

**DFCM PRE-BID STAFF REVIEW**  
Division of Facilities Construction and Management

PROJECT MANUAL: \_\_\_\_\_  
ENERGY: \_\_\_\_\_

OTHER AGENCIES: \_\_\_\_\_

REVIEW DOES NOT RELIEVE A/E OF DESIGN LIABILITY

**DFCM PLAN CHECK**  
Division of Facilities Construction and Management

Phase	Approved	Revised	Comments	Date
Accessibility				
Architectural				
Civil				
Electrical				
Energy				
HVAC				
Landscape				
Plumbing				
Specification				
Structural				

APPROVALS: \_\_\_\_\_

PRIME AGENCY: \_\_\_\_\_ DATE: \_\_\_\_\_

DFCM: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY



# JLTC- BUILDING #2 REMODELING

## CAMP W. G. WILLIAMS

UTAH NATIONAL  
GUARD

17800 CAMP WILLIAMS ROAD  
BLUFFDALE, UTAH



State of Utah - Department of Administrative Services  
DIVISION OF FACILITIES CONSTRUCTION  
AND MANAGEMENT

DFCM PROJECT #08247480

### DRAWING INDEX

SHEET #	SHEET TITLE
G000	COVER SHEET, MAPS, GENERAL INFORMATION
A101	FLOOR PLAN / DEMOLITION PLAN
A102	REFLECTED CEILING PLAN / DETAILS
A600	DOOR & FINISH SCHEDULE / DETAILS
M101	MECHANICAL FLOOR PLAN
EE001	SYMBOLS, LEGEND, SHEET INDEX
EE501	TYPICAL MOUNTING HEIGHTS
ED101	DEMOLITION PLAN
EP101	POWER PLAN
EL101	LIGHTING PLAN
EL601	LIGHT FIXTURE SCHEDULE
FA101	FIRE ALARM PLAN

ARCHITECT: **L. K. SORENSEN ASSOCIATES, INC.**  
ARCHITECTS/PLANNERS

1332 DUEHL CIRCLE  
TAYLORSVILLE, UTAH 84123  
PHONE: (801)262-9393  
FAX: (801)262-3511 Email: keith@lksorensenarchitects.com

MECHANICAL ENGINEER:  
**ADVANCED CONCEPT ENGINEERING**

11851 VISTA GLEN COURT  
SANDY, UTAH 84092  
PHONE: (801) 572-3055  
FAX: (801) 572-3075

ELECTRICAL ENGINEER:  
**SPECTRUM ENGINEERS**

175 SOUTH MAIN, SUITE 300  
SALT LAKE CITY, UTAH 84111  
PHONE: (801)328-5151  
FAX: (801)328-5155

### CODES

Code	Year	Code	Year
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for Building Conservation	N/A
International Plumbing Code	2006	ADA Accessibility Guidelines	ANSI 117
International Fire Code	2006		
International Energy Conservation Code	2006		

A. Occupancy and Group: B EXISTING BUILDING

Change in Use: Yes No No X Mixed Occupancy: Yes No No X  
Special Use and Occupancy (e.g. High Rise, Covered Mall): NO

B. Seismic Design Category: 2 Design Wind Speed: NO mph

C. Type of Construction (circle one):  

I	II	III	IV	V	VI
A	A	A	A	A	B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):  
 North: \_\_\_\_\_ South: \_\_\_\_\_ East: \_\_\_\_\_ West: \_\_\_\_\_

E. Mixed Occupancies: N Nonseparated Uses: N

F. Sprinklers:  
 Required: NO Provided: \_\_\_\_\_ Type of Sprinkler System: \_\_\_\_\_

G. Number of Stories: 1 Building Height: 16'

H. Actual Area per Floor (square feet): EXISTING BUILDING 7,600 SF

I. Tabular Area: REMODELED AREA 2,080 SF

J. Area Modifications: NOT REQUIRED

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

b) Sum of the Ratio Calculations for Mixed Occupancies:  
 $\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:  
 1) One Story: \_\_\_\_\_  
 2) Two Story:  $A_a(2)$  \_\_\_\_\_  
 3) Three Story:  $A_a(3)$  \_\_\_\_\_

d) Unlimited Area Building: Yes \_\_\_\_\_ No \_\_\_\_\_ Code Section: \_\_\_\_\_

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

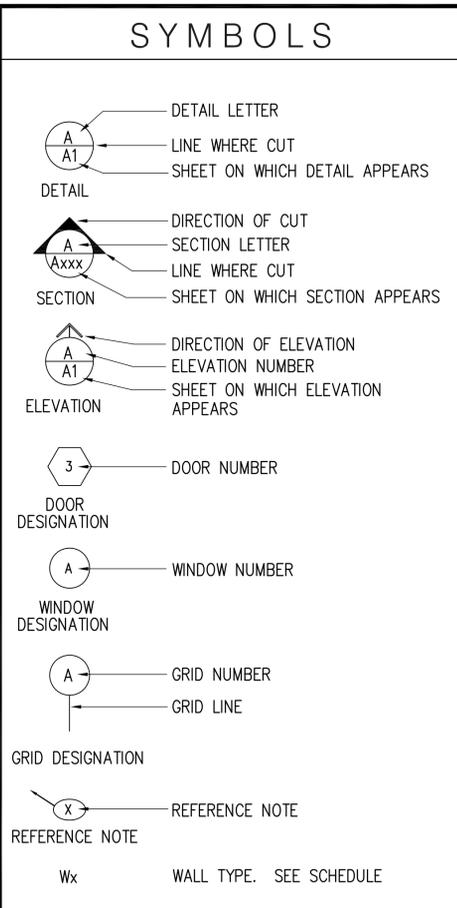
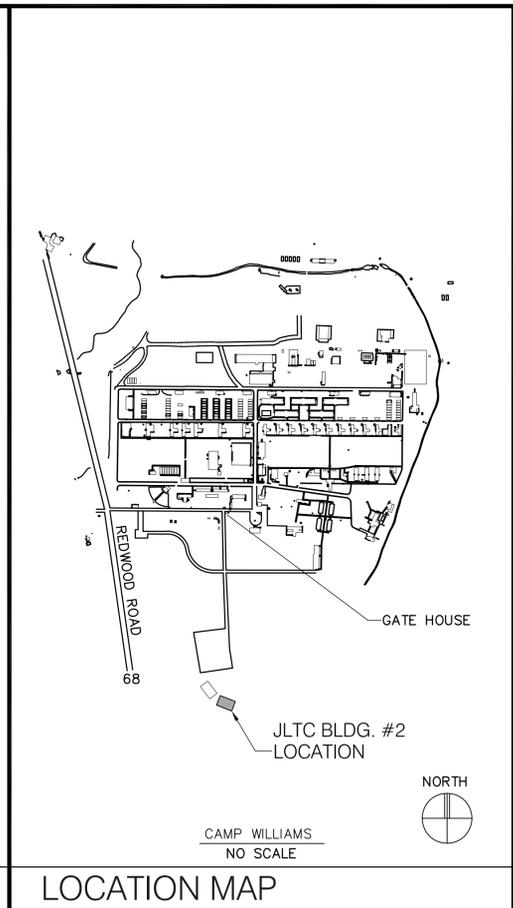
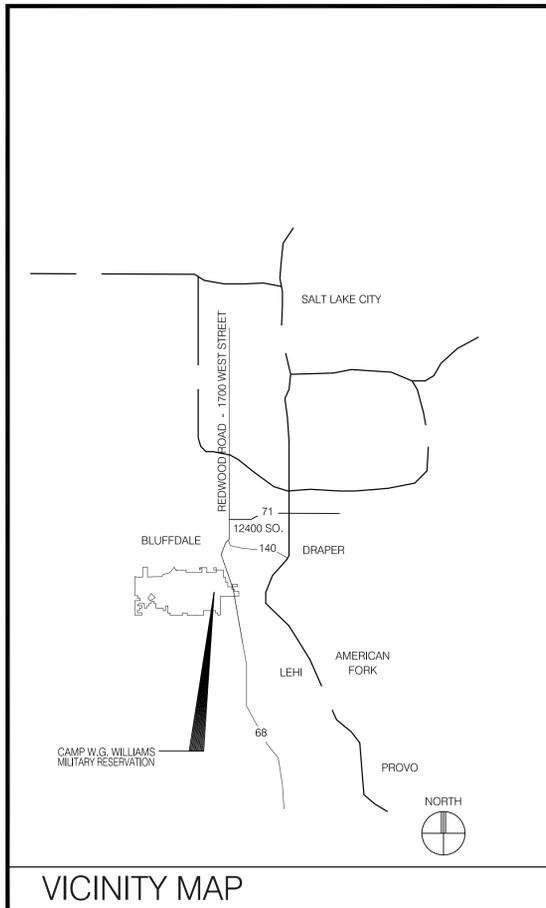
Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	N		Floors - Ceiling	N	
Interior Bearing Walls	N		Roofs - Ceiling	N	
Exterior Non-Bearing Walls	N		Exterior Doors and Windows	N	
Structural Frame	N		Shaft Enclosures	N	
Partitions - Permanent	N		Fire Walls	N	
Fire Barriers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

L. Design Occupant Load: 90 FOR ORIGINAL BUILDING  
 Exit Width Required: 18' Exit Width Provided: 72' PROVIDED

M. Minimum Number of Required Plumbing Facilities: EXISTING

a) Water Closets - Required (m) 2 (f) \_\_\_\_\_ Provided (m) 2 (f) 2  
 b) Lavatories - Required (m) 2 (f) 2 Provided (m) 3 (f) 2  
 c) Bath Tubs or Showers: N/A  
 d) Drinking Fountains: 1 Service Sinks: 1

FOOTNOTES:  
 1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through VI - 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, d) Means or Egress Analysis,  
 b) Atriums, e) Fire Assembly Locator Sheet,  
 c) Performance Based Criteria, f) Exterior and Interior Accessibility Route,  
 g) Fire Stopping, Including Tested Design Number.



### ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR	I.D.	INSIDE DIAMETER
ACOUS.	ACOUSTICAL	INSUL.	INSULATION
ADJ.	ADJUSTABLE	INT.	INTERIOR
ALUM.	ALUMINUM	MAX.	MAXIMUM
&	AND	MANUF.	MANUFACTURER
@	AT	MIN.	MINIMUM
∠	ANGLE	MTL.	METAL
BLDG.	BUILDING	N.L.B.	NON LOAD BEARING
BRD.	BOARD	N.I.C.	NOT IN CONTRACT
BLK'G.	BLOCKING	No.	NUMBER
BOT.	BOTTOM	O.C.	ON CENTER
CLG.	CEILING	O.D.	OUTSIDE DIAMETER
CONC.	CONCRETE	PART. BRD.	PARTICLE BOARD
CONST.	CONSTRUCTION	?	PLATE
CONT.	CONTINUOUS	±	PLUS or MINUS
COORD.	COORDINATE	PLYWD.	PLYWOOD
∩	CHANNEL	PRE-FAB.	PRE-FABRICATED
∅	DIAMETER	P.T.D.	PAPER TOWEL DISPENSER
DISP.	DISPENSER	REINF.	REINFORCED
DN	DOWN	RM.	ROOM
DRY'G.	DRYING	SCHED.	SCHEDULE
EA.	EACH	SCWD	SOLID CORE WOOD DOOR
EL.	ELEVATION	S.D.	SOAP DISPENSER
EQ.	EQUAL	S.F.	SQUARE FEET
EXIST.	EXISTING	SHT.	SHEET
EXP.	EXPANSION	SHT.	SPECIFICATIONS
F.E.C.	FIRE EXTINGUISHER CABINET	SQ.	SQUARE
FNDTN.	FOUNDATION	STD.	STANDARD
FT.	FEET	T.P.D.	TOILET PAPER DISPENSER
FTG.	FOOTING	TYP.	TYPICAL
F.V.	FIELD VERIFY	U.N.O.	UNLESS NOTED OTHERWISE
GYP. BRD.	GYPSON BOARD	WATERPRF.	WATERPROOF
H.M.	HOLLOW METAL	w/	WITH

