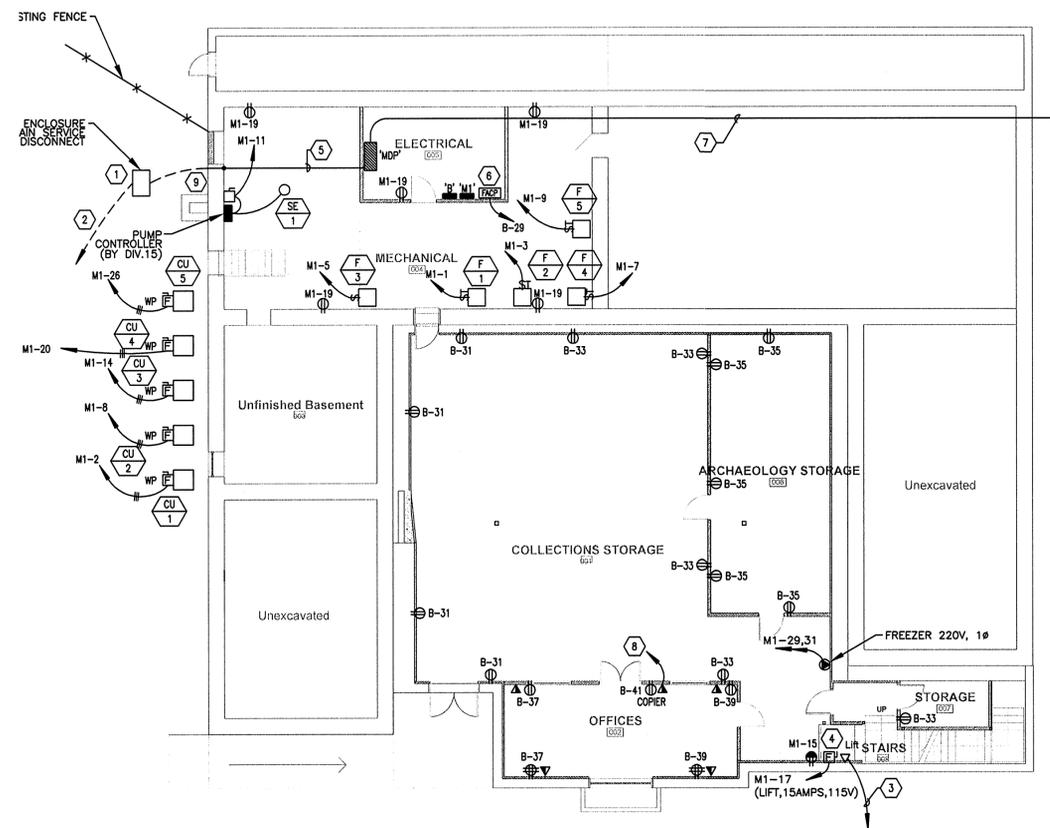
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POWER PLAN LOWER LEVEL

EP101

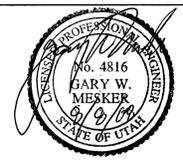
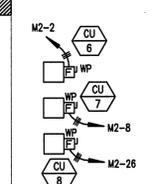
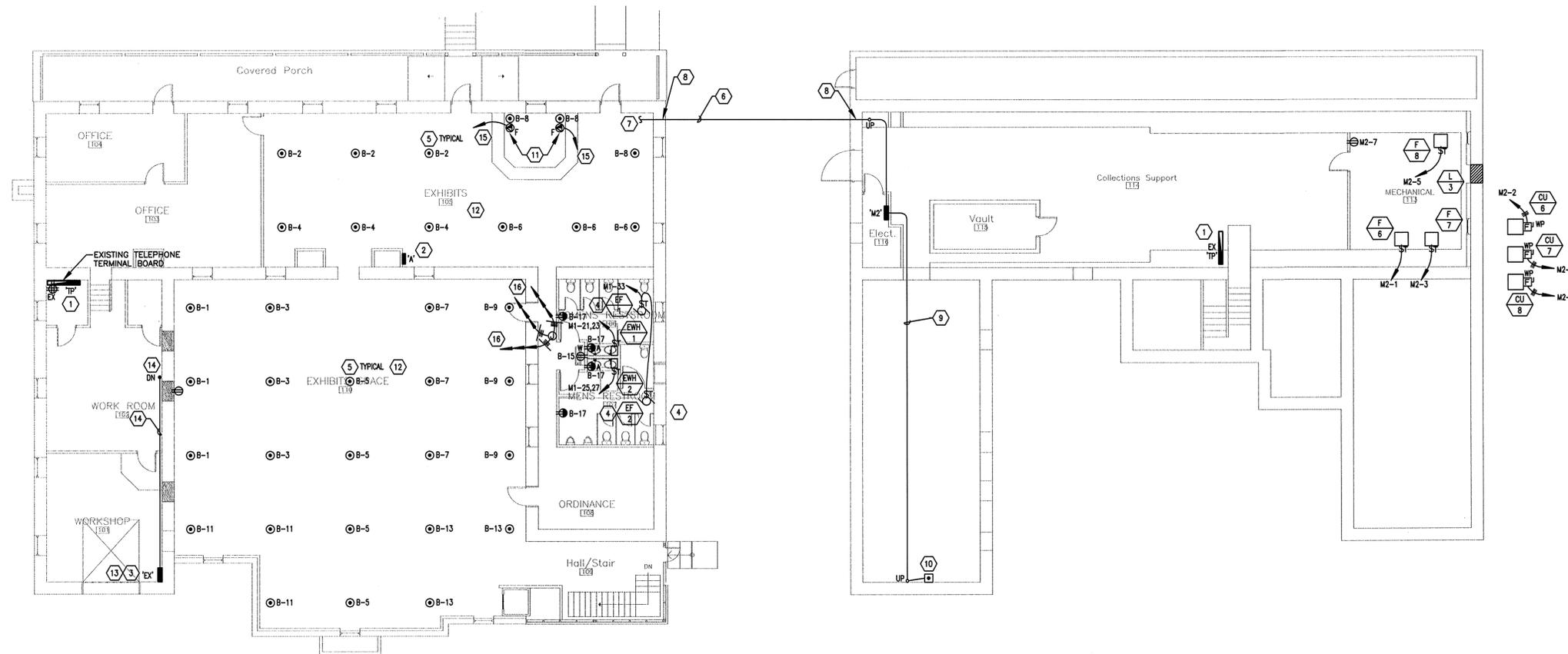
SHEET OF



PLAN NORTH
POWER PLAN
LOWER LEVEL
3/32" = 1'-0"

