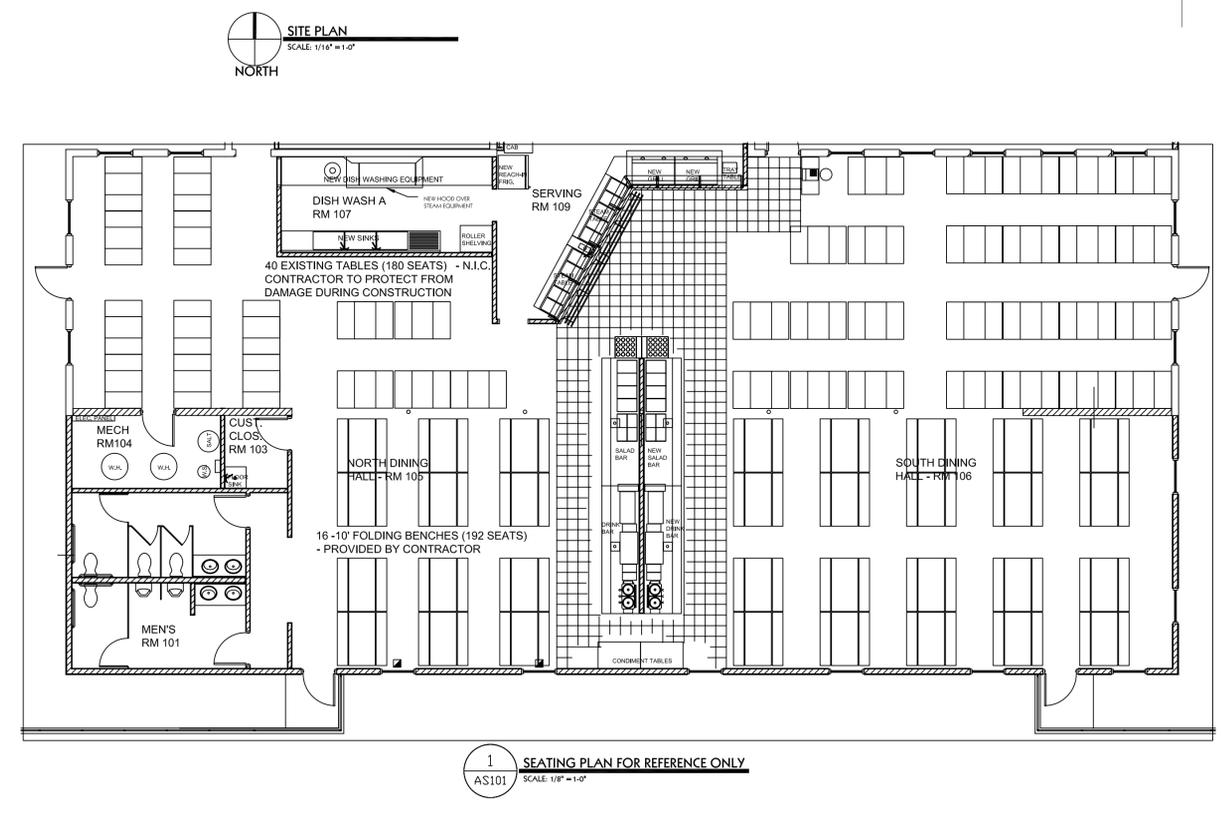
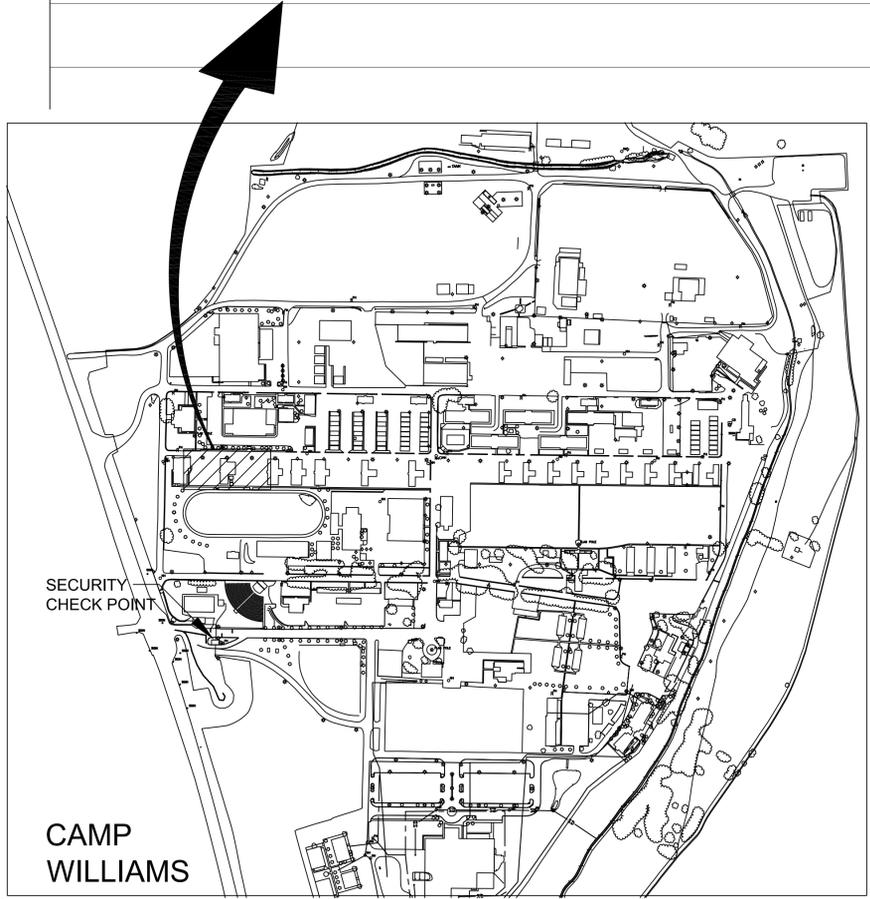
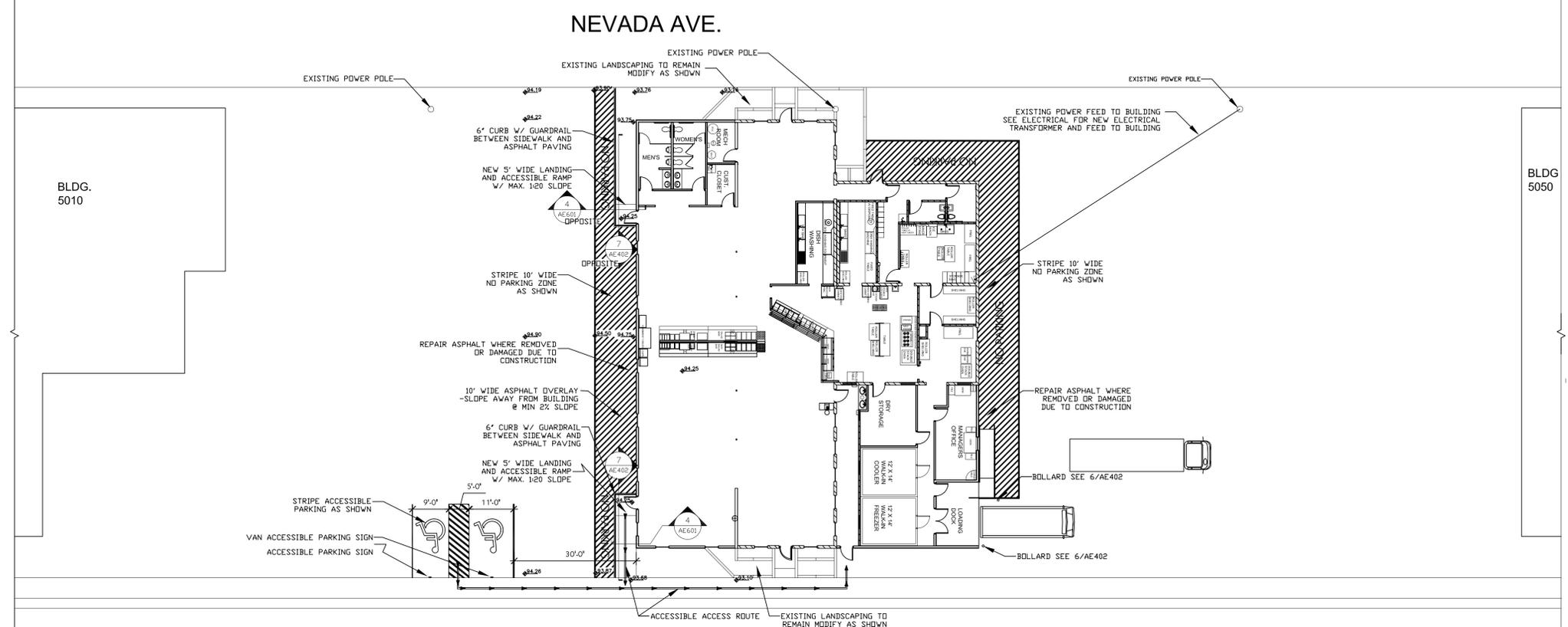