UTAH NATIONAL GUARD  
JLTC BLDG. #2  
CAMP W.G. WILLIAMS, UTAH

lks #0000

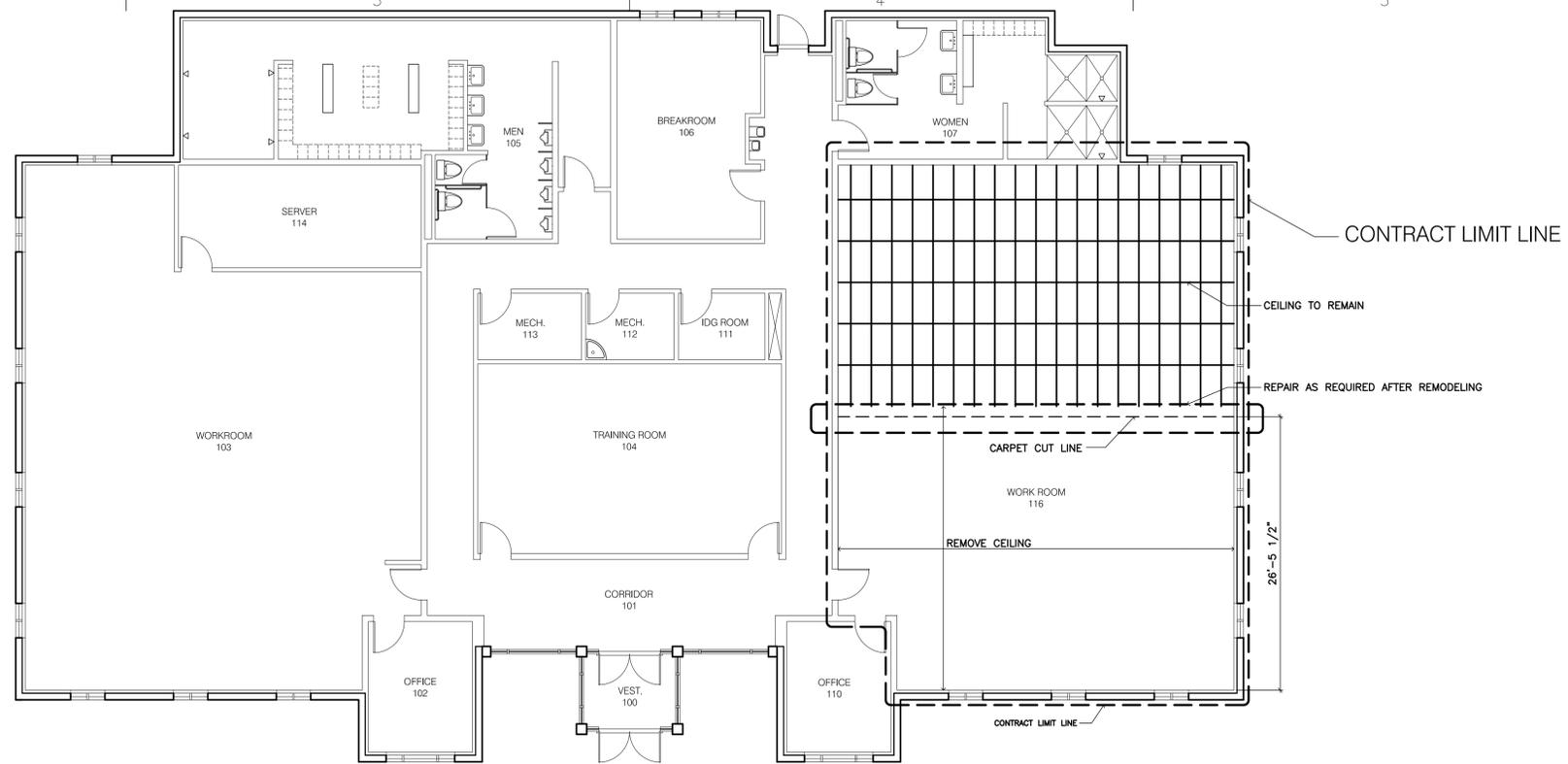
DATE PRINTED: \_\_\_\_\_

SHEET NUMBER  
**G000**

**GENERAL DEMOLITION AND REMODELING NOTES:** UTANG JLTC PROJECT

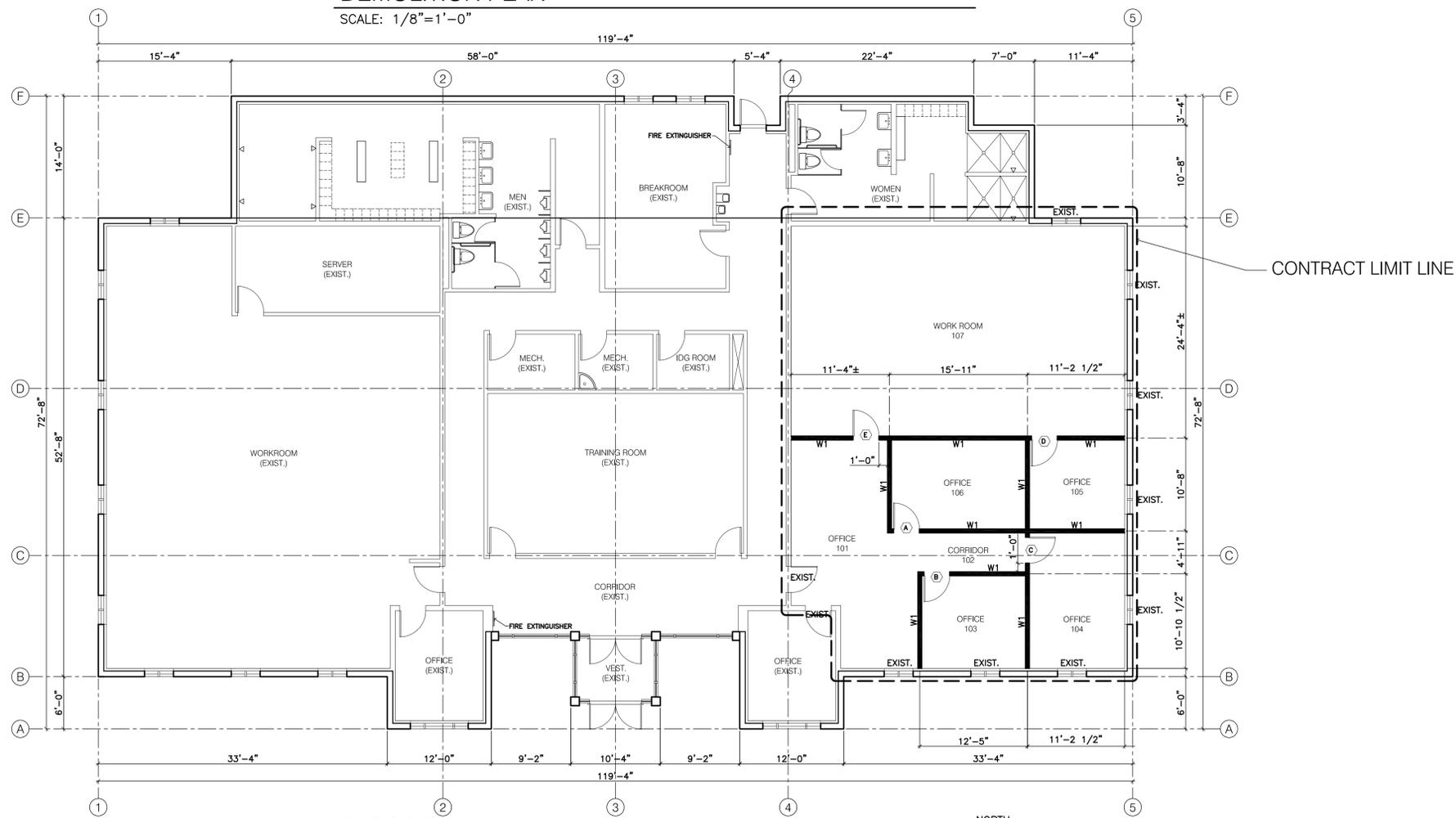
**THE FOLLOWING NOTES APPLY TO ALL WORK:**

- ALL DEMOLITION WORK SHALL BE CONDUCTED WITH THE GREATEST OF CARE. FIELD LOCATE ALL BUILDING STRUCTURAL ELEMENTS, CONSTRUCTION TO REMAIN, CONSTRUCTION TO BE REMOVED, UTILITY SYSTEMS AND CONTROLS, DEMOLITION REMOVAL ROUTES AND TRANSPORTATION RESOURCES ON AND OFF SITE, ETC., AS REQUIRED TO COMPLETE THE WORK IN ITS ENTIRETY.
- ALL EXISTING BUILDING COMPONENTS AFFECTED BY THE WORK REQUIRED TO COMPLETE THIS PROJECT INCLUDING, BUT NOT LIMITED TO, CONTROL DEVICES, PIPING, CONDUIT, FIXTURES, DEVICES, OUTLETS, ETC., FOR MECHANICAL (HVAC), CONTROLS, PIPING, ELECTRICAL POWER AND LIGHTING SHALL BE SAFELY REMOVED, RELOCATED, OR OTHERWISE MODIFIED AS REQUIRED WITH ALL ASSOCIATED WORK AND COSTS INCLUDED AS PART OF THIS PROJECT WORK.
- THE GENERAL CONTRACTOR WILL COORDINATE AND ASSURE THAT SUBCONTRACT TRADES INCLUDE THIS REQUIREMENT IN THE SCOPE OF THEIR WORK WHETHER SHOWN ON SPECIFIC TRADE DRAWINGS AND OTHER CONTRACT DOCUMENTS OR NOT.
- MAXIMUM CARE WILL BE EXERCISED TO PROTECT PERSONS WHO WILL USE THE EXISTING BUILDING DURING THE PERFORMANCE OF THIS WORK. THIS WILL INCLUDE, BUT NOT BE LIMITED TO, PROTECTIVE BARRIERS, NOTIFICATION SIGNAGE, ENVIRONMENTAL CONTROLS, AIR, DUST, AND NOISE CONTROL, ETC. ALL WORK SHALL BE ACCOMPLISHED WITHIN AND UTILIZING A PROTECTIVE, DUST-PROOF BARRIER BETWEEN THE EXISTING WORK TO REMAIN UNDISTURBED AND THE REQUIRED DEMOLITION AND/OR REMODELING WORK.
- FLOOR COVERING: CAREFULLY REMOVE EXISTING CARPET FLOOR COVERINGS AND BASE IN PREPARATION FOR REMODELING WORK AS FOLLOWS. LOCATE ALL NEW PARTITIONS. CUT THE EXISTING CARPET AT THE CENTER-LINE OF THE NEW PARTITIONS. ROLL THE CARPET AWAY FROM THE AREA REQUIRED TO CONSTRUCT THE NEW PARTITIONS. COMPLETE CONSTRUCTION WHERE AND AS SHOWN. PREPARE FLOORS TO RECEIVE RE-INSTALLATION OF THE EXISTING CARPET. CARPET INSTALLATION SHALL MATCH ADJACENT EXISTING CARPET.
- FLOOR BASE: EXISTING BASE SHALL REMAIN UNDISTURBED ON EXISTING WALLS TO MAXIMUM EXTENT POSSIBLE. REMOVE EXISTING BASE WHERE REQUIRED FOR NEW CONSTRUCTION. PROVIDE NEW RUBBER BASE TO MATCH EXISTING ON ALL NEW WALLS. MITER CORNERS OF NEW RUBBER BASE TO EXISTING BASE TO REMAIN.
- WALLS AND FINISHES: TYPICAL NEW WALL CONSTRUCTION: 3.5-INCH METAL STUDS PER SPECIFICATIONS SPACED AT MAXIMUM 16-INCHES ON CENTER. PROVIDE 5/8-INCH, TYPE "X" GYPSUM WALL BOARD ON BOTH SIDES. EXTEND WALLS TO THE STRUCTURE ABOVE AND ANCHOR. MATERIALS, CONSTRUCTION AND FINISHES SHALL CONFORM TO THE SPECIFICATIONS AND SHALL MATCH EXISTING ADJACENT SURFACES TO REMAIN. PAINT ALL NEW AND EXISTING WALLS WITHIN CONTRACT LIMIT LINES.
- CEILINGS: REMOVE EXISTING CEILING TO THE EXTENT SHOWN ON THE DRAWINGS. PROVIDE NEW 2-FOOT BY 4-FOOT GRID SUSPENDED CEILING SYSTEM AND LAY-IN ACOUSTIC TILE IN ACCORDANCE WITH THE SPECIFICATIONS TO MATCH SYSTEM IN ADJACENT AREAS.
- DOORS, FRAMES, AND DOOR HARDWARE: PROVIDE AND INSTALL NEW HOLLOW METAL DOOR FRAMES, WOOD DOORS AND DOOR HARDWARE TO MATCH EXISTING. ALSO REFER TO DRAWINGS AND SPECIFICATIONS.
- MECHANICAL (HVAC) SYSTEMS: MODIFY THE EXISTING AIR DISTRIBUTION SYSTEM AS SHOWN ON THE DRAWINGS AND AS SPECIFIED. RELOCATE EXISTING SYSTEM CONTROL DEVICES WHERE SHOWN OR AS REQUIRED. COORDINATE ALL WORK WITH RELATED TRADES INCLUDING ELECTRICAL.
- ELECTRICAL POWER AND LIGHTING SYSTEMS: PROVIDE NEW LIGHT FIXTURES, POWER SERVICE, SWITCHES, POWER/VOICE/DATA OUTLETS AND OTHER REQUIRED COMPONENTS WHERE SHOWN OR REQUIRED. COORDINATE ALL WORK WITH RELATED TRADES INCLUDING MECHANICAL.