SHEET KEYNOTES

- 1 EXISTING TELEPHONE BOARD. EQUIPMENT AND CABLING TO REMAIN.
- 2 NEW PANEL 'A' REPLACES FUNCTION OF PREVIOUS PANEL 'EP-1'.
- 3 EXISTING PANEL 'EP-2' (150A MCB) TO REMAIN.
- 4 RUN 3 #12, 3/4" C. FROM FAN TO WALL TIMER SWITCH (TIMER SWITCH BY MECHANICAL) FOR CONTROL.
- 5 PROVIDE FLOOR BOXES AND INSTALL IN EXISTING WOOD FLOOR. CUT HOLES IN EXISTING FLOOR AS REQUIRED.
- 6 FEEDER FOR NEW PANEL 'M2'. INSTALL 24" BELOW GRADE, TRENCH AND BACKFILL AS REQUIRED. AVOID DAMAGING EXISTING UTILITIES IN THIS AREA.
- 7 EXTEND FEEDER IN CRAWL SPACE BELOW TO NEW MAIN PANEL 'MDP'. SEE SHEET EP101.
- 8 CORE DRILL/PENETRATE EXISTING STONE FOUNDATION WALL AS REQUIRED.
- 9 EXTEND 2 #12, 3/4" C. IN CRAWL SPACE. FOR SHUNT TRIP.
- 10 PROVIDE SHUNT TRIP BUTTON IN EXHIBIT ROOM ON UPPER LEVEL. LABEL "SHUNT TRIP PANEL 'M2' MAIN".
- 11 PROVIDE SEPARATE BOXES FOR POWER AND VOICE/DATA.
- 12 FLOOR BOXES SHALL BE WALKER/WIREMOLD #8600B WITH BRASS FLIP COVER FOR DUPLEX OUTLETS AND CAT#960 WITH #895GF BRASS COVER FOR VOICE/DATA. FLOOR BOXES ARE ROUND SPECIFICALLY FOR WOOD FLOORS. CUT ROUND HOLE IN FLOOR AND COUNTERSINK TOP EDGE OF FLOORING AS REQUIRED SO THAT COVER FINISHES FLUSH WITH FLOOR.
- 13 RE-POWER EXISTING PANEL EP-2 FROM NEW MAIN PANEL 'MDP'. THEN REMOVE THE EXISTING ROOF WEATHERED AND FEEDER CONDUIT/WIRING. PATCH ROOF AS REQUIRED.
- 14 ROUTE EP-2 FEEDER OVERHEAD, THEN DOWN TO UNFINISHED BASEMENT TO PANEL 'MDP' IN ELECTRICAL ROOM.
- 15 RUN (2) CAT 5E CABLES IN 3/4" CONDUIT TO TERMINAL BOARD/EQUIPMENT RACK.
- 16 PROVIDE 9 CIRCUITS TO PANEL 'A' TO RE-POWER RECEPTACLES, VENDING MACHINES, ETC. THAT WERE DISCONNECTED BY REMOVAL OF EXISTING PANEL EP-1. CONNECT TO CIRCUITS THAT WERE EXTENDED INTO THE ATTIC. SEE DEMOLITION SHEET EP-120. NOTE 17.



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POWER PLAN MAIN LEVEL

EP102

SHEET OF

SHEET KEYNOTES

- ① EXISTING PANEL TO REMAIN.
- ② EXISTING FIRE ALARM PANEL TO REMAIN.
- ③ PROVIDE FIRE ALARM WIRING AND CONDUIT TO NEW FIRE ALARM CONTROL PANEL IN BUILDING 631 LOWER LEVEL FOR INTERCONNECTION OF PANELS. RUN UNDERGROUND BETWEEN BUILDINGS, NEXT TO PANEL 'M2' FEEDER.
- ④ PROVIDE POWER TO ELECTRIC BASEBOARD HEATERS (BY MECHANICAL). RUN CIRCUITS TO PANEL 'M2' IN BASEMENT.

COOPER
ROBERTS
SIMONSEN
ARCHITECTURE

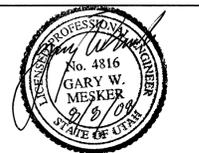


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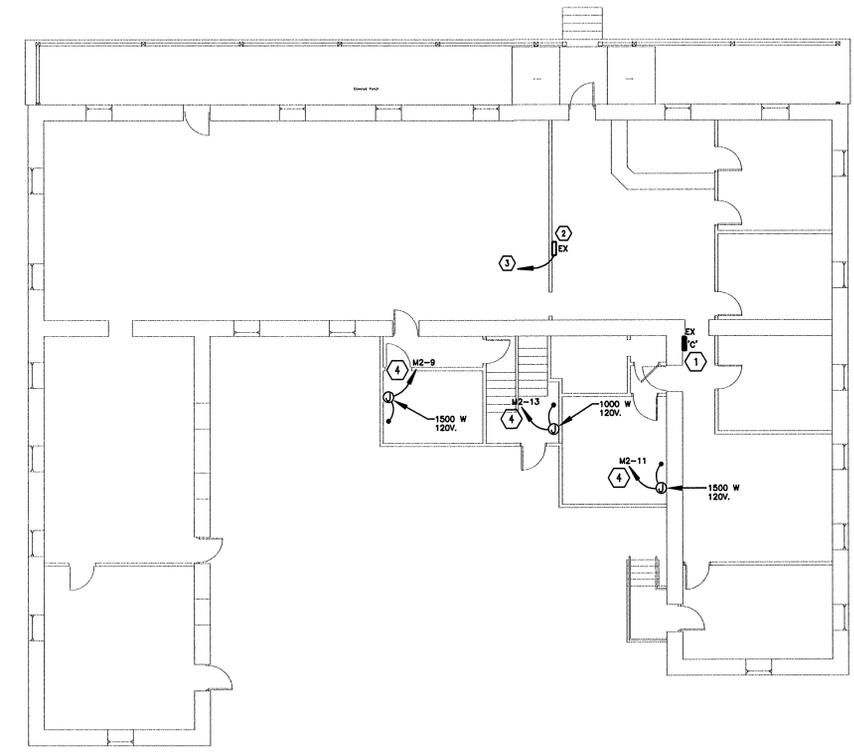
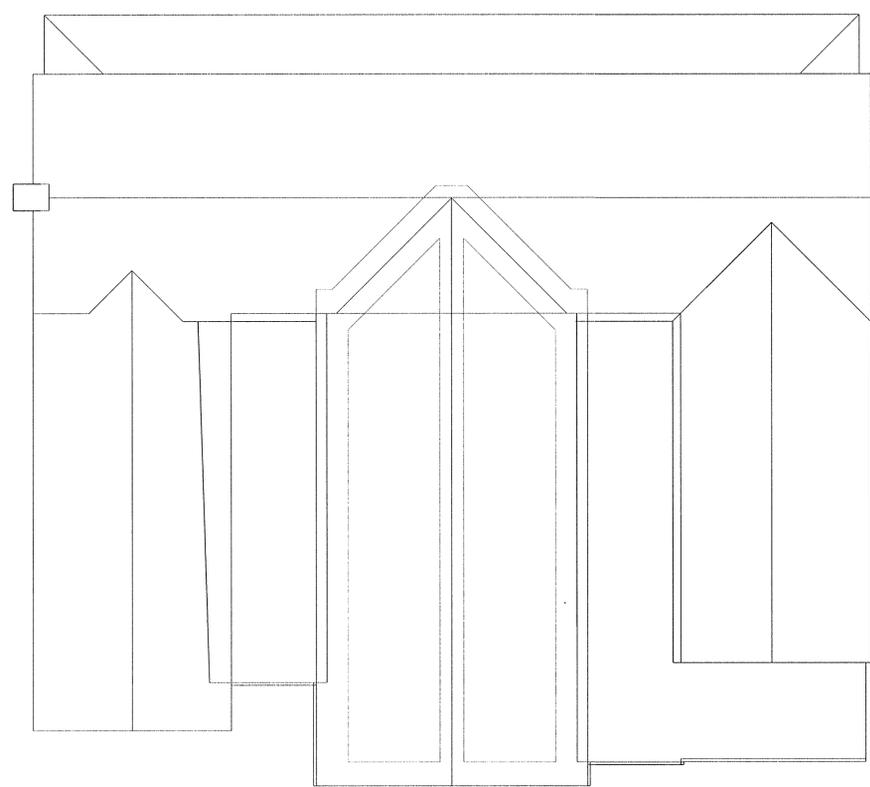