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A B C D E F G H I J K L



CONSULTANT INFORMATION

KEYED NOTES

01

GENERAL NOTES

01

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

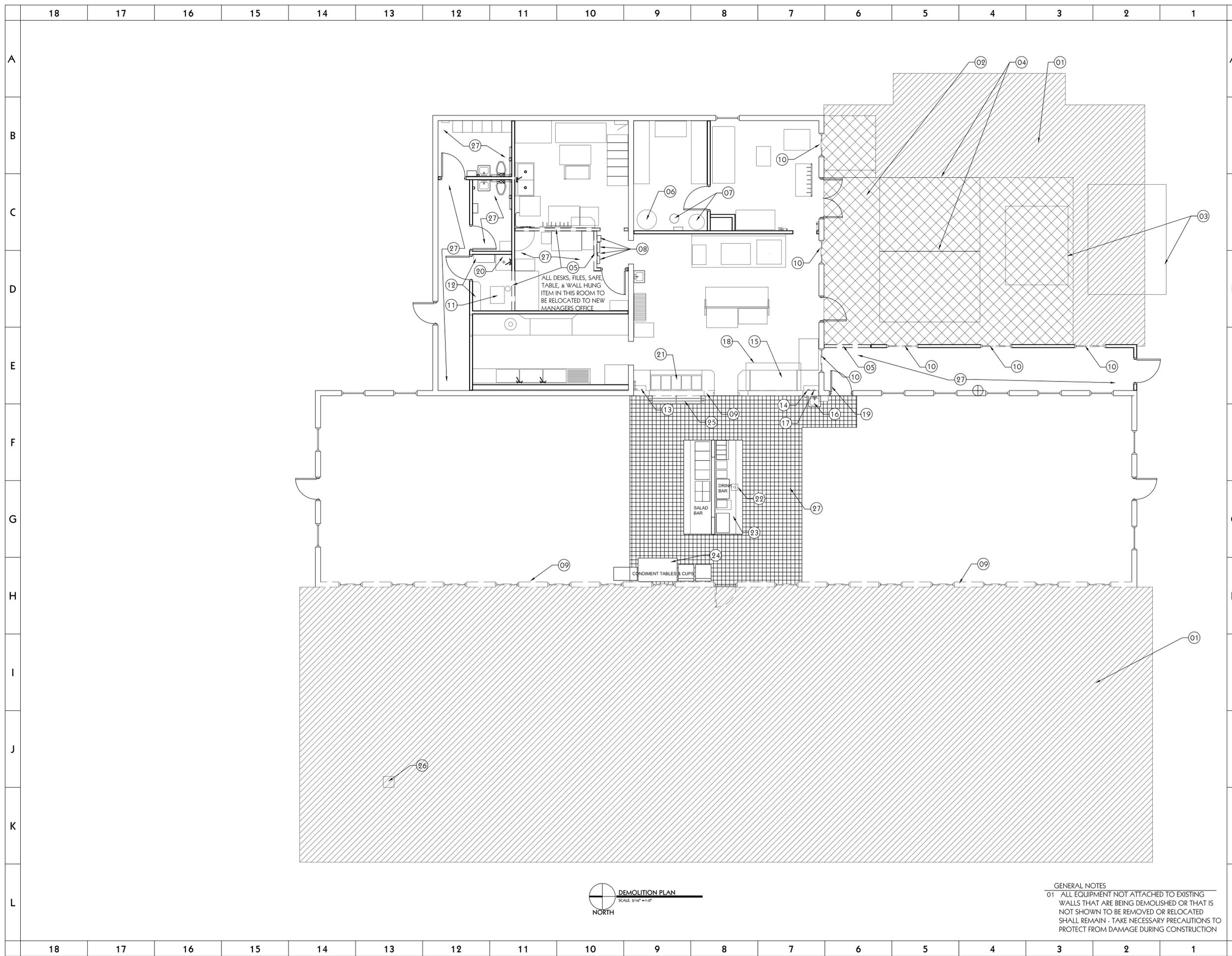
SHEET TITLE
SITE PLAN

REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY	JRA	CHECKED BY	ERT
PROJECT NO.	06296480	DRAWING NO.	AS101
DATE	AUG. 22, 2007		

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CONSULTANT INFORMATION

- KEYED NOTES**
- 01 REMOVE EXISTING ASPHALT IN HATCHED AREA AS REQUIRED FOR NEW CONSTRUCTION
 - 02 REMOVE EXISTING CONCRETE LOADING DOC AND SLAB IN CROSS HATCHED AREA AS REQUIRED FOR NEW CONSTRUCTION
 - 03 RELOCATE EXISTING STORAGE SHED - COORDINATE LOCATION WITH THE NATIONAL GUARD
 - 04 SALVAGE EXISTING WALK-IN FREEZER AND COOLER TO NATIONAL GUARD
 - 05 REMOVE EXISTING WALL SHOWN DASHED - REPAIR CEILING TO MATCH ADJACENT - COORDINATE RE-LOCATION OF EXISTING EQUIPMENT ATTACHED TO WALL WITH NATIONAL GUARD
 - 06 REMOVE EXISTING WATER HEATER - PROVIDE NEW WATER HEATER IN NEW LOCATION IN NEW MECHANICAL ROOM - SEE PLUMBING DRAWINGS
 - 07 RELOCATE EXISTING SOFT WATER CONDITIONER TO NEW LOCATION IN NEW MECHANICAL ROOM - SEE PLUMBING DRAWINGS
 - 08 RELOCATE EXISTING FIRE ALARM CONTROL PANELS, TIME CLOCK, AND TIME CARD HOLDER TO NEW LOCATION SHOWN ON AE101
 - 09 DEMOLISH EXISTING BEARING WALL - SEE STRUCTURAL FOR NEW BEAM AND OR SHEAR WALL SUPPORTS REQUIRED - PROVIDE TEMPORARY SUPPORT AS REQUIRED
 - 10 REMOVE EXISTING WINDOW AND INFILL OPENING TO MATCH ADJACENT CONSTRUCTION
 - 11 REMOVE EXISTING FURNACE AND ASSOCIATED PIPING - SEE MECHANICAL
 - 12 REMOVE AND SALVAGE TO NATIONAL GUARD EXISTING SHELVING
 - 13 REMOVE EXISTING GAS LINE BACK TO ABOVE CEILING - SEE MECHANICAL
 - 14 RELOCATE EXISTING GAS LINE OVER NEXT TO WALL - SEE MECHANICAL
 - 15 SALVAGE EXISTING GAS GRILL TO NATIONAL GUARD - REMOVE CABINETS AT EACH END
 - 16 REMOVE EXISTING SINK, PAPER TOWEL DISPENSER AND SOAP DISPENSER - SALVAGE SINK TO NATIONAL GUARD - SALVAGE PAPER & SOAP DISPENSER FOR RELOCATION AT NEW SINKS
 - 17 REMOVE WATER LINES & DRAIN LINES RELOCATE TO NEW SINK AREA - SEE PLUMBING PLAN
 - 18 REMOVE EXISTING HOOD OVER GRILL, MODIFY TO ACCOMMODATE 8'-0" GRILL AND RELOCATE AS SHOWN ON AE101
 - 19 REMOVE EXISTING DOOR & HINGES - SALVAGE TO NATIONAL GUARD
 - 20 EXISTING FLOOR SINK TO REMAIN
 - 21 SALVAGE EXISTING STEAM TABLE TO U.N.G. FOR REUSE - REMOVE CABINETS AT EACH END
 - 22 REMOVE EXISTING FLOOR SINK & EXTEND DRAIN TO NEW FLOOR SINKS - SEE PLUMBING PLAN
 - 23 SALVAGE EXISTING SALAD & DRINK BAR FOR RELOCATION - SEE AE101
 - 24 CONDIMENT TABLES TO BE RELOCATED - SEE AE101
 - 25 SALVAGE TRAY SLIDE - RE-INSTALL - SEE AE101
 - 26 REMOVE EXISTING CONCRETE BLOCK AS REQUIRED
 - 27 REMOVE EXISTING FLOOR TILE AS REQUIRED FOR INSTALLATION OF NEW FLOORING