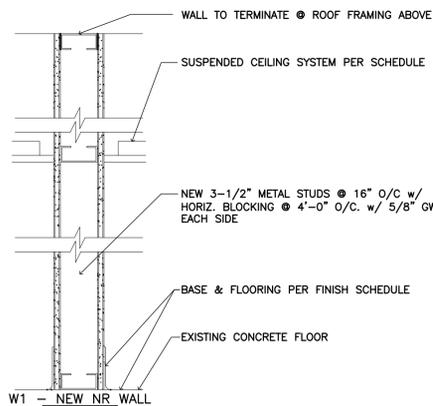
**DEMOLITION PLAN**

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



**FLOOR PLAN**

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



**W1 WALL TYPES**

SCALE: 1-1/2"=1'-0"

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
1332 DUEHL CIRCLE  
TAYLORSVILLE, UTAH 84123  
(801)262-9993 Fax: (801)262-3511

CONSULTANTS

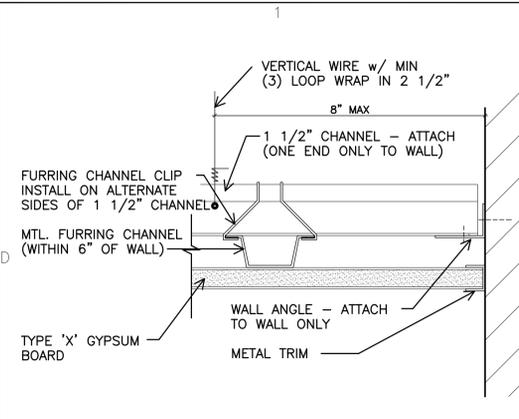
UTAH NATIONAL GUARD  
JLTC BLDG. #2  
Camp W. G. Williams  
Blairdale, Utah

MARK	DATE	DESCRIPTION

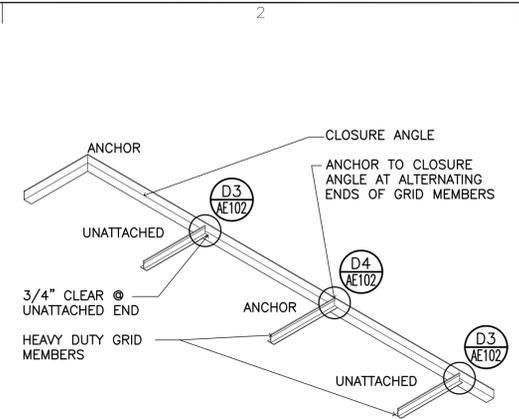
PROJECT NO:	08247480
DATE:	
CAD DWG FILE:	
DRAWN BY:	ew
CHECKED BY:	lks
DESIGNED BY:	lks
COPYRIGHT:	

SHEET TITLE  
FLOOR PLAN  
DEMOLITION  
PLAN

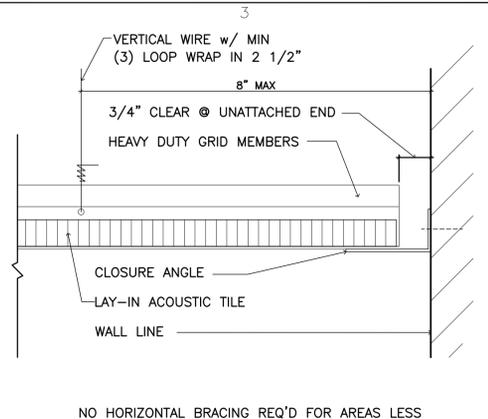
AE101



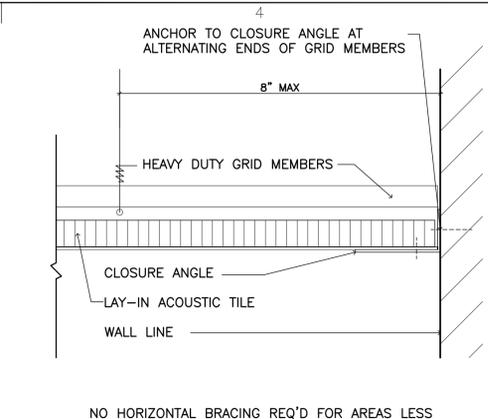
**D1** TYPICAL SUSPENDED GYPSUM BOARD CEILING  
SCALE: 6"=1'-0"



**D2** DETAIL  
NO SCALE



**D3** UNATTACHED SUSPENDED LAY-IN TILE CEILING  
SCALE: 6"=1'-0"

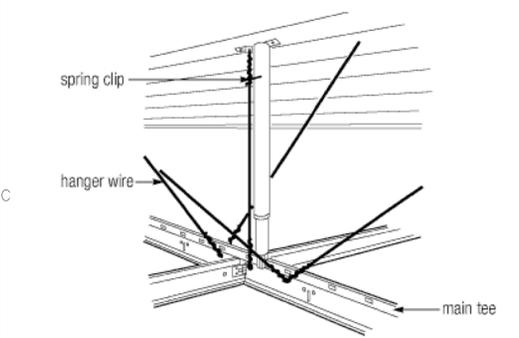


**D4** ATTACHED SUSPENDED LAY-IN TILE CEILING  
SCALE: 6"=1'-0"

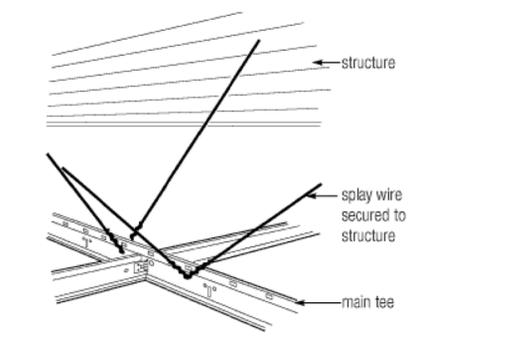
### REFLECTED CEILING LEGEND

- NEW 2'x4' SUSPENDED CEILING GRID  
SEE **D4** **D3** **D2**  
**AE102** **AE102** **AE102**
- NEW SUSPENDED GYPSUM CEILING GRID  
SEE **D1**  
**AE102**
- 2'x4' RECESSED FLUORESCENT FIXTURE
- 1'x4' SURFACE-MOUNTED FLUORESCENT FIXTURE
- EMERGENCY EXIT LIGHT
- RETURN AIR DIFFUSER
- SUPPLY AIR DIFFUSER

NOTES:  
\* SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR LIGHT LOCATION & INFORMATION  
\*\* SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR GRILLE AND DIFFUSER LOCATION & INFORMATION.

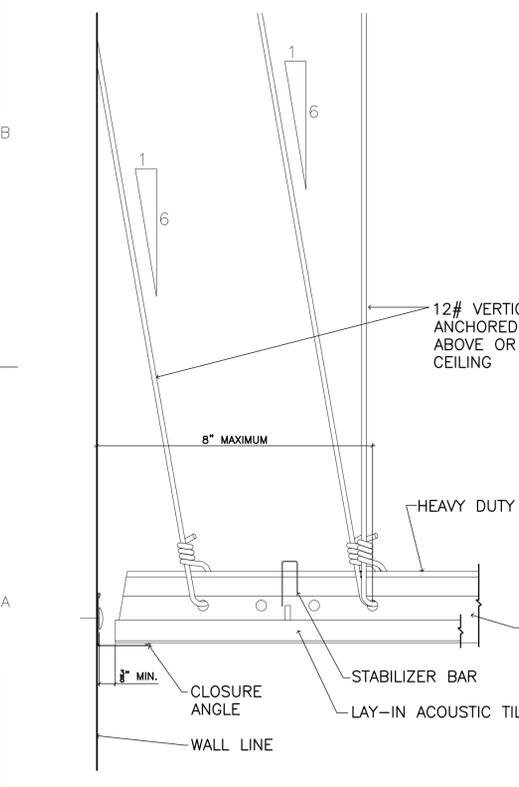


**C1** TYPICAL CEILING STIFFENER DETAIL  
NO SCALE

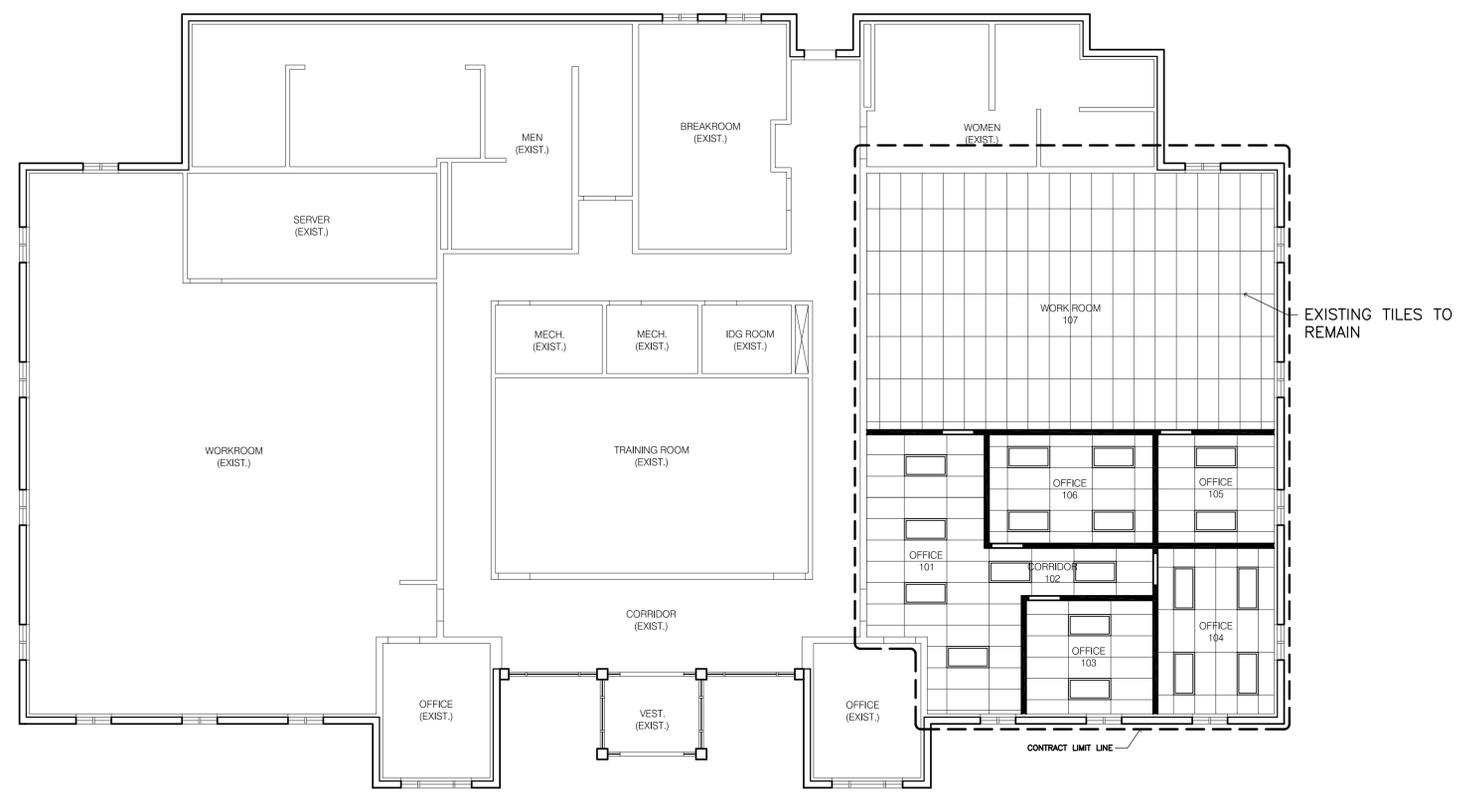


**C2** TYPICAL CEILING BRACING DETAIL  
SCALE: 6"=1'-0"

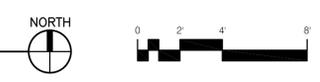
**NOTE!!**  
IBC 803.9.1.1  
SUSPENDED CEILING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF ASTM C635 AND ASTM 636



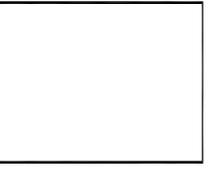
**A1** SUSPENDED LAY-IN TILE CEILING BRACING DETAIL  
SCALE: 6"=1'-0"



**REFLECTED CEILING PLAN**  
SCALE: 1/8"=1'-0"



L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
1332 DUEHL CIRCLE  
TAYLORSVILLE, UTAH 84123  
(801)262-9393 Fax: (801)262-3511



CONSULTANTS

UTAH NATIONAL GUARD  
**JLTC**  
**BLDG. #2**  
Camp W. G. Williams  
Blairdale, Utah

MARK	DATE	DESCRIPTION

PROJECT NO: 08247480  
DATE:                      
CAD DWG FILE:          
DRAWN BY: ew  
CHECKED BY: lks  
DESIGNED BY: lks  
COPYRIGHT:              
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORENSEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE  
**REFLECTED CEILING PLAN**

**AE102**

# ROOM FINISH SCHEDULE

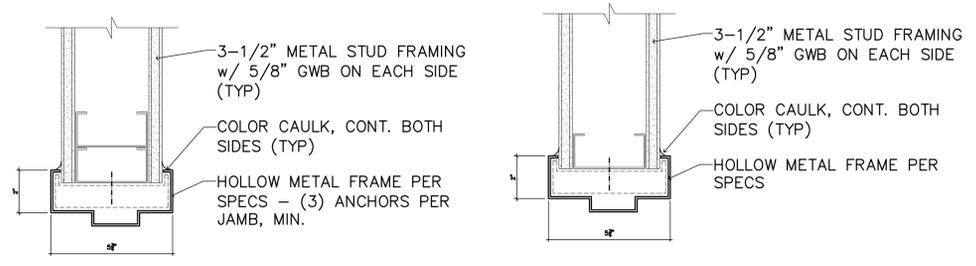
ROOM No.	ROOM NAME	FLOOR		BASE		NORTH WALL		SOUTH WALL		EAST WALL		WEST WALL		CEILING		DOOR		DOOR FRAME		NOTES			
		MATL	FINISH	MATL	FINISH	MATL	FINISH	MATL	FINISH	MATL	FINISH	MATL	FINISH	MATL	FINISH	HEIGHT	MATL	FINISH	MATL		FINISH		
101	OFFICE	CPT	A	RB	A	GWB	B	GWB	B	GWB	B	GWB	B	ACST	A	8'-0"	SCWD	C	MTL	D	FN1		
102	CORRIDOR	CPT	A	RB	A	GWB	B	GWB	B	GWB	B	GWB	B	-	-	ACST	A	8'-0"	SCWD	C	MTL	D	FN1
103	OFFICE	CPT	A	RB	A	GWB	B	GWB	B	GWB	B	GWB	B	ACST	A	8'-0"	SCWD	C	MTL	D	FN1		
104	OFFICE	CPT	A	RB	A	GWB	B	GWB	B	GWB	B	GWB	B	ACST	A	8'-0"	SCWD	C	MTL	D	FN1		
105	OFFICE	CPT	A	RB	A	GWB	B	GWB	B	GWB	B	GWB	B	ACST	A	8'-0"	SCWD	C	MTL	D	FN1		
106	OFFICE	CPT	A	RB	A	GWB	D	GWB	B	GWB	B	GWB	B	ACST	A	8'-0"	SCWD	C	MTL	D	FN1		
107	WORK ROOM	CPT	A	RB	A	GWB	D	GWB	B	GWB	B	GWB	B	ACST	A	8'-0"	SCWD	C	MTL	D	FN1, FN2		