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PLAN NORTH
POWER PLAN
UPPER LEVEL
3/32" = 1'-0"

By: Paul, Aug 11, 2008 - 9:48am
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PROJECT NO: B05-027
BNA PROJ NO: 08155A
DRAWN BY: BNA
CHECKED BY: GM

POWER PLAN
UPPER LEVEL

SHEET KEYNOTES

- ① NOT USED.
- ② PROVIDE DUCT DETECTOR IN FURNACE RETURN AIR DUCTS FOR FURNACES F-1, F-2, F-3, F-4 AND F-5.
- ③ LOCATION OF FACP TO BE APPROVED BY FIRE MARSHALL.
- ④ COORDINATE LOCATIONS OF BELL, FLOW AND TAMPER SWITCHES WITH SPRINKLER CONTRACTOR BEFORE ROUGH-IN.
- ⑤ RUN 3/4"Ø WITH COMMUNICATION CABLE TO TELEPHONE TERMINAL BOARD IN MAIN LEVEL STORAGE ROOM FOR REPORTING TO OFF-SITE MONITORING.

COOPER
ROBERTS
SIMONSEN
ARCHITECTURE

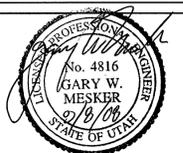


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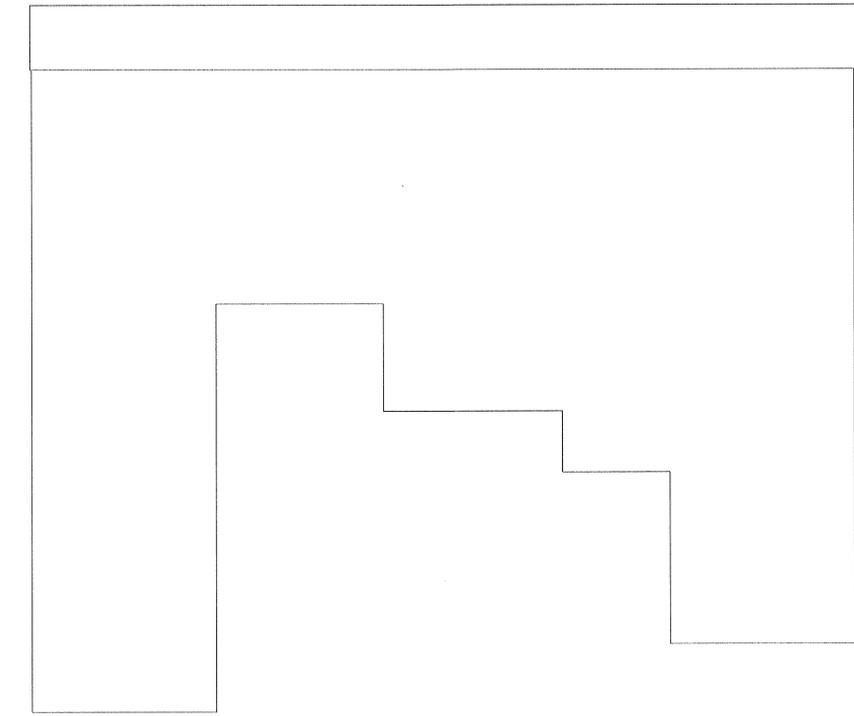
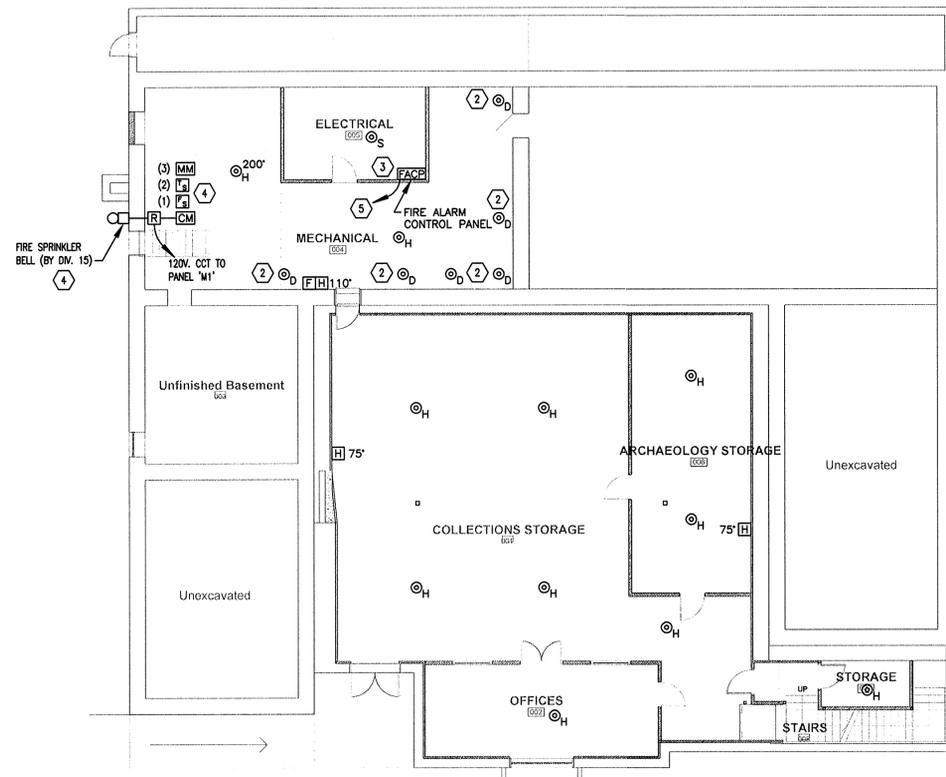
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PROJECT NO: B05-027
BNA PROJ NO: 08155A
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CHECKED BY: GM

FIRE ALARM AND
SECURITY
SYSTEMS PLAN
LOWER LEVEL

EY101

SHEET OF



PLAN NORTH
SYSTEMS PLAN
LOWER LEVEL
3/32" = 1'-0"

Pl. Rev. Aug 11, 2008 - 9:35am
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GENERAL SHEET NOTES

- CUT AND PATCH EXISTING CEILINGS IN BUILDING 631 AS REQUIRED TO INSTALL FIRE ALARM DEVICES. RUN CONDUIT IN ATTIC SPACES.