GENERAL NOTES

- 01 ALL EQUIPMENT NOT ATTACHED TO EXISTING WALLS THAT ARE BEING DEMOLISHED OR THAT IS NOT SHOWN TO BE REMOVED OR RELOCATED SHALL REMAIN - TAKE NECESSARY PRECAUTIONS TO PROTECT FROM DAMAGE DURING CONSTRUCTION

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

SHEET TITLE
DEMOLITION PLAN

REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY: **JRA** CHECKED BY: **ERT**

PROJECT NO: **06296480** DRAWING NO: **AD101**

DATE: **AUG. 22, 2007**

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CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES



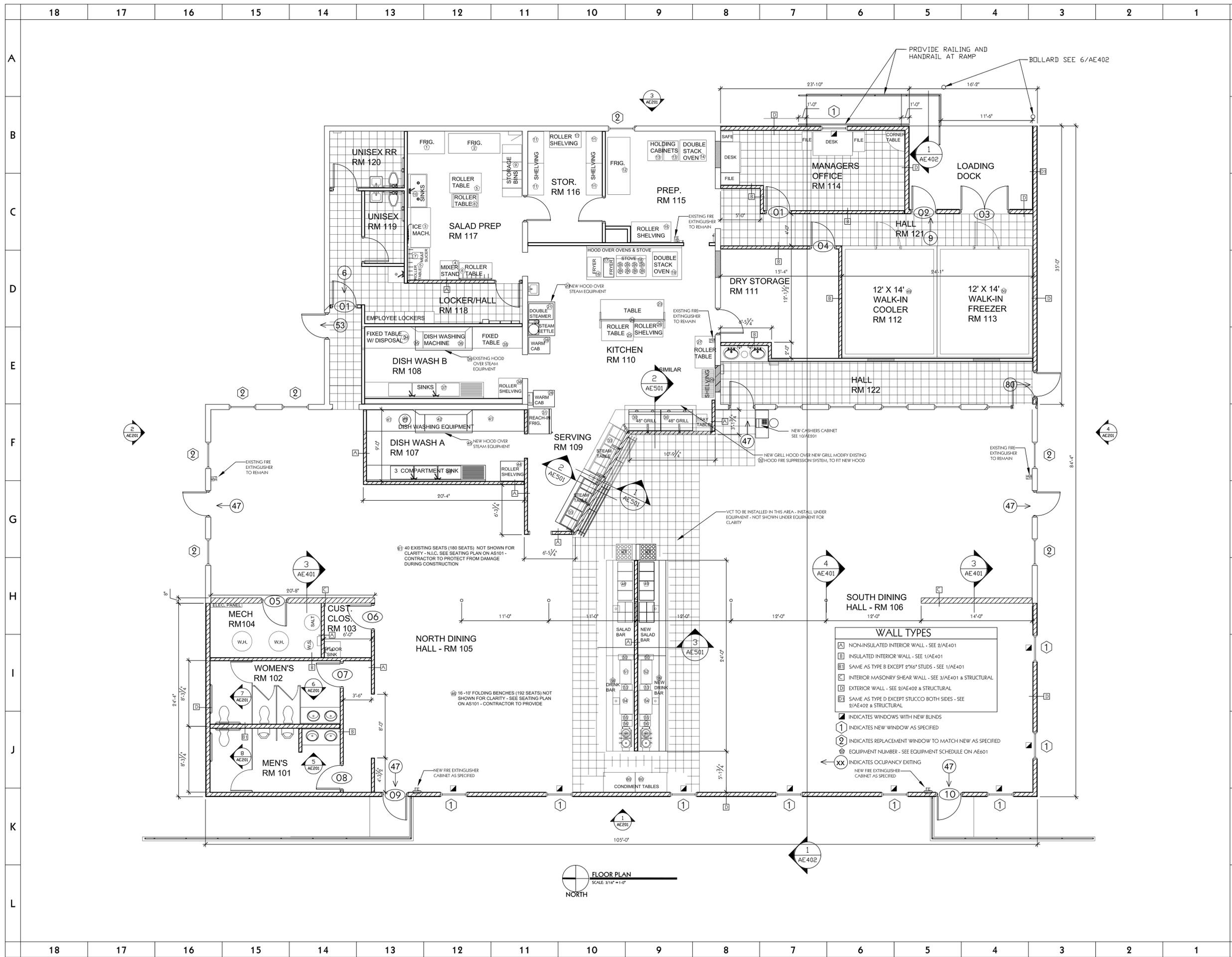
SHEET TITLE
FLOOR PLN

REVISIONS	DATE	BY	DESCRIPTION
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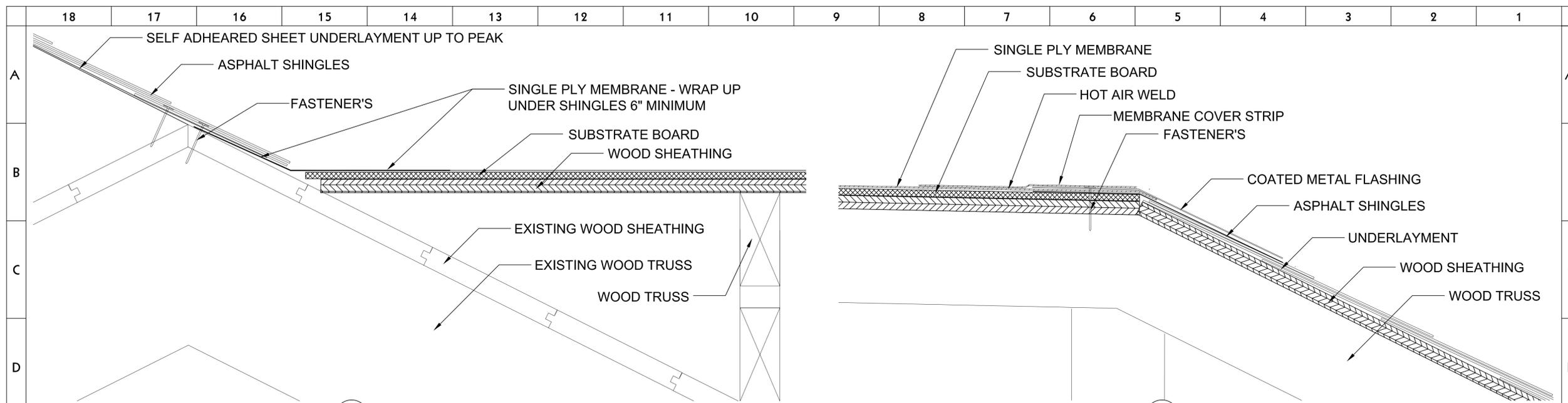
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DATE: **AUG 22, 2007** **AE101**