<b>FINISH NOTES:</b> FN1 EXISTING RUBBER BASE TO REMAIN. ADD MATCHING 6" HIGH RUBBER BASE TO ALL NEW WALLS. FN2 EXISTING CEILING TO REMAIN. FILL IN CEILING UP TO NEW WALL.	<b>FINISHES:</b> A. NO FINISH AFTER INSTALLATION - CLEAN ONLY B. PAINT IN ACCORDANCE WITH THE SPECIFICATIONS. C. MATCH FINISH OF EXISTING INTERIOR DOORS D. PAINT TO MATCH FINISH OF EXISTING DOOR FRAMES	<b>MATERIAL ABBREVIATIONS:</b> ACST ACOUSTIC TILE ALUM ALUMINUM CONC CONCRETE CMU CONCRETE MASONRY UNIT CPT CARPET CT CERAMIC TILE E EXISTING GLS GLASS GWB GYPSUM WALL BOARD MTL METAL N NONE RB RUBBER RPEM RUBBER PARQUET ENTRANCE MAT SCWD SOLID CORE WOOD STRUCT STRUCTURE VCT VINYL COMPOSITION TILE WD WOOD
---	---	---

# DOOR & FRAME SCHEDULE

DOOR No.	NEW OR EXIST.	ROOM NAME	DOOR				FRAME				HWWARE GROUP	LABEL	REMARKS	
			TYPE	WIDTH	HEIGHT	THICK.	MATL.	TYPE	MATL.	DETAILS				
										HEAD				JAMB
A	NEW	OFFICE 106		3'-0"	7'-0"	1 3/4"	SCWD		MTL	C5	C4	-		
B	NEW	OFFICE 103		3'-0"	7'-0"	1 3/4"	SCWD		MTL	C5	C4	-		
C	NEW	OFFICE 104		3'-0"	7'-0"	1 3/4"	SCWD		MTL	C5	C4	-		
D	NEW	OFFICE 105		3'-0"	7'-0"	1 3/4"	SCWD		MTL	C5	C4	-		
E	NEW	WORK ROOM 107		3'-0"	7'-0"	1 3/4"	SCWD		MTL	C5	C4	-		

NOTES:



L. K. SORENSEN ASSOCIATES, INC.  
 ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
 1332 DUEHL CIRCLE  
 TAYLORSVILLE, UTAH 84123  
 (801)262-9993 Fax (801)262-3511



CONSULTANTS

UTAH NATIONAL GUARD  
**JLTC BLDG. #2**  
 Camp W. G. Williams  
 Blairdale, Utah

MARK	DATE	DESCRIPTION

PROJECT NO: 08247480  
 DATE:  
 CAD DWG FILE:  
 DRAWN BY: ew  
 CHECKED BY: lks  
 DESIGNED BY: lks  
 COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAWS AND IS THE PROPERTY OF L. K. SORENSEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE  
**SCHEDULES  
 DOOR DETAILS**

**AE601**

## General Mechanical Notes

- MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER TRADES.
- INSTALLATION SHALL BE IN CONFORMANCE WITH THE IBC, 2006 EDITION; IMC 2006 EDITION; IFGC, 2006 EDITION AND THE NEC, 2005 EDITION; ALL AS ADOPTED AND AMENDED BY THE STATE OF UTAH AND THE LOCAL JURISDICTION.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP AND REMOVAL OF MECHANICAL DEBRIS.
- ARRANGE AND SCHEDULE INSPECTIONS IN A TIMELY MANNER WITH THE CONSTRUCTION SCHEDULE.
- UNLESS NOTED OTHERWISE, ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED STEEL AND SHALL CONFORM WITH THE SMACNA AND ASHRAE STANDARDS FOR THE PRESSURE CLASS OF DUCT BEING INSTALLED.
- UNLESS NOTED OTHERWISE, ALL SUPPLY AIR AND RETURN AIR DUCTWORK INSTALLED IN UNCONDITIONED AREAS OF THE BUILDING (THIS EXCLUDES RETURN AIR PLENUMS) SHALL BE INSULATED WITH 1" THICK FOIL FACED DUCT WRAP.
- MECHANICAL EQUIPMENT, MECHANICAL PIPING AND DUCTING SHALL BE SEISMICALLY BRACED WHERE REQUIRED IN CONFORMANCE WITH THE IBC, 2006 EDITION.
- REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE EXACT LOCATION OF CEILING REGISTERS, GRILLES AND DIFFUSERS.
- UNLESS NOTED OTHERWISE, ALL DUCT SIZES SHOWN ARE INSIDE (FINISHED) DIMENSIONS. INCREASE DUCT SIZES FOR LINER TYPE INSULATION.

- ALL INTERIOR WORK, FRAMING, AND INTERIOR FINISH WORK IS TO BE PERFORMED BY OTHERS UNDER THE DIRECTION OF THE PROJECT ARCHITECT AND THE SUPERVISION OF THE GENERAL CONTRACTOR.
- LOW PRESSURE INSULATED FLEXIBLE DUCTWORK USED FOR RUN-OUTS TO DIFFUSERS AND GRILLES SHALL BE LIMITED TO 60' IN LENGTH AND SHALL ONLY BE USED FOR THE FINAL CONNECTION OF RUN-OUT TO DIFFUSERS AND GRILLES.
- ALL MECHANICAL EQUIPMENT SHALL BE UL LISTED.
- ALL SUPPLY AIR DIFFUSERS SHOWN THIS SHALL BE BUILDING STANDARD TYPE SD-1, U.N.O. NECK SIZE EQUAL BRANCH DUCT SIZE. SEE EQUIPMENT SCHEDULE.
- ALL RETURN AIR GRILLES SHOWN THIS SHALL BE BUILDING STANDARD TYPE RG-1, U.N.O. SEE EQUIPMENT SCHEDULE.
- ALL RETURN AIR GRILLES SHOWN THIS SHALL BE BUILDING STANDARD TYPE RG-2, U.N.O. SEE EQUIPMENT SCHEDULE.
- ALL EXHAUST AIR GRILLES SHOWN THIS SHALL BE BUILDING STANDARD TYPE EG-1, U.N.O. SEE EQUIPMENT SCHEDULE.

## Mechanical Symbols and Abbreviations

- |  |                             |                                |
|--|-----------------------------|--------------------------------|
|  | SUPPLY AIR DIFFUSER         | A.F.F. = ABOVE FINISH FLOOR    |
|  | RETURN AIR GRILLE           | ARCH. = ARCHITECT              |
|  | RETURN AIR GRILLE           | CU = CONDENSING UNIT           |
|  | RA GRILLES WITH SOUND BOOT  | DN = DOWN                      |
|  | EXHAUST AIR GRILLE          | E.A. = EXHAUST AIR             |
|  | ROUND BRANCH DUCT           | EF = EXHAUST FAN               |
|  | FLEXIBLE ROUND BRANCH DUCT  | (E) = EXISTING                 |
|  | SUPPLY AIR DUCT TURNED UP   | FD = FIRE DAMPER               |
|  | RETURN AIR DUCT TURNED DOWN | F/S = FIRE / SMOKE DAMPER      |
|  | EXH. AIR DUCT TURNED DOWN   | FURN. = FURNACE                |
|  | THERMOSTAT                  | G.C. = GENERAL CONTRACTOR      |
|  | SENSOR                      | G.I. = GALVANIZED IRON / STEEL |
|  |                             | HWR = HEATING WATER RETURN     |
|  |                             | HWS = HEATING WATER SUPPLY     |
|  |                             | MAU = MAKE-UP AIR UNIT         |
|  |                             | O.A. = OUTSIDE AIR             |
|  |                             | O.C. = ON CENTER               |
|  |                             | RA = RETURN AIR                |
|  |                             | SA = SUPPLY AIR                |
|  |                             | UH = UNIT HEATER               |

## Intent of Project

THE EXISTING 8.5 TON PACKAGED GAS / ELECTRICAL CURB MOUNTED ROOFTOP UNIT TO REMAIN. THE DUCTWORK IS TO BE MODIFIED TO ACCOMMODATE THE NEW FLOOR PLAN.

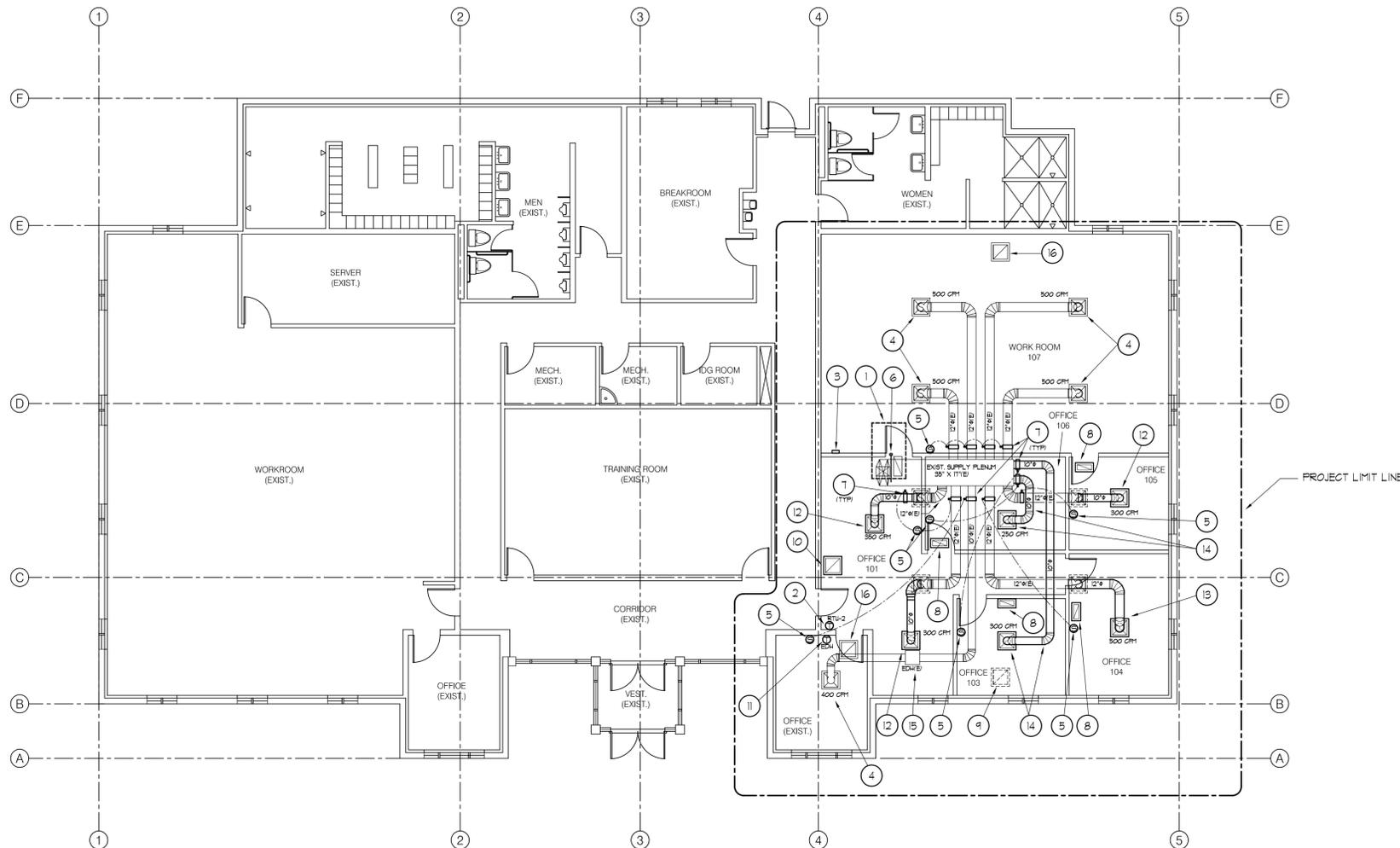
A VVT SYSTEM OF ELECTRONIC ZONE DAMPERS IS TO BE INSTALLED TO PROVIDE ZONE CONTROL. A BYPASS DUCT AND DAMPER IS TO BE INSTALLED.

THE SYSTEM IS TO BE AIR BALANCED AFTER THE DUCTWORK HAS BEEN MODIFIED.