SHEET KEYNOTES

- EXISTING SECURITY PANEL IN BLDG. 632 VAULT.
- PROVIDE NEW DUCT DETECTORS IN TWO RETURN AIR DUCTS FOR FURNACE F-6.
- PROVIDE NEW DUCT DETECTOR IN FURNACE F-7 RETURN DUCT AND FURNACE F-8 RETURN DUCT.
- EXISTING SECURITY PANEL IN BUILDING 631 TELECOM ROOM.
- PROVIDE NEW FIRE ALARM PULL STATION AND HORN/STROBE.
- PROVIDE NEW SMOKE DETECTOR, CONNECT TO THE EXISTING LOOP IF POSSIBLE.
- RELOCATE EXISTING CEILING HORN/STROBE. PROVIDE NEW CONDUIT/WIRING AS REQUIRED.
- NEW DEVICES SHALL BE FCI TO MATCH EXISTING FA SYSTEM. PROVIDE NEW CLASS A CONDUIT/WIRING LOOPS AND EXTEND TO EXISTING FA PANEL AS REQUIRED ON MAIN LEVEL.
- FLUSH MOUNT ANNUNCIATOR IN THE EXISTING WALL PARTITION, CUT AND PATCH WALL AS REQUIRED.

COOPER
ROBERTS
SIMONSEN
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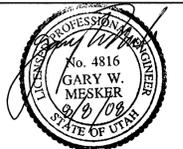
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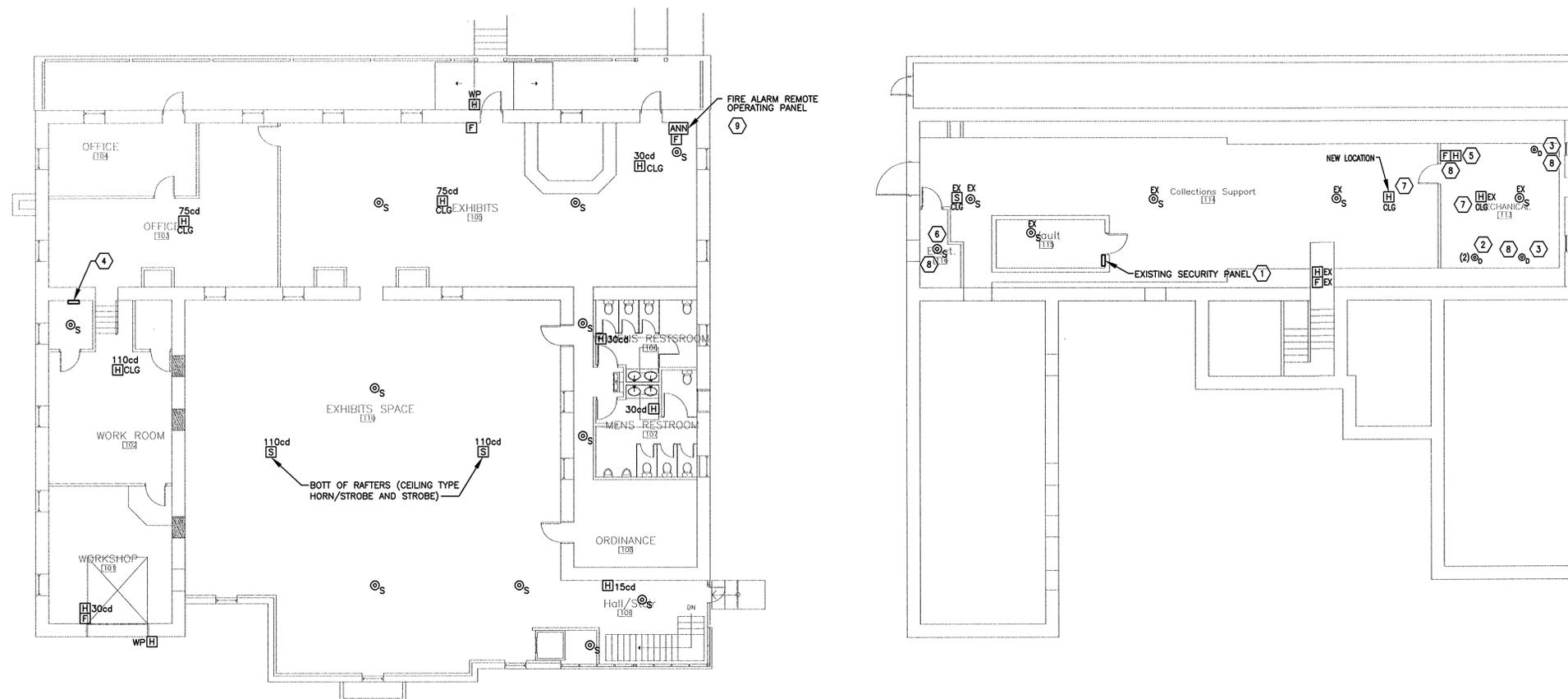
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PROJECT NO: B05-027
BNA PROJ NO: 08155A
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FIRE ALARM AND SECURITY PLAN MAIN LEVEL

EY102

SHEET OF



PLAN
NORTH
FIRE ALARM AND
SECURITY PLAN MAIN LEVEL
SCALE: 3/32" = 1'-0"

SHEET KEYNOTES

- ① EXISTING FCI FIRE ALARM PANEL FOR BUILDING 632 CONNECT NEW BASEMENT DEVICES (SHOWN ON SHEET EY102) TO THIS PANEL.
- ② RUN FIRE ALARM WIRING IN CONDUIT TO NEW 'FA' PANEL IN BUILDING 631 TO INTERCONNECT AND COMMUNICATE BETWEEN THE TWO SYSTEMS. SEE SHEET EP103 FOR ROUTING.

COOPER
ROBERTS
SIMONSEN
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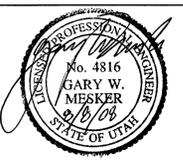