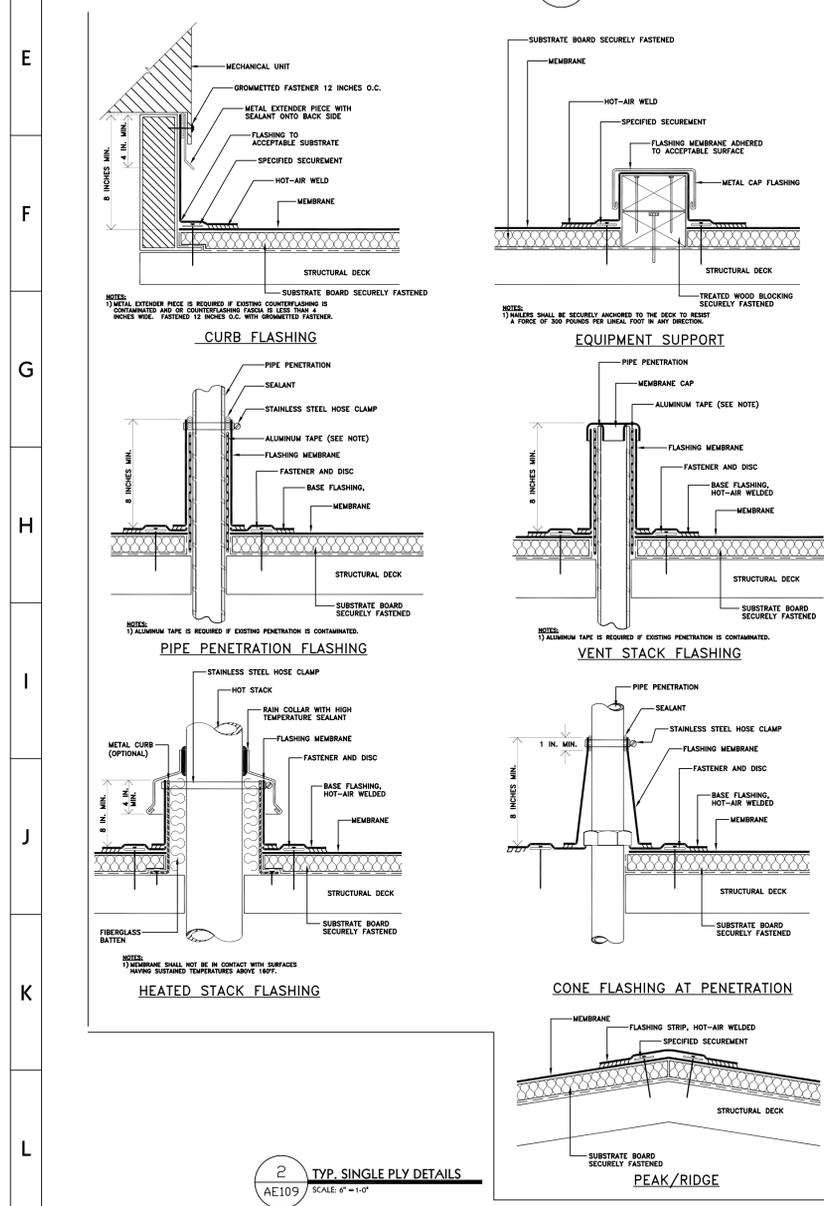
FLOOR PLAN
SCALE: 3/16" = 1'-0"
NORTH

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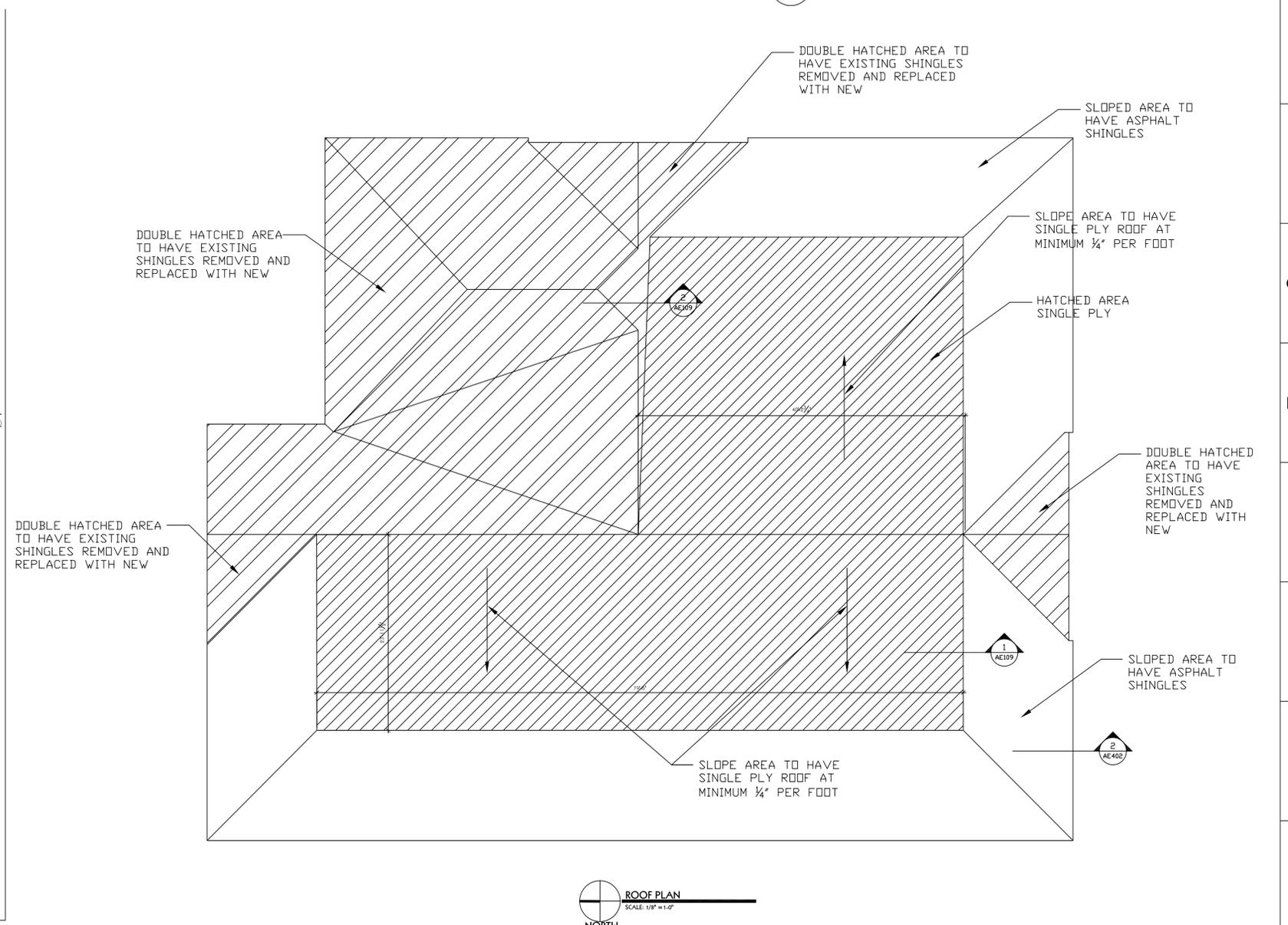


2 SINGLE PLY TO SHINGLE TRANSITION
 AE109 SCALE: 6" = 1'-0"

1 SINGLE PLY TO SHINGLE TRANSITION
 AE109 SCALE: 6" = 1'-0"



2 TYP. SINGLE PLY DETAILS
 AE109 SCALE: 6" = 1'-0"



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

CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE			
ROOF PLAN			
REVISIONS	DATE	BY	DESCRIPTION
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PROJECT NO: **06296480** DRAWING NO:

DATE: **AUG. 22, 2007**

AE109

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CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES

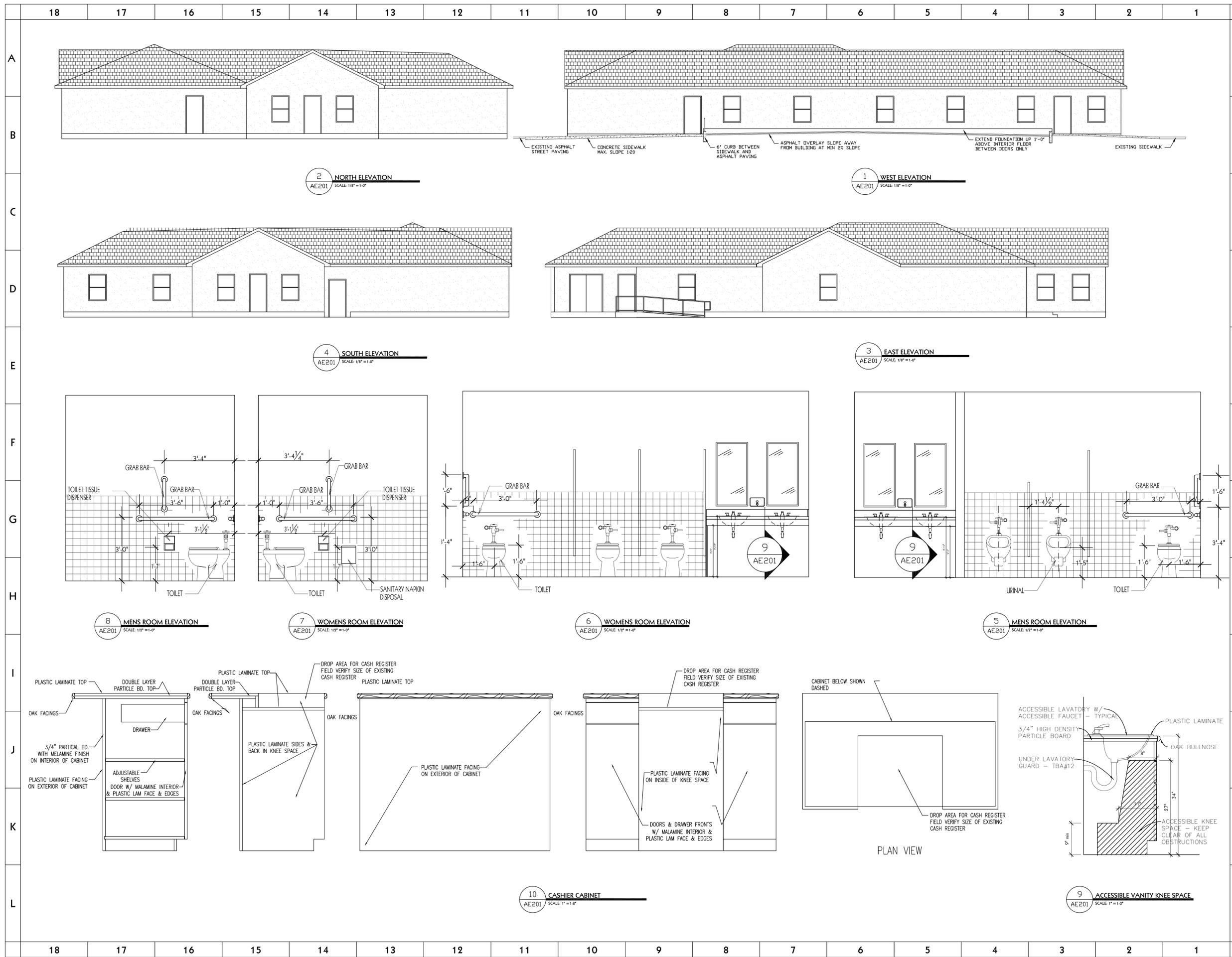


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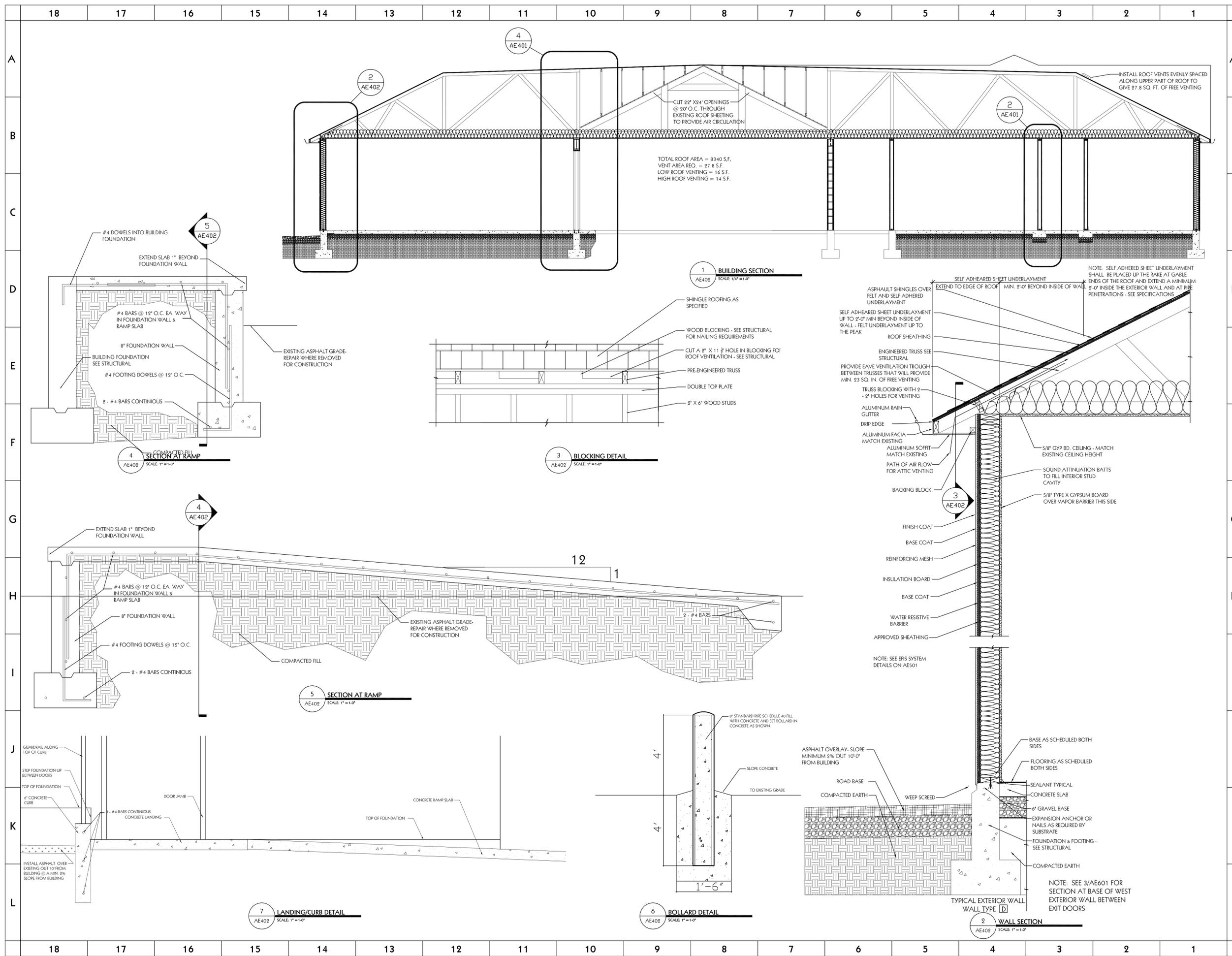
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PROJECT NO	06296480	DRAWING NO	
DATE	AUG. 22, 2007		

AE201



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CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SECTIONS

REVISIONS	DATE	BY	DESCRIPTION
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 PROJECT NO: 06296480 DRAWING NO:
 DATE: AUG. 22, 2007