NOTE: DESIGN IS BASED ON AS-BUILT INFORMATION. CONTRACTORS SHALL FIELD VERIFY ALL DUCT SIZES AND EQUIPMENT LOCATIONS.

## Keyed Reference Notes

- EXISTING 8.5 TON PACKAGED GAS / ELECTRICAL CURB MOUNTED ROOFTOP UNIT TO REMAIN. FIELD VERIFY LOCATION.
- EXISTING THERMOSTAT FOR EXISTING ROOFTOP UNIT. CONTROL SYSTEM TO BE MODIFIED TO VVT TYPE AS MADE BY INET. CONTROLS CONTRACTOR TO REMOVE OR REPLACE THERMOSTAT AS REQUIRED.
- PROVIDE NEW CONTROL PANEL FOR VVT SYSTEM SEE NOTE 2 AND SPECIFICATIONS. FIELD VERIFY BEST LOCATION.
- EXISTING DIFFUSER TO REMAIN. BALANCE TO CFM SHOWN.
- TYPICAL NEW VVT ZONE SENSOR FOR NEW CONTROL SYSTEM. DASHED LINE INDICATES DAMPER TO CONTROL. FIELD VERIFY BEST LOCATION.
- SHEET METAL CONTRACTOR TO INSTALL 30" X 20" (OR EQUIVALENT) BYPASS DUCT AND OPPOSED BLADE DAMPER. FIELD VERIFY EXISTING DUCT SIZES TO DETERMINE BEST SIZE FOR NEW DUCT. CONTROL CONTRACTOR TO PROVIDE CONTROL OVER THE DAMPER.
- INSTALL NEW VVT DAMPER IN ROUND DUCT. TYPICAL 11 PLACES. FIELD VERIFY SIZE OF EXISTING DUCT.
- PROVIDE 24" X 12" EGGRATE STYLE RETURN AIR GRILLE IN NEW LAY-IN CEILING. GRILLE TO BE NAILOR #61 ECA OR APPROVED ALTERNATE BY CARNES, TITUS, OR KRUEGER.
- RELOCATE EXISTING 24" X 24" RETURN AIR GRILLE. SEE NOTE 10 FOR NEW LOCATION.
- INSTALL EXISTING 24" X 24" RETURN AIR GRILLE HERE. SEE NOTE 9 FOR PRESENT LOCATION.
- EXISTING THERMOSTAT FOR EXISTING ELECTRIC DUCT HEATER FOR THIS OFFICE. THERMOSTAT TO BE MODIFIED BY CONTROLS CONTRACTOR AS REQUIRED FOR NEW VVT CONTROL SYSTEM. SEE NOTE 15 FOR DUCT HEATER LOCATION.
- REMOVE EXISTING DIFFUSER WITH 12" ROUND NECK LOCATED IN THIS BRANCH DUCT. INSTALL 12" X 10" ROUND REDUCER AND RUN NEW 10" ROUND DUCT TO NEW DIFFUSER AS SHOWN. DIFFUSER NECK SIZE EQUALS NEW BRANCH DUCT SIZE. DIFFUSER TO BE NAILOR #4200 RNSL-24 STANDARD 4-WAY LAY-IN TYPE. APPROVED ALTERNATE BY CARNES, TITUS, OR KRUEGER.
- REMOVE EXISTING DIFFUSER WITH 12" ROUND NECK LOCATED IN THIS BRANCH DUCT. EXTEND NEW 12" ROUND DUCT TO NEW DIFFUSER AS SHOWN. DIFFUSER NECK SIZE EQUALS NEW BRANCH DUCT SIZE. DIFFUSER TO BE NAILOR #4200 RNSL-24 STANDARD 4-WAY LAY-IN TYPE. APPROVED ALTERNATE BY CARNES, TITUS, OR KRUEGER.
- RUN NEW 12" ROUND DUCT FROM EXISTING SUPPLY PLENUM TO NEW DIFFUSER AS SHOWN. DIFFUSER NECK SIZE EQUALS NEW BRANCH DUCT SIZE. DIFFUSER TO BE NAILOR #4200 RNSL-24 STANDARD 4-WAY LAY-IN TYPE. APPROVED ALTERNATE BY CARNES, TITUS, OR KRUEGER.
- EXISTING ELECTRIC DUCT HEATER. SEE NOTE 11 FOR ADDITIONAL INFORMATION.
- EXISTING 24" X 24" RETURN AIR GRILLE TO REMAIN.

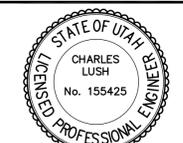


## Mechanical Floor Plan

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



L.K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801) 478-0800 Fax: (801) 478-0816



CONSULTANTS

**ACE**  
**Advanced Concept Engineering, Inc.**  
11851 VISTA GLEN CT., SANDY, UT 84092  
(801) 572-3055 FAX: (801) 572-3075

UTAH NATIONAL GUARD  
JLTC BLDG. #2  
Camp W. G. Williams  
Bluffdale, Utah

MARK	DATE	DESCRIPTION

PROJECT NO:	0000
DATE:	08/04/08
CAD DWG FILE:	
DRAWN BY:	ACE
CHECKED BY:	CL
DESIGNED BY:	CL
COPYRIGHT:	

SHEET TITLE  
**MECHANICAL FLOOR PLAN**

**M101**

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
<b>REFERENCE AND LINE SYMBOLS</b>	
	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ROOM OR SPACE NUMBER.
	KEYNOTE INDICATOR.
	REVISION INDICATOR.
	EQUIPMENT INDICATOR.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING.
	BREAK, ROUND.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE.
<b>WIRING METHODS</b>	
	WIRING.
	WIRING TURNED UP OR TOWARDS OBSERVER.
	WIRING TURNED DOWN OR AWAY FROM OBSERVER.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN SECTION 16120.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN SECTION 16120.
	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = : CATV = CABLE TELEVISION CCTV = CLOSED CIRCUIT TELEVISION FA = FIRE ALARM FO = FIBER OPTICS I = INTERCOM NC = NURSE CALL P = POWER RC = RIGID CONDUIT S = SOUND T = TELEPHONE TV = TELEVISION
	OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
	LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	JUNCTION BOX.
	JUNCTION BOX, SYSTEMS FURNITURE COMMUNICATION CONNECTION.
	JUNCTION BOX, SYSTEMS FURNITURE POWER CONNECTION.
	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	EARTH GROUND (ONE-LINE DIAGRAM).
	JUNCTION BOX, CEILING.
	LADDER RACK.
<b>STRUCTURED CABLING</b>	
	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/DATA COMMUNICATION.
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.
	LAN RACK, FLOOR STANDING.
<b>LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)</b>	
	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
<b>LIGHTING CONTROL</b>	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
<b>WIRING DEVICES</b>	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
	RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
	SWITCH, SINGLE POLE ("X" INDICATES FIXTURES CONTROLLED).
	SWITCH, THREE-WAY ("X" INDICATES FIXTURES CONTROLLED).
	SWITCH, FOUR-WAY ("X" INDICATES FIXTURES CONTROLLED).
<b>FIRE ALARM</b>	
	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
	CONTROL MODULE.
	MONITOR MODULE.
	FIRE ALARM MANUAL PULL STATION.
	SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE.
	DETECTOR, SMOKE.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
	DETECTOR, HEAT.
	STROBE. SUBSCRIPT INDICATES CANDELA RATING.
	ALARM, HORN/SPEAKER, WEATHERPROOF.
	ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING.
	DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	SMOKE DAMPER.
	FIRE AND SMOKE DAMPER.
	ALARM, HORN/STROBE, ONE ASSEMBLY, CEILING MOUNTED.

ABBREVIATIONS			
NOTE: ALL ABBREVIATIONS MAY NOT BE USED.			
1P	SINGLE POLE	KV	KILOVOLT
1PH	SINGLE-PHASE	KVA	KILOVOLT AMPERE
1WAY	ONE-WAY	KVAR	KILOVOLT AMPERE REACTIVE
2/C	TWO-CONDUCTOR	KW	KILOWATT
2WAY	TWO-WAY	KWH	KILOWATT HOUR
3/C	THREE-CONDUCTOR	LED	LIGHT EMITTING DIODE
3PH	THREE-PHASE	LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
3WAY	THREE-WAY	LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
40UT	QUADRUPLE RECEPTACLE OUTLET	LPS	LOW PRESSURE SODIUM
4PDT	FOUR-POLE DOUBLE THROW	LRA	LOCKED ROTOR AMPS
4PST	FOUR-POLE SINGLE THROW	LTG	LIGHTING
4W	FOUR-WIRE	LV	LOW VOLTAGE
4WAY	FOUR-WAY	MATV	MASTER ANTENNA TELEVISION SYSTEM
A	ABOVE COUNTER	MAX	MAXIMUM
AC	ARMORED CABLE	MC	METAL CLAD
ADA	AMERICANS WITH DISABILITIES ACT	MCA	MINIMUM CIRCUIT AMPS
ADJ	ADJACENT	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AFG	ABOVE FINISHED GRADE	MCP	MOTOR CIRCUIT PROTECTION
AIC	AMPERE INTERRUPTING CAPACITY	MDP	MAIN DISTRIBUTION PANEL
ALUM	ALUMINUM	MG	MOTOR GENERATOR
AMP	AMPERE	MH	MANHOLE
ANN	ANNUNCIATOR	MIN	MINIMUM
AP	ACCESS POINT (WIRELESS DATA)	MLO	MAIN LUGS ONLY
AR	AS REQUIRED	MOCP	MAXIMUM OVERCURRENT PROTECTION
ASC	AMPS SHORT CIRCUIT	NA	NOT APPLICABLE
ATS	AUTOMATIC TRANSFER SWITCH	NC	NORMALLY CLOSED
AV	AUDIO VISUAL	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
BB XFMR	BUCK-BOOST TRANSFORMER	NFC	NATIONAL FIRE CODE
C	CEILING MOUNTED	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CATV	COMMUNITY ANTENNA TELEVISION	NIC	NOT IN CONTRACT
CB	CIRCUIT BREAKER	NL	NIGHT LIGHT
CCBA	CUSTOM COLOR AS SELECTED BY ARCHITECT	NO	NORMALLY OPEN
CCTV	CLOSED CIRCUIT TELEVISION	NTS	NOT TO SCALE
CFBA	CUSTOM FINISH AS SELECTED BY ARCHITECT	OC	OVER CURRENT PROTECTION
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED	OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED	OF/OI	OWNER FURNISHED/OWNER INSTALLED
CKT	CIRCUIT	OPF	OBTAIN FROM PLANS
CM	CONSTRUCTION MANAGER	OH DR	OVERHEAD (COILING) DOOR
CND	CONDUIT	OL	OVERLOAD
CO	CONVENIENCE OUTLET	PIB	PUSHBUTTON
COR	CONTRACTING OFFICER'S REPRESENTATIVE	PF	POWER FACTOR
CP	CONTROL PANEL	PH	PHASE
CT	CURRENT TRANSFORMER	PNL	PANEL
CTV	CABLE TELEVISION	PT	POTENTIAL TRANSFORMER
CU	COPPER	PTZ	PAN/TILT/ZOOM
dba	UNIT OF SOUND LEVEL	QTY	QUANTITY
DPDT	DOUBLE POLE DOUBLE THROW	R	REMOVE
DS	DISCONNECT SWITCH	RCP	RELOCATED CEILING PLAN
EA	EACH	REL	RELOCATED
EM	EMERGENCY	RMC	RIGID METAL CONDUIT
EMT	ELECTRICAL METALLIC TUBING	RNC	RIGID NONMETALLIC CONDUIT
ENT	ELECTRICAL NONMETALLIC TUBING	RPM	REVOLUTIONS PER MINUTE
EPO	EMERGENCY POWER OFF EQUIPMENT	RR	REMOVE AND RELOCATE
EQUIP	EXISTING	SCA	SHORT CIRCUIT AMPS
EX	FURNITURE MOUNTED	SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
F	FIRE ALARM	SF	SQUARE FOOT (FEET)
FA	FIRE ALARM CONTROL PANEL	SFBA	STANDARD FINISH AS SELECTED BY ARCHITECT
FCP	FIRE ALARM CONTROL PANEL	SPDT	SINGLE POLE, DOUBLE THROW
FLA	FULL LOAD AMPS	SPEC	SPECIFICATION
FMC	FLEXIBLE METAL CONDUIT	SPST	SINGLE POLE, SINGLE THROW
FOB	FREIGHT ON BOARD	S/S	START/STOP
FVNR	FULL VOLTAGE NON-REVERSING	ST	SINGLE THROW
FVR	FULL VOLTAGE REVERSING	SWBD	SWITCHBOARD
G	GROUND	SWGR	SWITCHGEAR
GEN	GENERATOR	TL	TWIST LOCK
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TP	TELEPHONE POLE
GFP	GROUND FAULT PROTECTION	TP	TWISTED PAIR
HD	HEAVY DUTY	TTB	TELEPHONE TERMINAL BOARD
HID	HIGH INTENSITY DISCHARGE	TV	TELEVISION
HOA	HAND-OFF-AUTOMATIC	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
HP	HORSE POWER	TYF	TYPICAL
HPF	HIGH POWER FACTOR	UF	UNDERFLOOR
HPS	HIGH PRESSURE SODIUM	UGND	UNDERGROUND
HV	HIGH VOLTAGE	UPS	UNINTERRUPTIBLE POWER SUPPLY
HZ	HERTZ	V	VOLTS
IG	ISOLATED GROUND	VA	VOLT AMPERE
IMC	INTERMEDIATE METAL CONDUIT	VFC/VFD	VARIABLE FREQUENCY MOTOR CONTROLLER
IN/IS	INSULATED/ISOLATED	W/	WITH
I/O	INPUT/OUTPUT	W/O	WITHOUT
IR	INFRARED	WP	WEATHERPROOF
J-BOX	JUNCTION BOX	XFMR	TRANSFORMER