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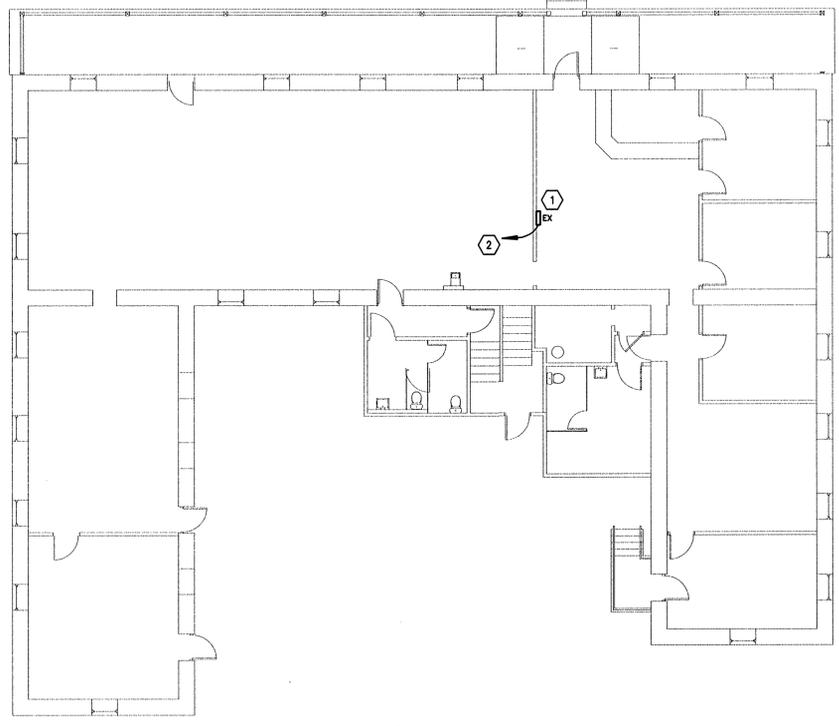
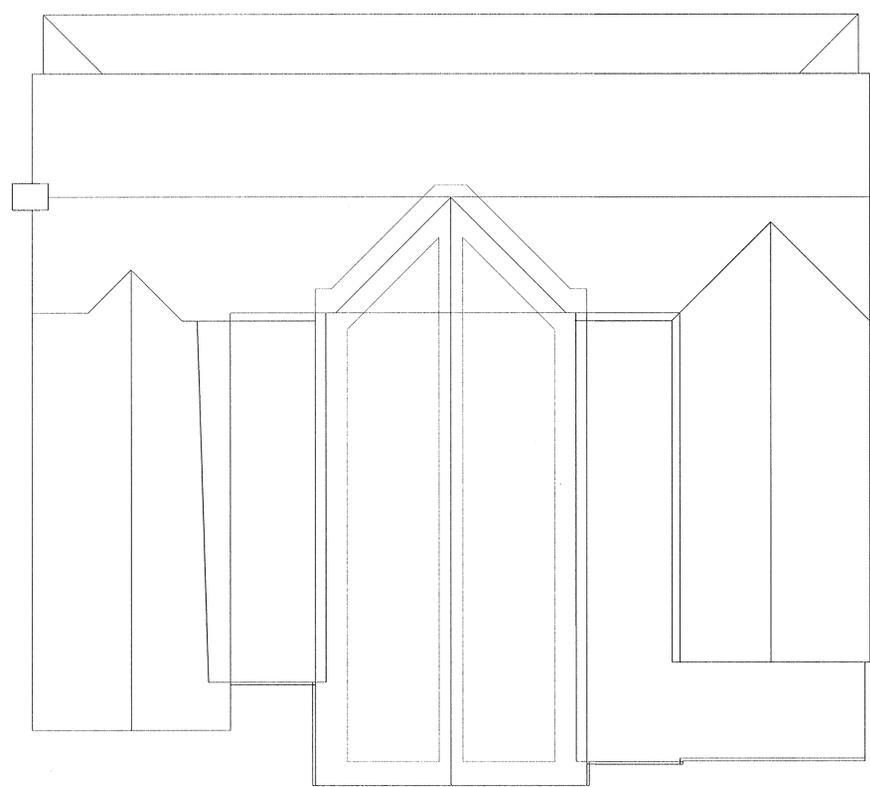
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FIRE ALARM AND
SECURITY PLAN
UPPER LEVEL

EY103

SHEET OF



NOTE: ATTIC IN BUILDING 632 CONTAINS EXISTING HEAT DETECTION.

PLAN NORTH
FIRE ALARM AND
SECURITY PLAN UPPER LEVEL
3/32" = 1'-0"

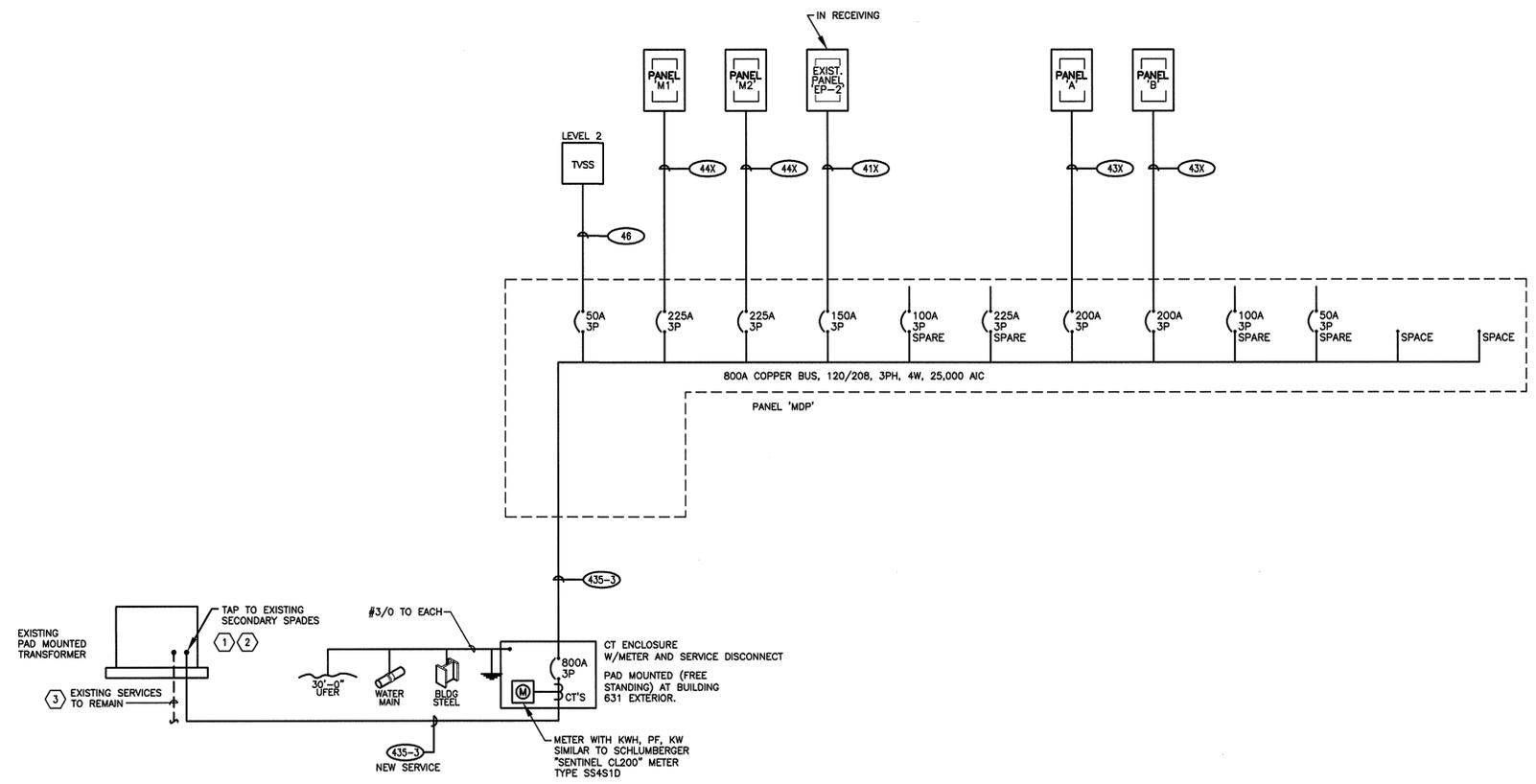
SHEET KEYNOTES

- 1 COORDINATE ALL OUTAGES WITH ARMY RESERVE BEFORE CONNECTING NEW SERVICE.
- 2 PROVIDE NEW LUGS AND DRILL AND TAP TRANSFORMER SPADES AS REQUIRED.
- 3 REARRANGE EXISTING CONDUCTORS/LUGS IN TRANSFORMER AS REQUIRED TO INSTALL AND CONNECT THE NEW SERVICE.