AE402

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CONSULTANT INFORMATION

KEYED NOTES

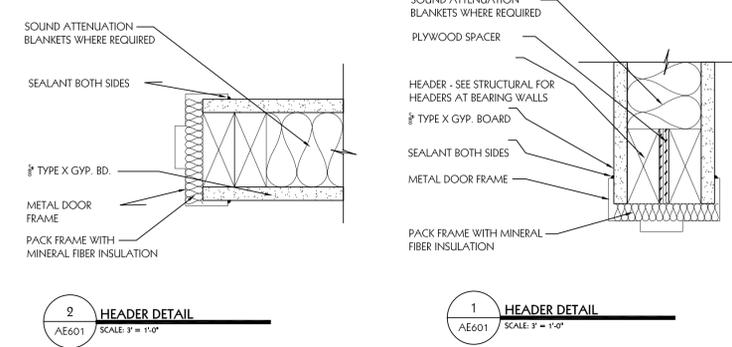
GENERAL NOTES

GENERAL NOTES

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

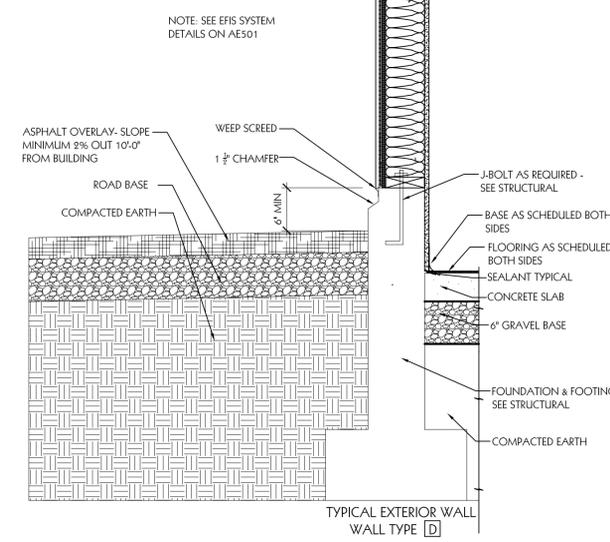
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DETAILS			
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PROJECT NO.	06296480	DRAWING NO.	AE502
DATE	AUG. 22, 2007		

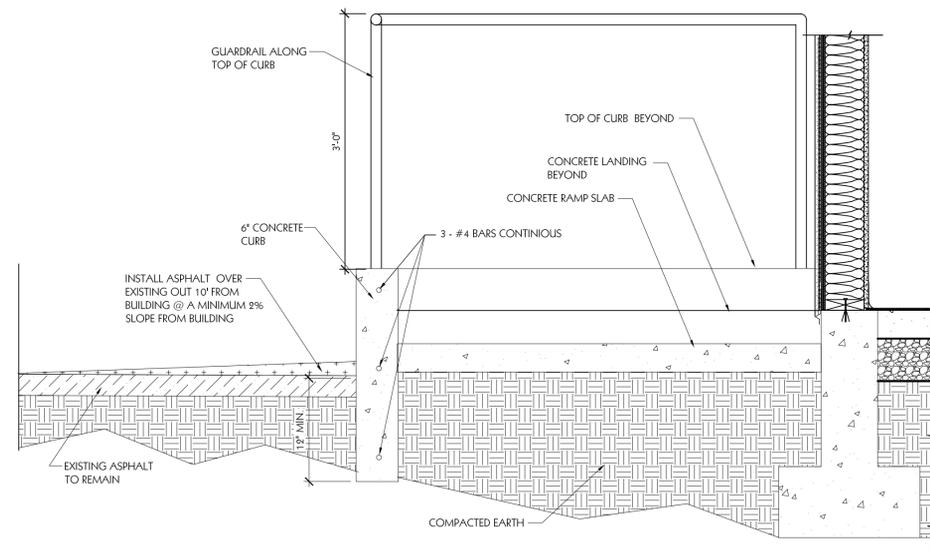


2 HEADER DETAIL
AE601 SCALE: 3/4" = 1'-0"

1 HEADER DETAIL
AE601 SCALE: 3/4" = 1'-0"

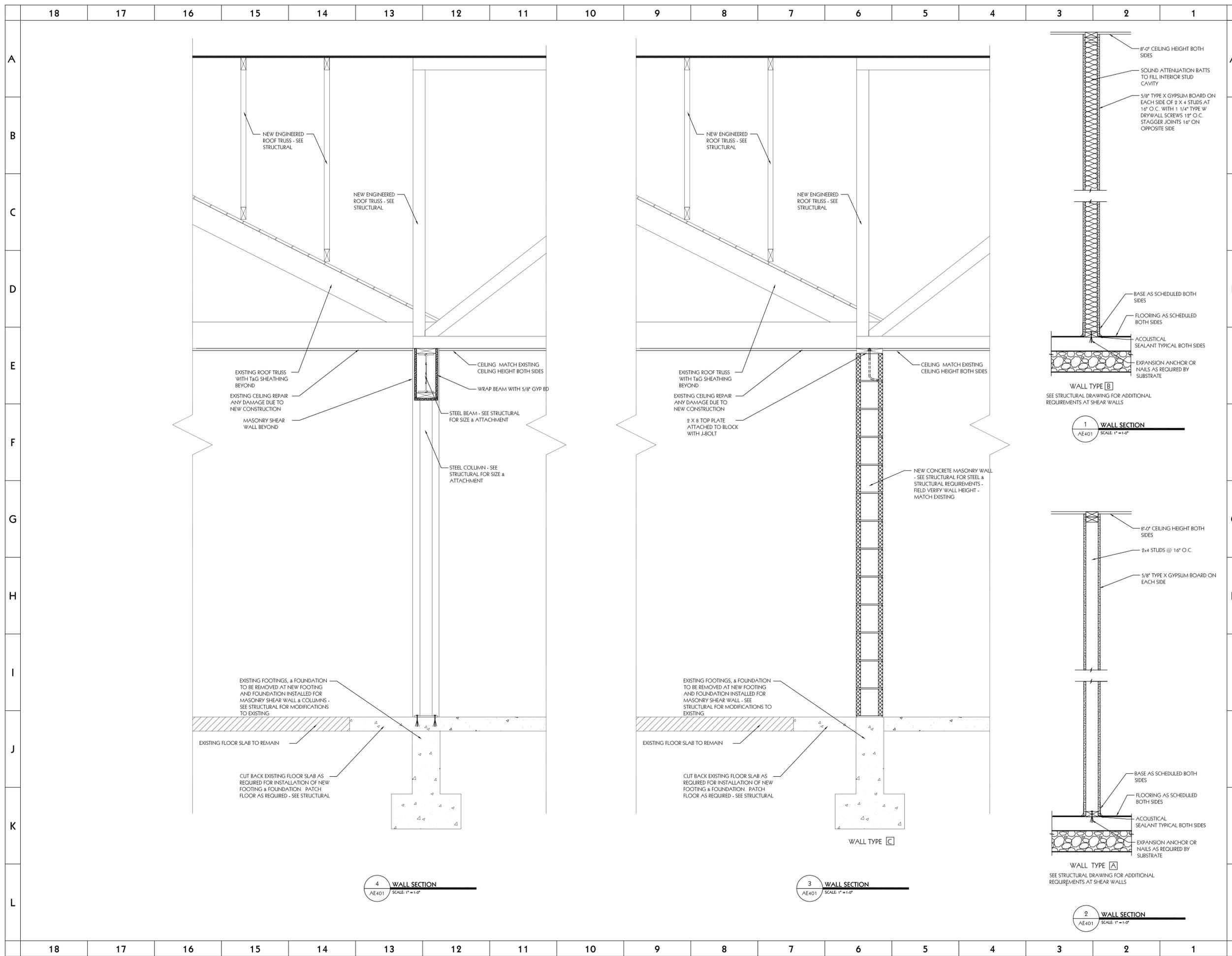


3 WALL SECTION
AE601 SCALE: 1" = 1'-0"



4 RAMP SECTION
AE601 SCALE: 1" = 1'-0"

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CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
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SECTIONS

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PROJECT NO: **06296480** DRAWING NO:

DATE: **AUG. 22, 2007**

AE401

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	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
A	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
B	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
C	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
D	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
E	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
F	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
G	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
H	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
I	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
J	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
K	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					
L	GENERAL			EARTHWORK			EPOXY			STRUCTURAL STEEL			COLD-FORMED METAL FRAMING					



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CONSULTANT INFORMATION

FARLEY ENGINEERING llc.