## GENERAL ELECTRICAL NOTES

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

## DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

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

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

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

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

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

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

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

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

## ELECTRICAL SHEET INDEX

SHEET NO	SHEET TITLE
EE001	SYMBOL LEGEND & SHEET INDEX
EE501	TYPICAL MOUNTING HEIGHT DETAILS
EE502	DETAILS
ED101	DEMOLITION PLAN
EP101	POWER PLAN
EL101	LIGHTING PLAN
EL601	LIGHTING FIXTURE SCHEDULE
FA101	FIRE ALARM PLAN

L. L. SORESEN ASSOCIATES, INC.  
ARCHITECTS/PLANNERS/LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816

CONSULTANTS

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

UTAH NATIONAL GUARD

JLTC BLDG. #2

Camp W. G. Williams  
Bluffdale, Utah

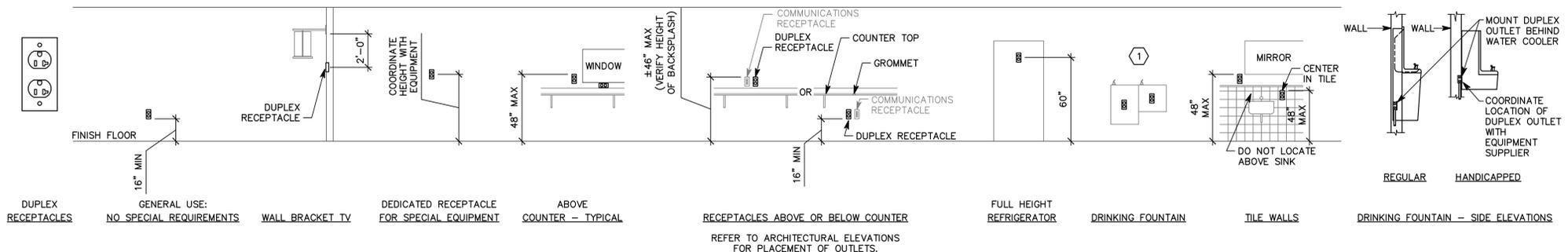
MARK	DATE	DESCRIPTION

PROJECT NO:	0000
DATE:	
CAD DWG FILE:	46EE-001.dwg
DRAWN BY:	PSS
CHECKED BY:	PEJ
DESIGNED BY:	DLA
COPYRIGHT:	
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAW AND IS THE PROPERTY OF L. L. SORESEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.	

SHEET TITLE

SYMBOL LEGEND & SHEET INDEX

EE001



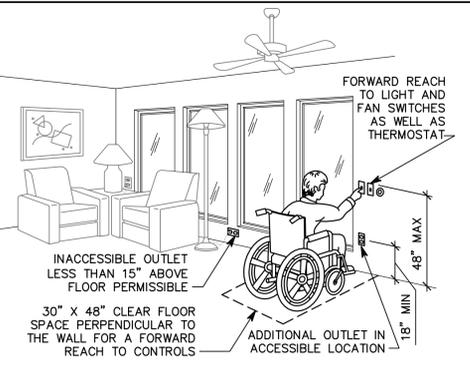
**D1** RECEPTACLE MOUNTING DETAILS  
NTS

**GENERAL SHEET NOTES**

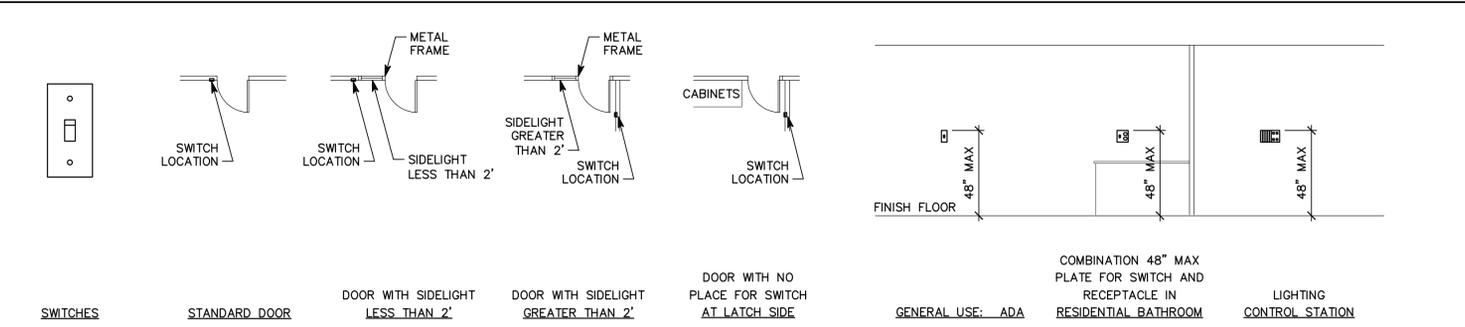
1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:  
1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).  
2 - EQUIPMENT SHOP DRAWINGS.  
3 - FIELD INSTRUCTIONS.
2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS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

**SHEET KEYNOTES**

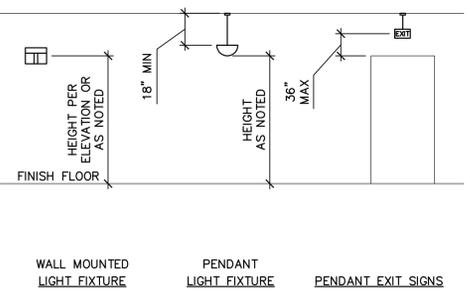
1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5 PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO NFPA 72.
4. LOCATE SMOKE DETECTOR ANYWHERE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



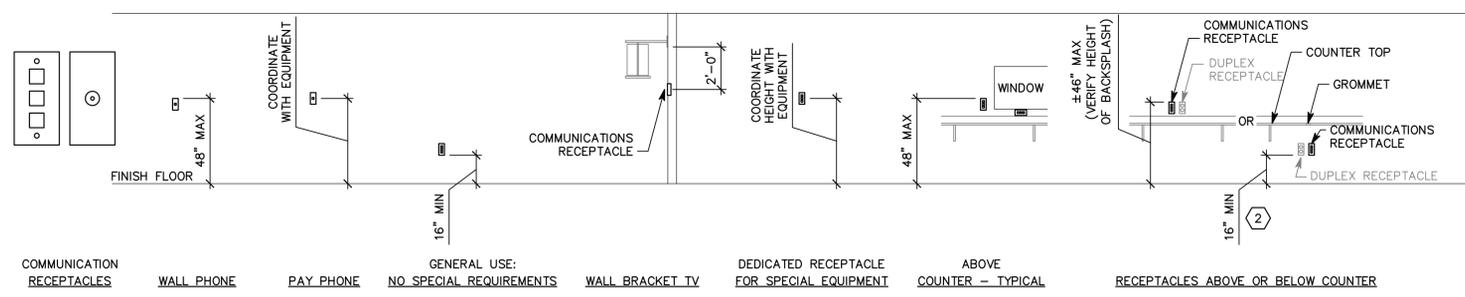
**C1** ADA DETAIL  
NTS



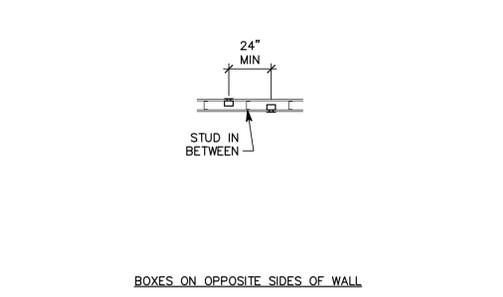
**C2** SWITCH MOUNTING DETAILS  
NTS



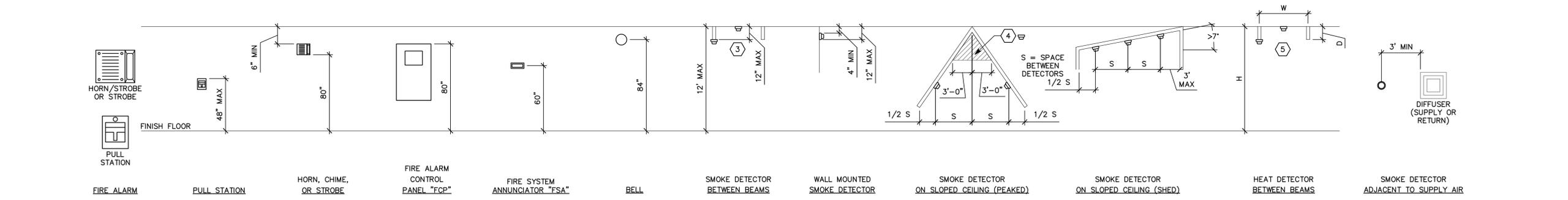
**B1** LIGHTING MOUNTING DETAILS  
NTS



**B2** COMMUNICATION MOUNTING DETAILS  
NTS



**B5** BOX MOUNTING DETAILS  
NTS



**A1** FIRE ALARM MOUNTING DETAILS  
NTS

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS/PLANNERS/LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816

CONSULTANTS

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

UTAH NATIONAL GUARD

JLTC BLDG. #2

Camp W. G. Williams  
Bluffdale, Utah

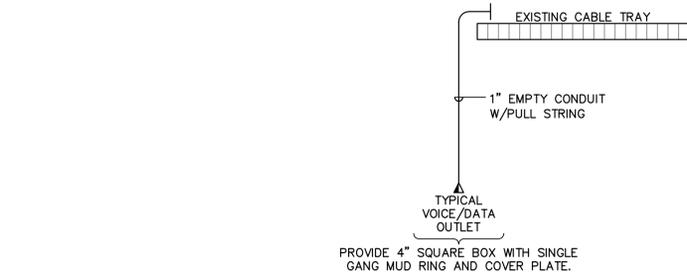
MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:  
CAD DWG FILE: 46EE-501.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

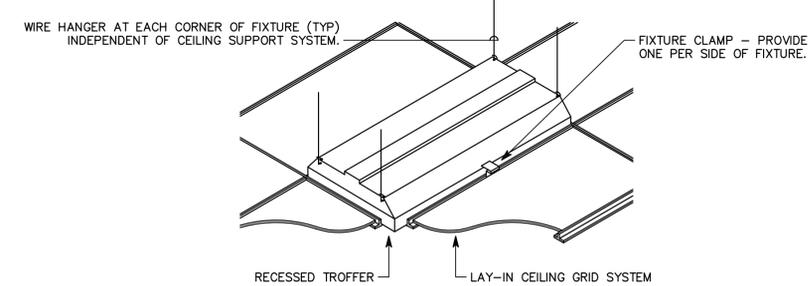
SHEET TITLE

TYPICAL MOUNTING HEIGHT DETAILS

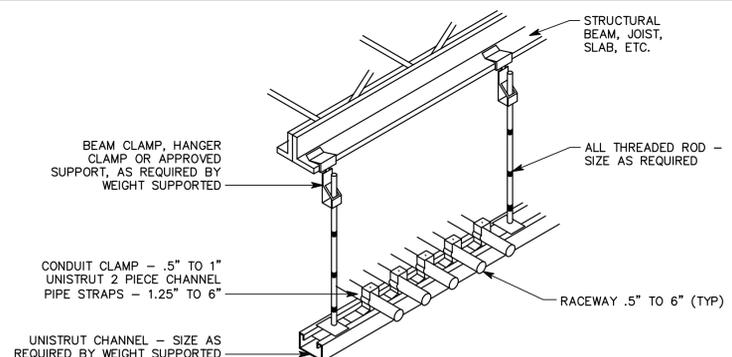
EE501



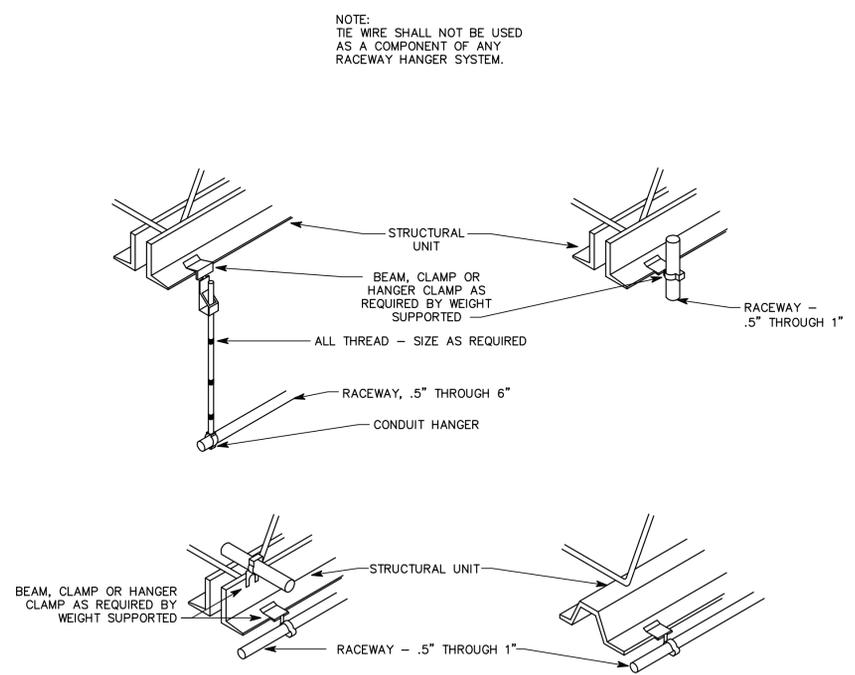
**C3** COMMUNICATIONS CONDUIT RISER DIAGRAM  
NO SCALE



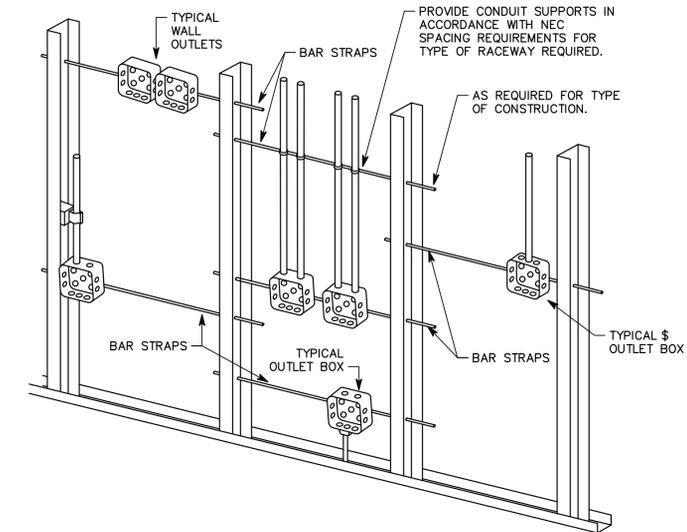
**B2** RECESSED FIXTURE MOUNTING DETAIL  
NTS