COPPER CONDUCTOR & CONDUIT SCHEDULE						
TYPE	AMP.	COND. SIZE	CONDUCTOR QUAN.	CONDUIT SIZE	INSUL-ATION	EQ. GND. COND.
20	30	3/4"	2	10	THHN	10
30	30	3/4"	3	10	THHN	10
40	30	3/4"	4	10	THHN	10
28	40	3/4"	2	8	THHN	10
38	40	3/4"	3	8	THHN	10
48	40	3/4"	4	8	THHN	10
26	55	3/4"	2	6	THHN	8
36	55	3/4"	3	6	THHN	8
46	55	1"	4	6	THHN	8
24	70	3/4"	2	4	THHN	8
34	70	1"	3	4	THHN	8
44	70	1-1/4"	4	4	THHN	8
23	85	1"	2	3	THHN	8
33	85	1"	3	3	THHN	8
43	85	1-1/4"	4	3	THHN	8
32	95	1-1/4"	3	2	THHN	6
42	95	1-1/4"	4	2	THHN	6
31	110	1-1/4"	3	1	THHN	6
41	110	1-1/2"	4	1	THHN	6
51	110	2"	5	1	THHN	6
31X	150	1-1/2"	3	1/0	THHN	6
41X	150	1-1/2"	4	1/0	THHN	6
51X	150	2"	5	1/0	THHN	6
32X	175	1-1/2"	3	2/0	THHN	6
42X	175	2"	4	2/0	THHN	6
52X	175	2"	5	2/0	THHN	6
33X	200	2"	3	3/0	THHN	6
43X	200	2"	4	3/0	THHN	6
53X	200	2-1/2"	5	3/0	THHN	6
34X	230	2"	3	4/0	THHN	4
44X	230	2-1/2"	4	4/0	THHN	4
54X	230	2-1/2"	5	4/0	THHN	4
325	255	2"	3	250	THHN	4
425	255	2-1/2"	4	250	THHN	4
525	255	2-1/2"	5	250	THHN	4
335	310	2-1/2"	3	350	THHN	3
435	310	3"	4	350	THHN	3
535	310	3"	5	350	THHN	3
340	335	3"	3	400	THHN	3
440	335	3"	4	400	THHN	3
540	335	3"	5	400	THHN	3
350	380	3-1/2"	3	500	XHHW	3
450	380	3-1/2"	4	500	XHHW	3
550	380	3-1/2"	5	500	XHHW	3

COPPER CONDUCTOR & CONDUIT SCHEDULE FOR PARALLEL RUNS							
TYPE	MAX. O.C. PROT.	COND. AMPS	SETS	CONDUCTOR QUAN.	CONDUIT SIZE	EQ. GND. COND.	
425-2	600	510	2	3	250	2-1/2"	1
425-2	600	510	2	4	250	2-1/2"	1
425-2	600	510	2	5	250	2-1/2"	1
435-2	700	620	2	4	350	3"	1/0
440-2	700	670	2	4	400	3"	1/0
450-2	800	760	2	3	500	3"	1/0
450-2	800	760	2	4	500	4"	1/0
450-2	800	760	2	5	500	4"	1/0
460-2	800	840	2	4	600	4"	1/0
435-3	900	930	3	3	350	3"	2/0
435-3	900	930	3	4	350	3"	2/0
435-3	900	930	3	5	350	3"	2/0
440-3	1000	1005	3	3	400	3"	2/0
440-3	1000	1005	3	4	400	3"	2/0
440-3	1000	1005	3	5	400	3"	2/0
435-4	1200	1240	4	4	350	3"	3/0
435-4	1200	1240	4	5	350	3"	3/0
460-3	1200	1260	3	4	600	4"	3/0
435-5	1500	1550	5	3	350	3"	4/0
435-5	1500	1550	5	4	400	3"	4/0
435-5	1500	1550	5	5	400	3"	4/0