STRUCTURAL ENGINEERING CONSULTANTS

4625 South 2300 East, Suite 109
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Ph: (801) 274-3151

KEYED NOTES

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Utah National Guard

BLDG. 503 MESS HALL REMODEL

CAMP W.G. WILLIAMS

UTAH

SHEET TITLE: GENERAL STRUCTURAL NOTES

REVISIONS: DATE BY DESCRIPTION

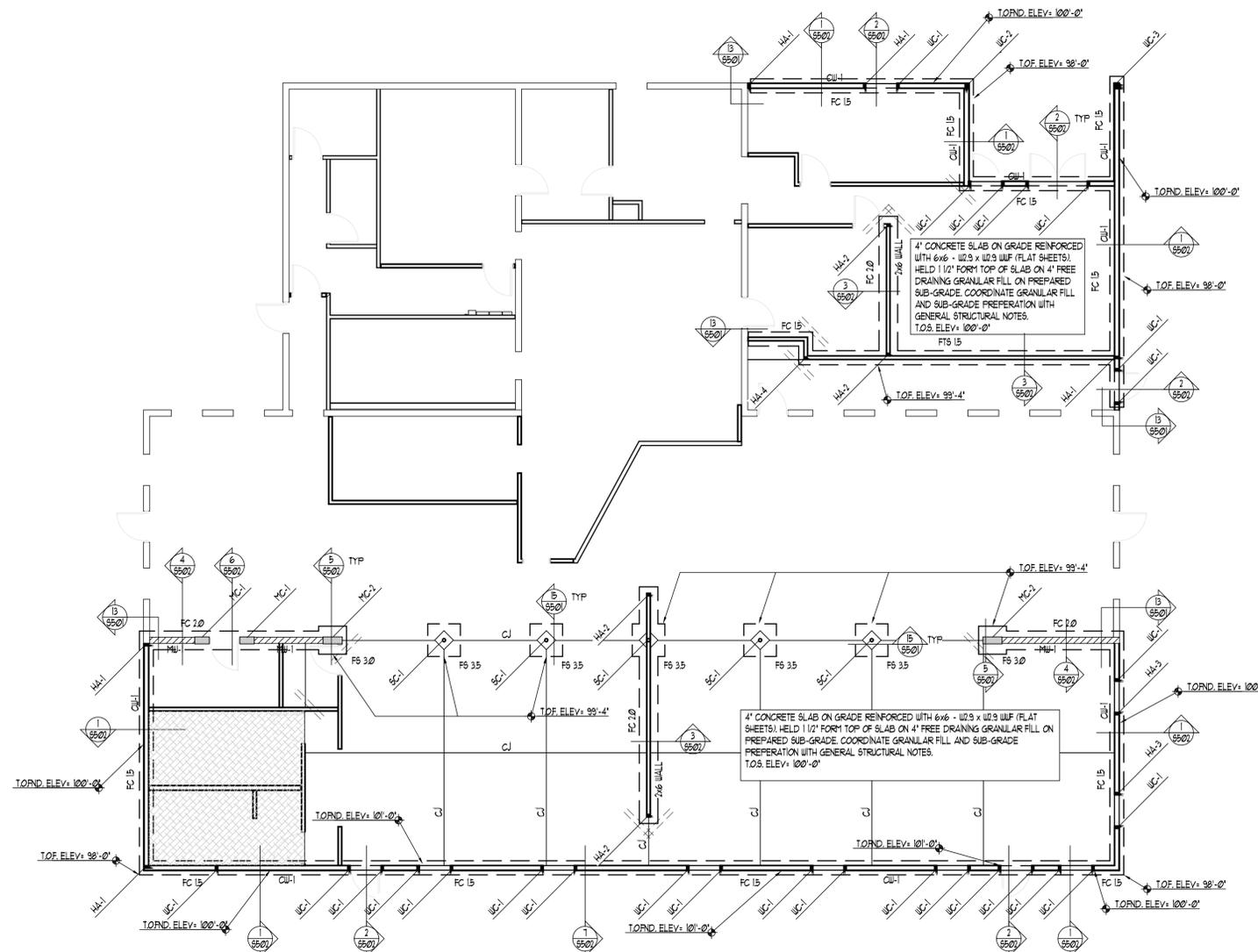
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PROJECT NO: 07002 DRAWING NO: S001

DATE: AUGUST 22, 2007

KEYED NOTES



LEGEND

- DETAIL MARK SHEET NUMBER
- INDICATES FOOTING STEP. SEE DETAIL 4/5601
- (7) #4 REBAR x 8'-0" LONG ADDED TO SLAB AT CENTER OF SLAB
- DEPRESS FOUNDATION WALL OR CONCRETE PANEL AND POUR SLAB OVER. SEE DETAILS 1/5601
- INDICATES MASONRY COLUMN. SEE SCHEDULE ON SHEET 5601
- DEPRESSED SLAB NOT SHOWN COORDINATE w/ ARCHITECTURAL & TENANT T.I. PLANS.
- INDICATES CONCRETE OVER METAL DECK. SEE GENERAL STRUCTURAL NOTES
- MOMENT CONNECTION DESIGNATION. SEE SHEET 5601 FOR DETAILS.
- INDICATES STEEL TUBE COLUMN. SEE SCHEDULE ON SHEET 5601
- C.J. INDICATES CONTROL CONSTRUCTION JOINT. SEE DETAILS 6/5601 & 7/5601
- CL-x INDICATE CONCRETE LINTEL. SEE SCHEDULE ON SHEET 5601
- CP-x INDICATE CONCRETE PIER. SEE SCHEDULE ON SHEET 5601
- CW-x INDICATES CONCRETE WALL TYPE. SEE SCHEDULE ON SHEET 5601
- FC-x INDICATES CONTINUOUS FOOTING. SEE SCHEDULE ON SHEET 5601
- FR-x INDICATES RECTANGULAR FOOTING. SEE SCHEDULE ON SHEET 5601
- FS-x INDICATES SPOT FOOTING. SEE SCHEDULE ON SHEET 5601
- FTS-x INDICATES THICKENED SLAB FOOTING. SEE SCHEDULE ON SHEET 5601
- HA-x INDICATES MASONRY WALL. SEE SCHEDULE ON SHEET 5601
- MC-x INDICATES MASONRY COLUMN. SEE SCHEDULE ON SHEET 5601
- ML-x INDICATES MASONRY LINTEL. SEE SCHEDULE ON SHEET 5601
- MW-x INDICATES MASONRY WALL REINFORCEMENT TERMINATIONS. SEE SCHEDULE ON SHEET 5601
- RW-x INDICATED CONCRETE RETAINING WALL. SEE SCHEDULE ON SHEET 5601
- SC-x INDICATES STEEL TUBE COLUMN. SEE SCHEDULE ON SHEET 5601
- W x INDICATES STEEL BEAMS. SEE THE GENERAL STRUCTURAL NOTES.

- FOOTING AND FOUNDATION PLAN NOTES**
1. COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
 2. SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
 3. SEE ARCHITECTURAL FOR ALL DIMENSIONS TO STEEL COLUMN.
 4. SEE DETAILS 1/5601 AND 7/5601 FOR BURIED PIPES RUNNING PARALLEL AND PERPENDICULAR TO FOOTINGS.
 5. SEE DETAIL 3/5601 FOR FILL BENEATH FOOTINGS.
 6. SEE 4/5601 FOR THE TYPICAL FOOTING STEP DETAIL.
 7. SEE 5/5601 FOR FOUNDATION WALL & MASONRY WALL INTERSECTION DETAIL.
 8. COORDINATE ALL SLAB CONTROL JOISTS AND CONSTRUCTION JOINTS WITH DETAIL 6/5601 AND 7/5601. SEE ARCHITECTURAL DRAWINGS FOR SPACINGS.
 9. COORDINATE ALL DISCONTINUOUS SLAB CONTROL JOISTS WITH DETAIL 6/5601 AND 8/5601.
 10. SEE DETAIL 9/5601 FOR REINFORCING AROUND MISCELLANEOUS OPENINGS IN CONCRETE WALLS.
 11. SEE DETAIL 10/5601 FOR REINFORCING AROUND MISCELLANEOUS OPENINGS IN MASONRY WALLS.
 12. SEE DETAIL 11/5601 FOR MASONRY WALL REINFORCEMENT TERMINATIONS.
 13. SEE DETAIL 12/5601 FOR MASONRY CONTROL JOINTS.
 14. SEE DETAIL 13/5601 FOR REINFORCING AROUND RECESS IN MASONRY WALLS.
 15. SEE DETAILS 10/5602 & 11/5602 FOR TRENCH DRAIN REINFORCING.
 16. FRAMERS SHALL DRILL ALL PLUMBING HOLES IN SHEAR WALL TOP & BOTTOM PLATES.
 17. SEE DETAIL 14/5601 FOR SILL PLATE BOLTING REQUIREMENTS.
 18. SEE DETAIL 15/5601 FOR HOLD DOWN ANCHOR PLACEMENTS.