**A2** TYPICAL CONDUIT RACK DETAIL  
NTS



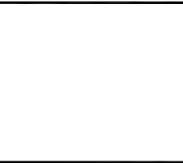
**C4** TYPICAL RACEWAY SUPPORT METHODS DETAIL  
NTS



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

**A4** TYPICAL ROUGH-IN REQUIREMENTS DETAIL  
NTS

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816



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

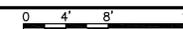
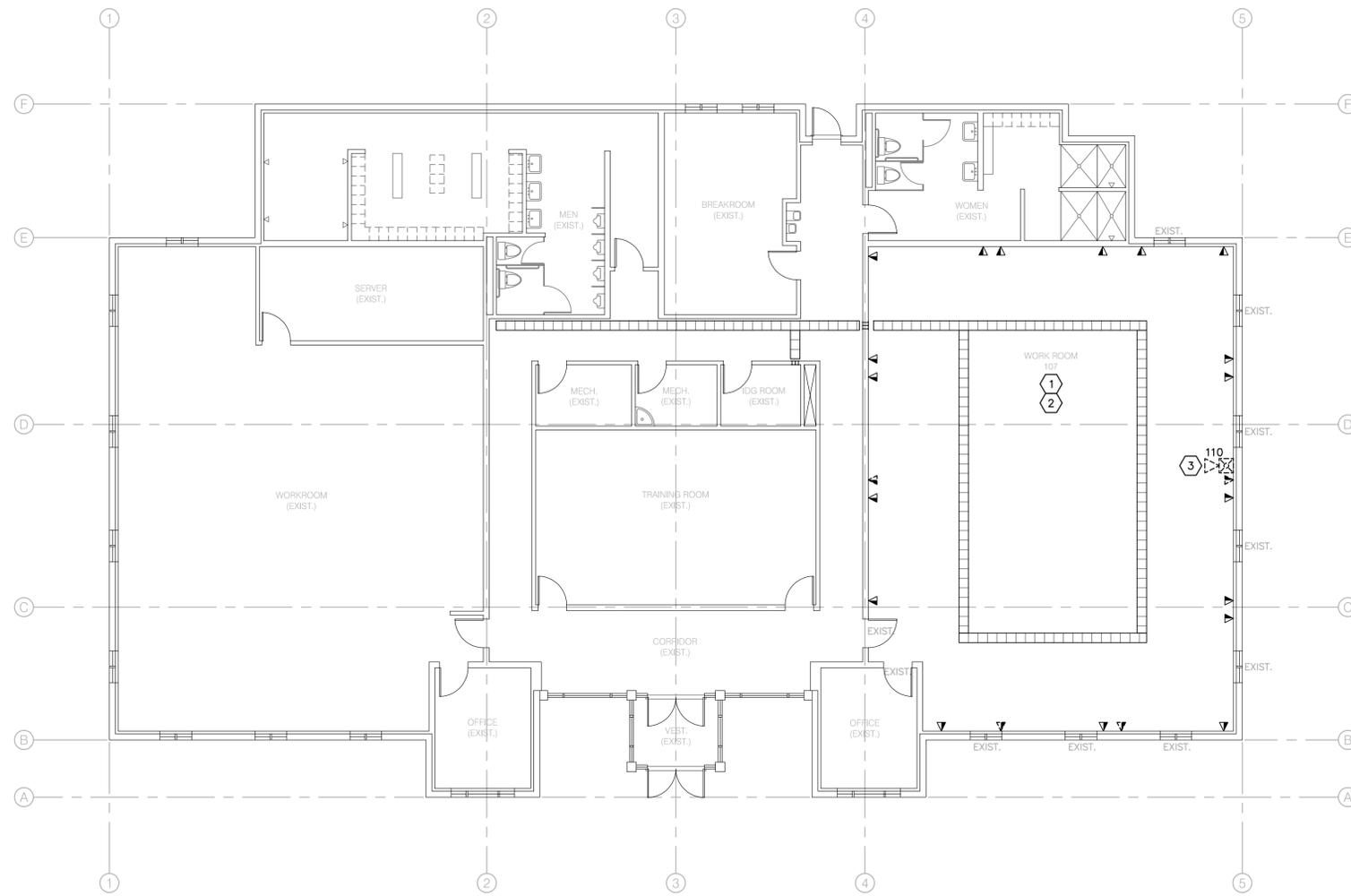
UTAH NATIONAL GUARD  
**JLTC BLDG. #2**  
Camp W. G. Williams  
Bluffdale, Utah

MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:  
CAD DWG FILE: 46EE-502.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE  
**DETAILS**

**EE502**



**(B1) DEMOLITION PLAN**  
1/8" = 1'-0"

**GENERAL SHEET NOTES**

1. PROVIDE GROUNDING CONDUCTORS PER NEC FOR CIRCUITS AFFECTED BY THIS WORK.
2. RELOCATE AND/OR REROUTE EXISTING CONDUIT, WIRING OR OTHER EQUIPMENT THAT CONFLICTS WITH DEMOLITION OR NEW CONSTRUCTION.
3. REMOVE ALL CONDUIT, WIRING AND CABLING THAT IS ABANDONED OR WILL BECOME ABANDONED AS A RESULT OF THIS PROJECT.
4. WHERE DEVICES, LIGHT FIXTURES OR OTHER EQUIPMENT ARE BEING REMOVED, REMOVE ASSOCIATED CONDUIT AND WIRING TO PANEL BOARD OR FIRST ACTIVE JUNCTION BOX.

**SHEET KEYNOTES**

1. ALL EXISTING POWER OUTLETS IN THIS AREA TO REMAIN.
2. ALL EXISTING LIGHT FIXTURES IN THIS AREA TO BE REMOVED AND SALVAGED TO UTAH NATIONAL GUARD.
3. REMOVE AND RELOCATE EXISTING FIRE ALARM HORN/STROBE. SEE FA101.

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816



**CONSULTANTS**



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

UTAH NATIONAL GUARD

**JLTC BLDG. #2**  
Camp W. G. Williams  
Bluffdale, Utah



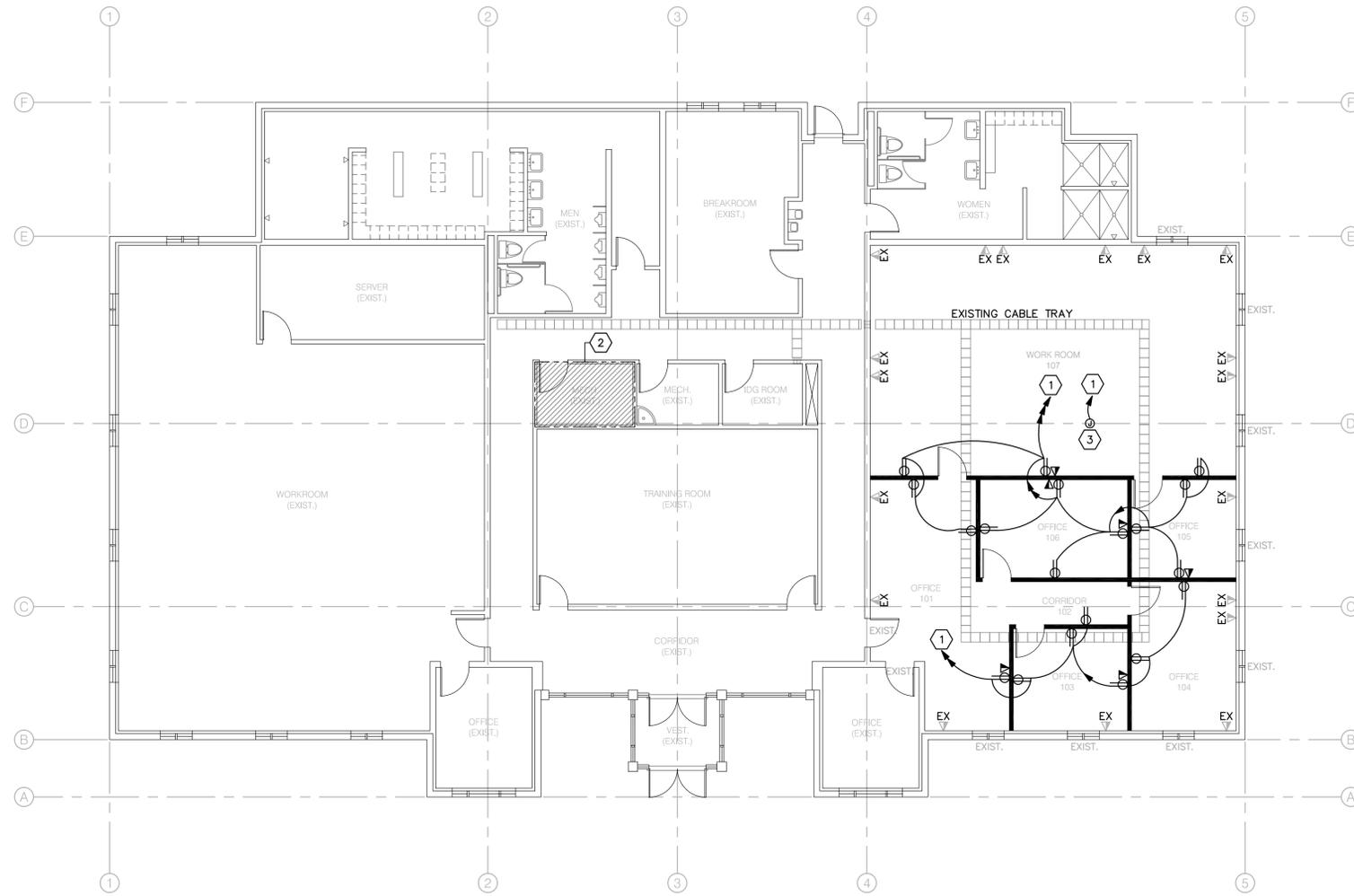
MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:                     
CAD DWG FILE: 46ED-101.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO  
COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN  
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER  
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

**DEMOLITION PLAN**

**ED101**



**(B1) POWER PLAN**  
1/8" = 1'-0"

**SHEET KEYNOTES**

1. CONNECT TO 20A/1P SPARE BREAKER(S) IN EXISTING PANEL "P2".
2. ELECTRICAL PANELS LOCATED IN THIS ROOM - FIELD VERIFY.
3. PROVIDE POWER ABOVE THE ACCESSIBLE CEILING FOR POWER TO MECHANICAL EQUIPMENT CONTROLS. VERIFY MOUNTING LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR.