IN PARALLEL RUNS SIZE GND. COND. ACCORDANCE WITH NEC PARA. 250-122.
 ON SERVICE ENTRANCE CONDUCTORS
 * 200% NEUTRAL



1 ONE-LINE DIAGRAM
NO SCALE

COOPER ROBERTS SIMONSEN ARCHITECTURE

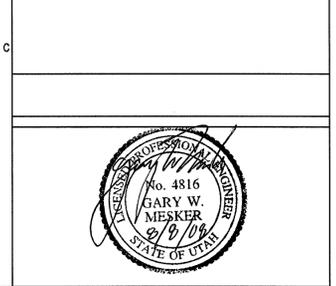
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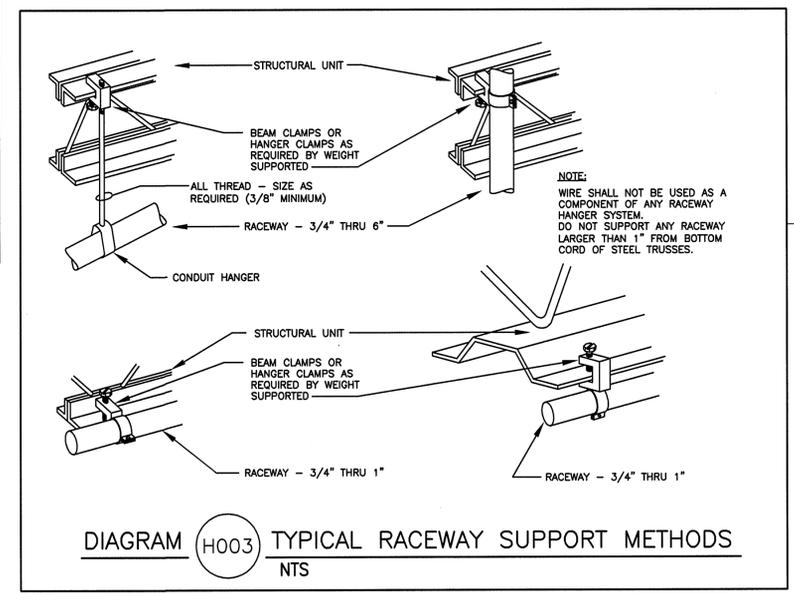
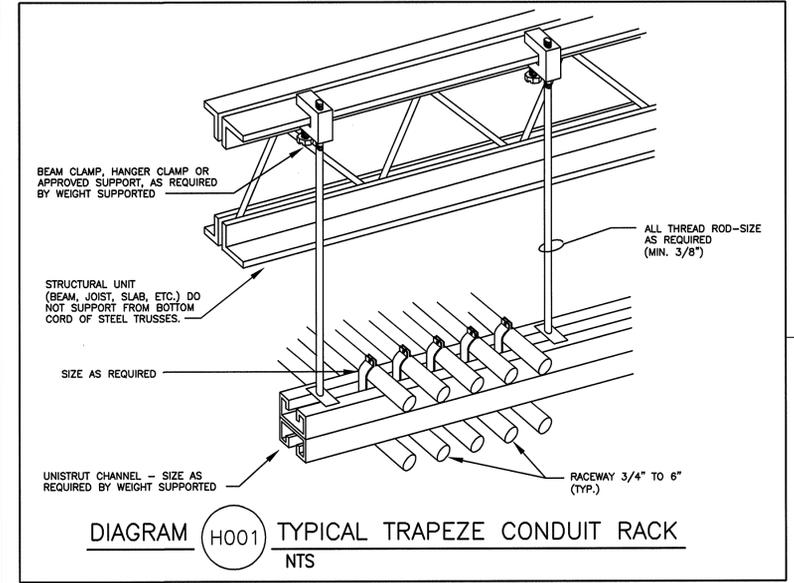
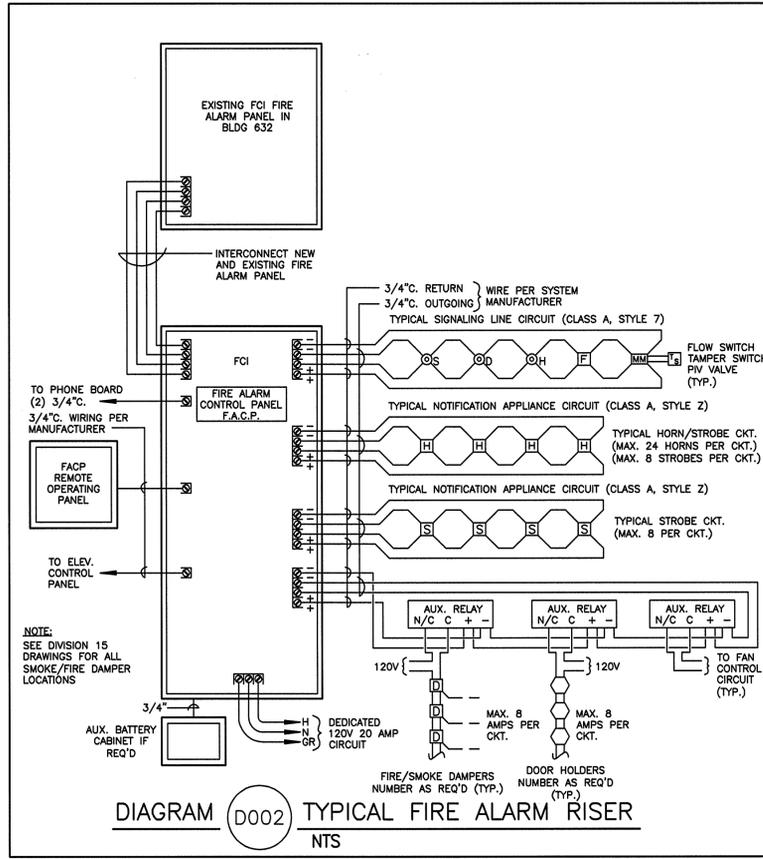
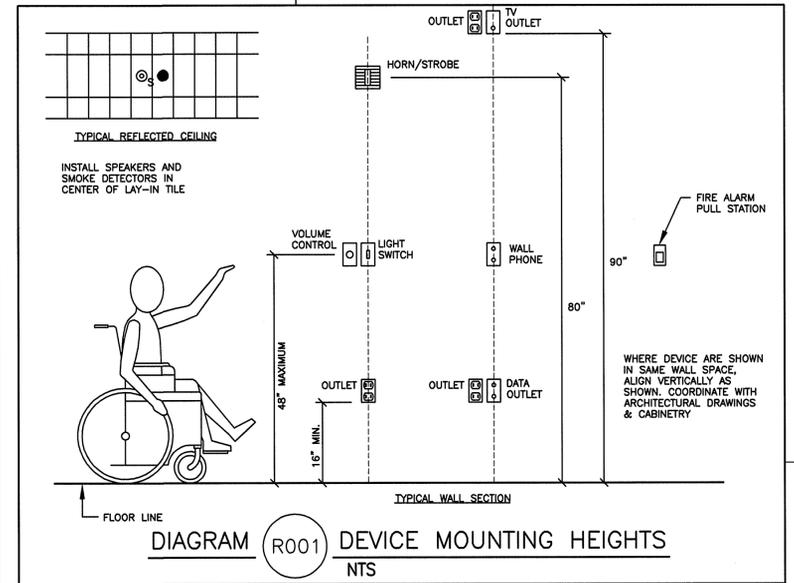
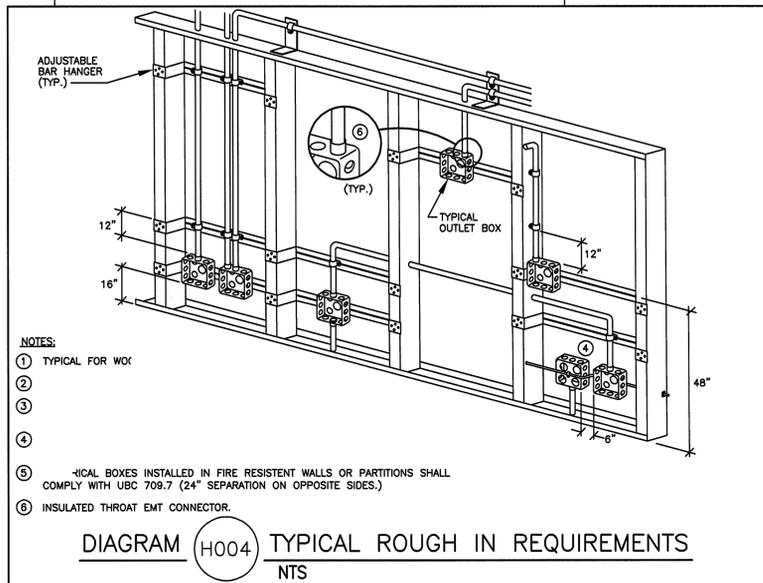
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BNA PROJ NO: 08155A
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ONE LINE DIAGRAM

EX101
SHEET OF



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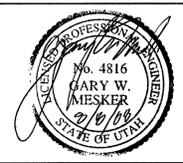