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816

CONSULTANTS

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

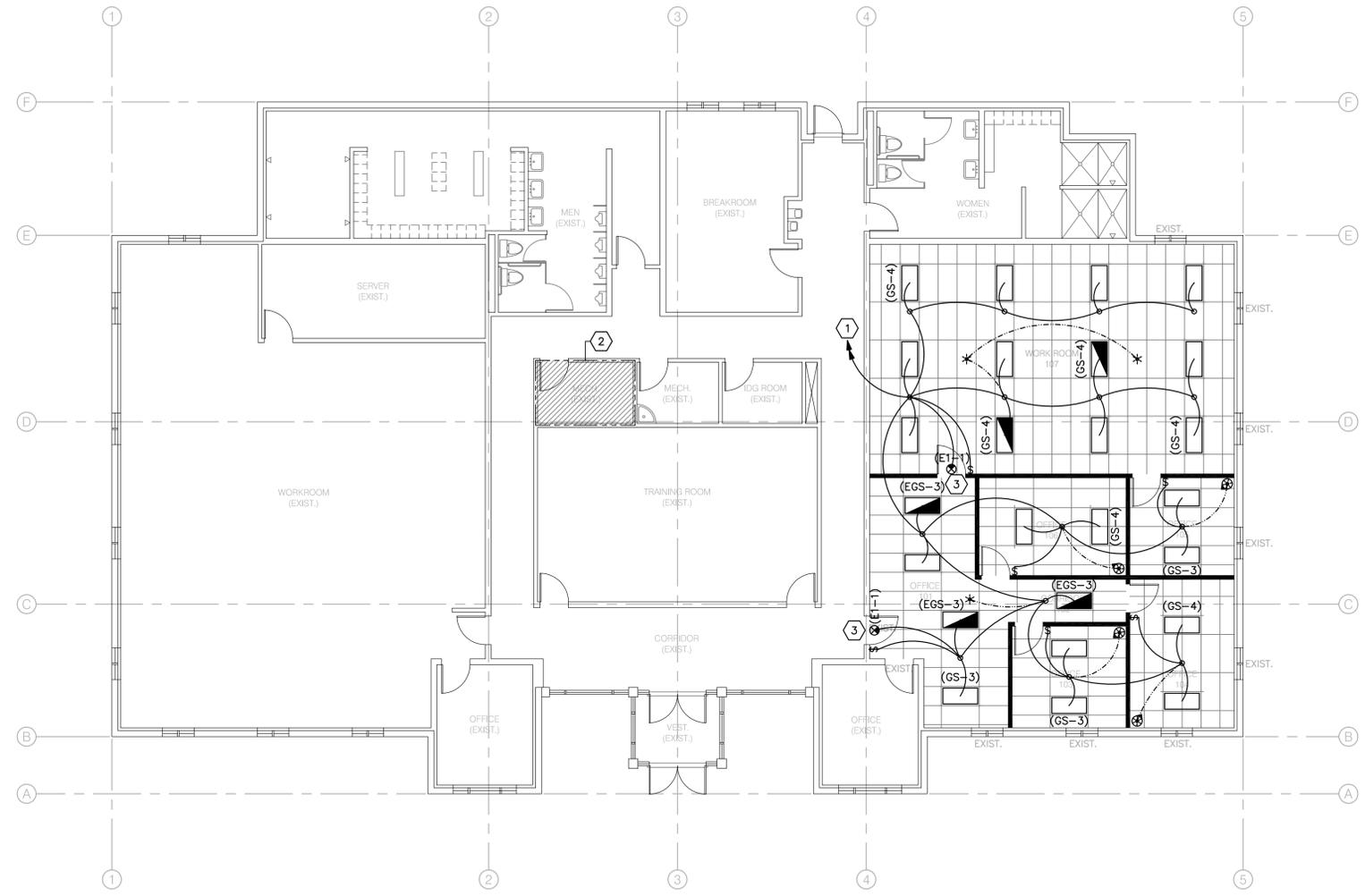
UTAH NATIONAL GUARD  
**JLTC BLDG. #2**  
Camp W. G. Williams  
Bluffdale, Utah

MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:                        
CAD DWG FILE: 46EP-101.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO  
COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN  
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER  
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE  
**POWER PLAN**

**EP101**



**(B1) LIGHTING PLAN**  
1/8" = 1'-0"

**SHEET KEYNOTES**

1. CONNECT TO 20A/1P SPARE BREAKER(S) IN EXISTING PANEL "E1".
2. ELECTRICAL PANELS LOCATED IN THIS ROOM – FIELD VERIFY.
3. CONNECT EXIT SIGN TO UNSWITCHED LEG OF CIRCUIT.

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816

CONSULTANTS

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

UTAH NATIONAL GUARD  
**JLTC BLDG. #2**  
Camp W. G. Williams  
Bluffdale, Utah

MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:                     
CAD DWG FILE: 46EL-101.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO  
COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN  
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER  
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE  
**LIGHTING PLAN**

**EL101**

D  
C  
B  
A

## LIGHTING FIXTURE SCHEDULE

NOTE TO BIDDERS: COMPLY WITH SECTIONS 16511, 16521, AND 16570 OF THE SPECIFICATIONS. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT. HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIMENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.

FIXTURE CHARACTERISTICS		BODY / AIR / MOUNTING / DOOR		LENS/LOUVER/REFLECTOR/OTHER		LAMP	WATTS	VOLTS	MANUFACTURER CATALOG NUMBER	NOTES	
E	E PREFIX INDICATES THAT FIXTURE IS PROVIDED WITH AN EMERGENCY BATTERY PACK TO PROVIDE POWER TO ANY 2, 3, 4 OR 8 FOOT FLOURESCENT LAMP COMPATIBLE WITH ALL STANDARD AND ELECTRONIC BALLASTS; COMPLETELY SELF-CONTAINED TO PROVIDE 90 MINUTES OF EMERGENCY POWER TO FIXTURE BALLAST; MINIMUM LIGHT OUTPUT FOR TYPICAL 4' LAMP SHALL BE 1100 LUMENS OR HIGHER; UNIVERSAL TRANSFORMER FOR 120 OR 277 VOLTS; LOW VOLTAGE PROTECTION, COMBINATION TEST SWITCH AND AC "ON" INDICATOR; 10 YEAR PRO-RATA WARRANTY; INSTALL TEST SWITCH IN A MANNER THAT REQUIRES NO DISASSEMBLY FOR TESTING.										
E	EMERGENCY BATTERY PACK.						120/277V3W		IOTA BODINE LITHONIA PRESCOLITE EELP CHLORIDE LIGHTOLIER SIDELITE	I-80 B50 PS-1400 EFPS-5 EB1400 (CONTRACTOR INSTALLED) CFPB41 FBP50 S60F	
E1	EXIT SIGN: THERMOPLASTIC HOUSING; UNIVERSAL MOUNTING; UNIVERSAL ARROWS PER PLANS; EMERGENCY BATTERY PACK WITH 10 YEAR PRO-RATA WARRANTY; LED, DIFFUSE LENS PANEL; GREEN LETTERS ON WHITE BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS.										
E1-1	SINGLE FACE:	LED	1W	120/277V	MCPHILBEN DUAL-LITE EELP LITHONIA SURE-LITES DAY-BRITE CHLORIDE LIGHTOLIER				CXXL-1-GW LXSGWE XE 1 GW EM LQM S W 1 G 120/277 ELN LPX70DGW CXL-1-GW-EM SLN1GW LTN1GW		
GS	TROFFERS: RECESSED FOR LAY-IN GRID; STATIC; HINGED AND LATCHED STEEL DOOR; .125 ACRYLIC PRISMATIC LENS, MINIMUM 1/8"; EARTHQUAKE CLIPS; MAX 5" DEEP; SPECIFICATION GRADE; PROGRAM START ELECTRONIC BALLASTS, T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.										
GS-3	2X4, 2 LAMP.				2-F32T8 RE835	65W	277/120V	LITHONIA	2 SP8G 232 A12125 MVOLT TUBRHP (4-1/2" DEPTH) 2GP-232A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) DAYBRITE 2DPG232-FS21-UNV-1/2EB-SPEC (4-3/8" DEPTH) LSI LA125 232 SD SS010PS UE (4" DEPTH) LIGHTOLIER XT2GV1232-UNV-SOP (3-5/8" DEPTH) COLUMBIA ST824-232G-FSA12.125-EB8LHPRUNV (3-3/4" DEPTH)		
GS-4	2X4, 3 LAMP.				3-F32T8 RE835	95W	277/120V	LITHONIA	2 SP8G 332 A12125 1/3 MVOLT TUBRHP (4-1/2" DEPTH) 2GP-332A125-UNV-EB81-PROGRAM START (3-3/4" DEPTH) DAYBRITE 2DPG332-FS21-UNV-1/3EB-SPEC (4-3/8" DEPTH) COLUMBIA ST824-332G-FSA12.125-3EB8LHPRUNV (3-3/4" DEPTH) LIGHTOLIER XT2GV1332-UNV-03P (3-5/8" DEPTH) LSI LA125 332 SD SS010PS UE (4" DEPTH)		

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS

3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816



CONSULTANTS

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

UTAH NATIONAL GUARD

JLTC BLDG. #2

Camp W. G. Williams  
Bluffdale, Utah

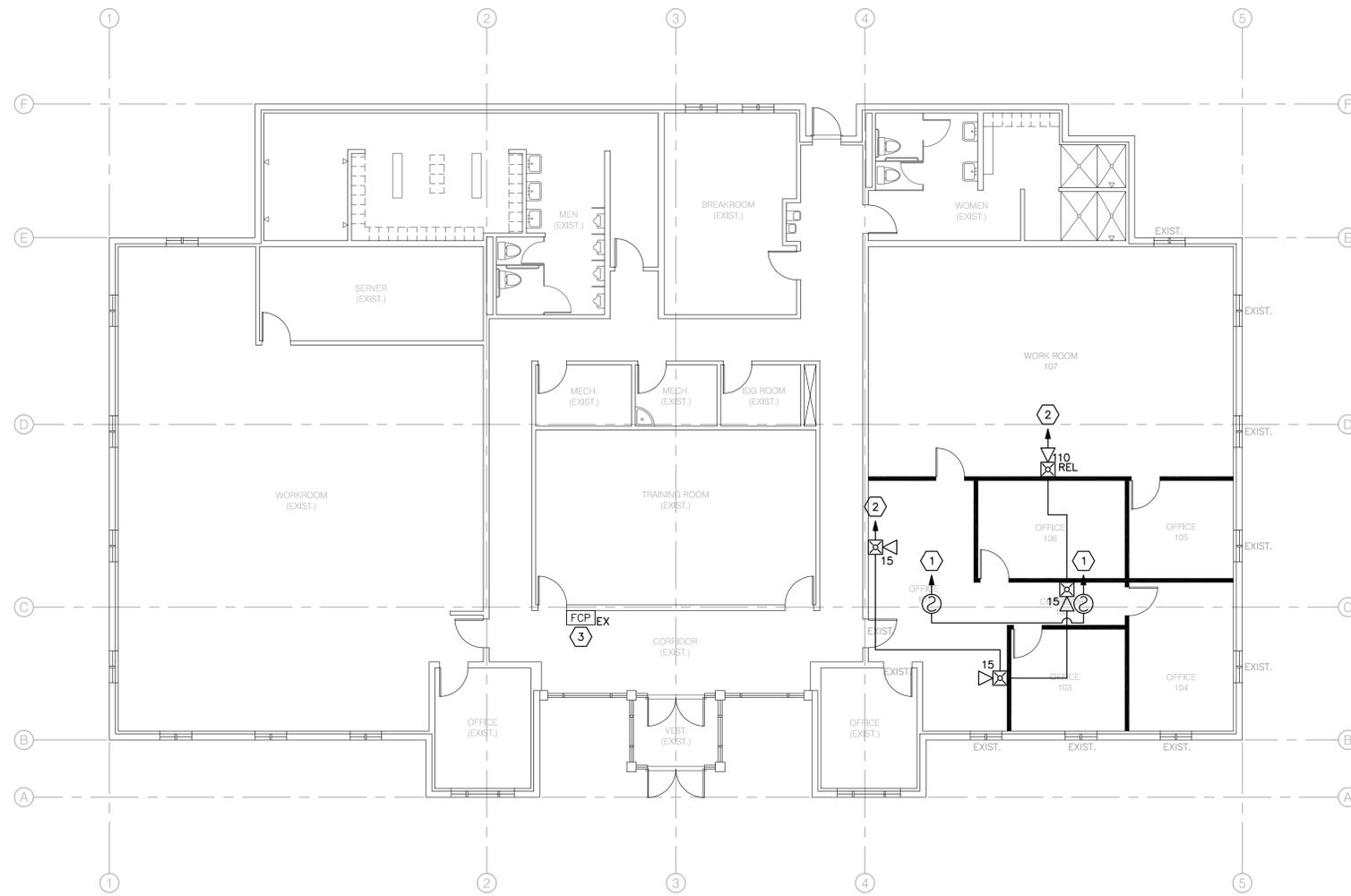
MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:                     
CAD DWG FILE: 46EL-601.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

LIGHTING  
FIXTURE  
SCHEDULE

EL601



**B1** FIRE ALARM PLAN  
1/8" = 1'-0"

**SHEET KEYNOTES**

1. CONNECT TO EXISTING INITIATING LOOP.
2. CONNECT TO EXISTING INDICATING LOOP.
3. FIELD VERIFY FIRE ALARM PANEL TYPE AND PROVIDE DEVICES TO MATCH PANEL.

L. K. SORENSEN ASSOCIATES, INC.  
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS  
3448 SOUTH MAIN STREET  
SALT LAKE CITY, UTAH 84115  
(801)478-0800 Fax: (801)478-0816



**CONSULTANTS**

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

UTAH NATIONAL GUARD

**JLTC BLDG. #2**  
Camp W. G. Williams  
Bluffdale, Utah



MARK	DATE	DESCRIPTION

PROJECT NO: 0000  
DATE:                     
CAD DWG FILE: 46FA-101.dwg  
DRAWN BY: PSS  
CHECKED BY: PEJ  
DESIGNED BY: DLA  
COPYRIGHT:  
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO  
COPYRIGHT LAW AND IS THE PROPERTY OF L. K. SORENSEN  
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER  
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE  
**FIRE ALARM PLAN**

**FA101**