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**ELECTRICAL
DIAGRAMS**

EX201

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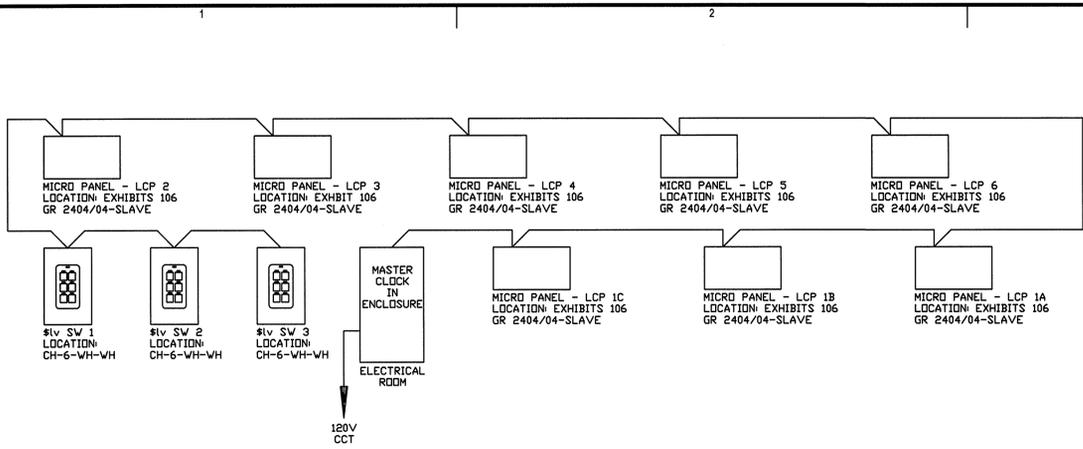
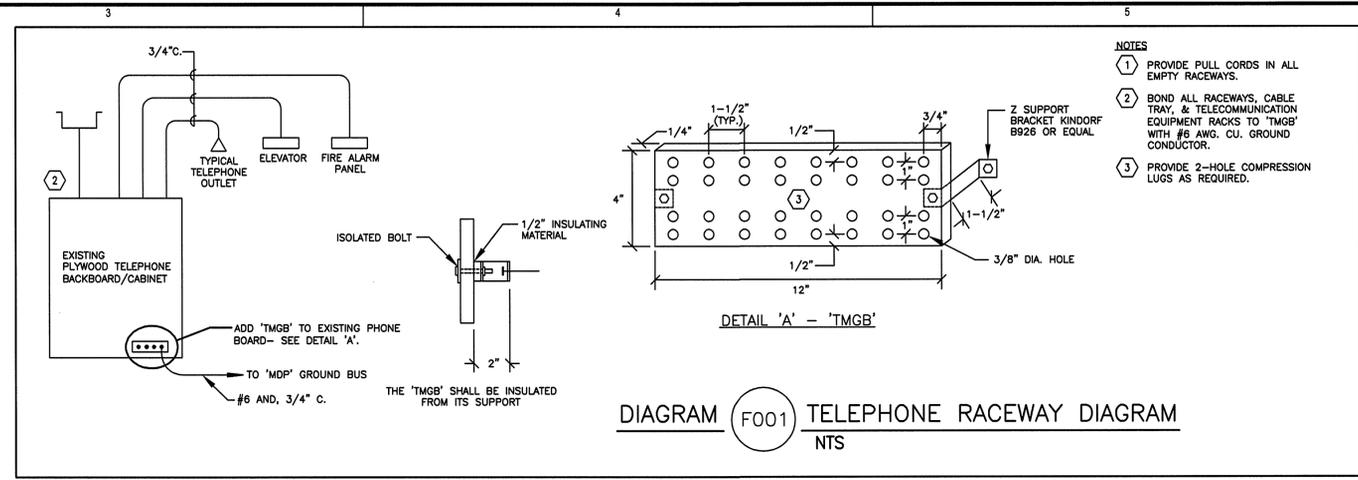
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ELECTRICAL
DIAGRAMS

EX202
SHEET OF



LIGHTING CONTROLS - LOW VOLTAGE SINGLE LINE

Comments:

ID: LCP 2
Location: EXHIBITS 106
Supply Circuit: A-1 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	A-2	1	NC	120V	Normal	TRACK 2	2	A-6	1	NC	120V	Normal	TRACK 6
3	A-4	2	NC	120V	Normal	TRACK 4	4	A-8	2	NC	120V	Normal	TRACK 8

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 2

Comments:

ID: LCP 3
Location: EXHIBIT 106
Supply Circuit: A-3 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	A-10	1	NC	120V	Normal	TRACK 10	2	A-14	1	NC	120V	Normal	TRACK 14
3	A-12	2	NC	120V	Normal	TRACK 12	4	A-16	2	NC	120V	Normal	TRACK 16

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 3

Comments:

ID: LCP 4
Location: EXHIBITS 106
Supply Circuit: A-3 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	A-18	1	NC	120V	Normal	TRACK 18	2	A-22	1	NC	120V	Normal	TRACK 22
3	A-20	2	NC	120V	Normal	TRACK 20	4	A-24	2	NC	120V	Normal	TRACK 24

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 4

Comments:

ID: LCP 5
Location: EXHIBITS 106
Supply Circuit: A-3 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	A-26	1	NC	120V	Normal	TRACK 26	2	A-30	1	NC	120V	Normal	TRACK 30
3	A-28	2	NC	120V	Normal	TRACK 28	4	A-40	2	NC	120V	Normal	TRACK 40

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 5

Comments:

ID: LCP 6
Location: EXHIBITS 106
Supply Circuit: A-3 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	A-30	1	NC	120V	Normal	TRACK 30	2	A-34	1	NC	120V	Normal	TRACK 34
3	A-32	2	NC	120V	Normal	TRACK 32	4	A-36	2	NC	120V	Normal	TRACK 36

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 6

Comments:

ID: LCP 1A
Location: EXHIBITS 106
Supply Circuit: A-1 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	B-16	1	NC	120V	Normal	TRACK A1-1	2	B-18	1	NC	120V	Normal	TRACK A1-2
3	B-14	2	NC	120V	Normal	TRACK A2-1	4	B-18	2	NC	120V	Normal	SPARE

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 1A

ID: LCP 1B
Location: EXHIBITS 106
Supply Circuit: A-1 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	B-24	1	NC	120V	Normal	TRACK A3-1	2	B-26	1	NC	120V	Normal	TRACK A3-2
3	B-20	2	NC	120V	Normal	TRACK A4-1	4	B-22	2	NC	120V	Normal	TRACK A4-2

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 1B

ID: LCP 1C
Location: EXHIBITS 106
Supply Circuit: A-1 Voltage: 120V Normal

Relay	Line Feed	Zone	Type	Voltage	Source	Description	Relay	Line Feed	Zone	Type	Voltage	Source	Description
1	B-32	1	NC	120V	Normal	TRACK A5-1	2	B-34	1	NC	120V	Normal	TRACK A5-2
3	B-28	2	NC	120V	Normal	TRACK A6-1	4	B-30	2	NC	120V	Normal	TRACK A6-2

Part #: GR 2404/04-SLAVE
Enclosure Dimensions: 6"H x 12"W x 4"D
NEMA Rating: 1

PANEL SCHEDULE - LCP 1C

ID: SW 1
Part #: CH-6-VH-WH
Location: RECEPTION DESK

Button	Name	Function	Zones Controlled	Color	Line 1	Line 2
1	BUTTON 1	Toggle	LCP 2/1-2/LCP 3/1-2/LCP 4/1-2/LCP 5/1-2/LCP 6/1-2	White	1	EXHIBITS
2	BUTTON 2	Toggle	LCP 2/3-4/LCP 3/3-4/LCP 4/3-4/LCP 5/3-4/LCP 6/3-4	White	2	EXHIBITS
3	BUTTON 3	Toggle	TBD	White	3	EXHIBITS
4	BUTTON 4	Toggle	TBD	White	4	EXHIBITS
5	BUTTON 5	Toggle	TBD	White	5	EXHIBITS
6	BUTTON 6	Toggle	TBD	White	6	EXHIBITS

SWITCH SCHEDULE - SW 1

SWITCHES SW2 AND SW3 SHALL BE SIMILAR