FOOTING AND FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

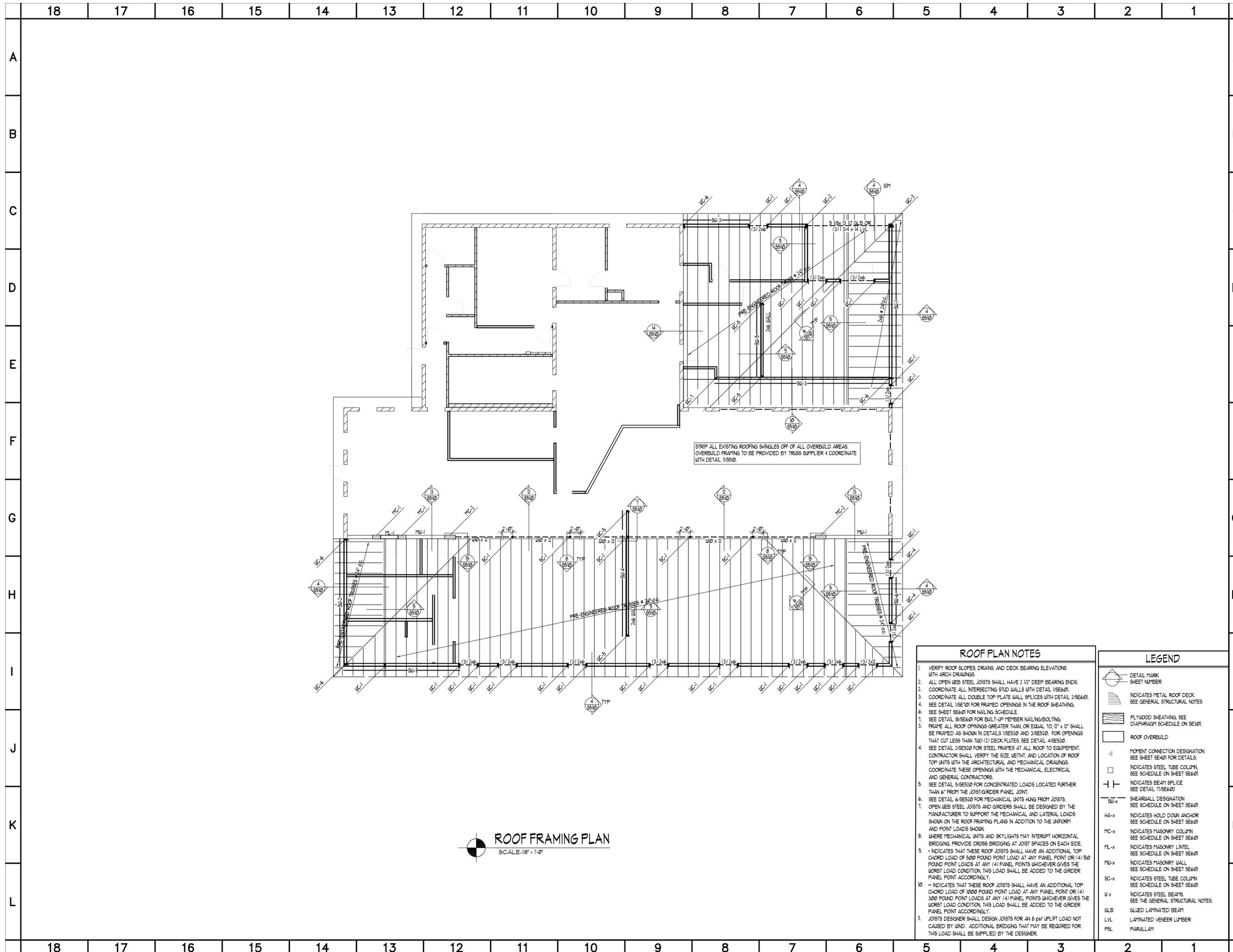
Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

SHEET TITLE FOOTING AND FOUNDATION PLAN

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PROJECT NO. 07002	DRAWING NO. S101
DATE AUGUST 22, 2007	

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STRIP ALL EXISTING ROOFING SHINGLES OFF OF ALL OVERBUILD AREAS. OVERBUILD FRAMING TO BE PROVIDED BY TRUSS SUPPLIER & COORDINATE WITH DETAIL 1/5610.

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

- ROOF PLAN NOTES**
- VERIFY ROOF SLOPES, DRAINS, AND DECK BEARING ELEVATIONS WITH ARCH DRAWINGS.
 - ALL OPEN WEB STEEL JOISTS SHALL HAVE 2 1/2" DEEP BEARING ENDS.
 - COORDINATE ALL INTERSECTING STUD WALLS WITH DETAIL 1/5610.
 - COORDINATE ALL DOUBLE TOP PLATE WALL SPLICES WITH DETAIL 2/5610.
 - SEE DETAIL 1/5610 FOR FRAMED OPENINGS IN THE ROOF SHEATHING.
 - SEE SHEET 5660 FOR NAILING SCHEDULE.
 - SEE DETAIL 1/5610 FOR BUILT-UP MEMBER NAILING/BOLTING.
 - FRAME ALL ROOF OPENINGS GREATER THAN OR EQUAL TO 12' x 12' SHALL BE FRAMED AS SHOWN IN DETAILS 1/5610 AND 3/5610. FOR OPENINGS THAT CUT LESS THAN TWO (2) DECK FLUTES, SEE DETAIL 4/5610.
 - SEE DETAIL 2/5610 FOR STEEL FRAMES AT ALL ROOF TO EQUIPMENT. CONTRACTOR SHALL VERIFY THE SIZE, WEIGHT, AND LOCATION OF ROOF TOP UNITS WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS. COORDINATE THESE OPENINGS WITH THE MECHANICAL, ELECTRICAL AND GENERAL CONTRACTORS.
 - SEE DETAIL 5/5610 FOR CONCENTRATED LOADS LOCATED FURTHER THAN 6" FROM THE JOIST/GIRDER PANEL JOINT.
 - SEE DETAIL 6/5610 FOR MECHANICAL UNITS HUNG FROM JOISTS.
 - OPEN WEB STEEL JOISTS AND GIRDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.
 - WHERE MECHANICAL UNITS AND SKYLIGHTS MAY INTERRUPT HORIZONTAL BRIDGING, PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE.
 - INDICATES THAT THESE ROOF JOISTS SHALL HAVE AN ADDITIONAL TOP CHORD LOAD OF 500 POUND POINT LOAD AT ANY PANEL POINT OR (4) 500 POUND POINT LOADS AT ANY (4) PANEL POINTS WHICHEVER GIVES THE WORST LOAD CONDITION. THIS LOAD SHALL BE ADDED TO THE GIRDER PANEL POINT ACCORDINGLY.
 - INDICATES THAT THESE ROOF JOISTS SHALL HAVE AN ADDITIONAL TOP CHORD LOAD OF 1000 POUND POINT LOAD AT ANY PANEL POINT OR (4) 300 POUND POINT LOADS AT ANY (4) PANEL POINTS WHICHEVER GIVES THE WORST LOAD CONDITION. THIS LOAD SHALL BE ADDED TO THE GIRDER PANEL POINT ACCORDINGLY.
 - JOIST DESIGNER SHALL DESIGN JOISTS FOR AN 8 psf UPLIFT LOAD NOT CAUSED BY WIND. ADDITIONAL BRIDGING THAT MAY BE REQUIRED FOR THIS LOAD SHALL BE SUPPLIED BY THE DESIGNER.

LEGEND

	DETAIL MARK SHEET NUMBER
	INDICATES METAL ROOF DECK SEE GENERAL STRUCTURAL NOTES
	PLYWOOD SHEATHING SEE DIAPHRAGM SCHEDULE ON 5630
	ROOF OVERBUILD
	MOMENT CONNECTION DESIGNATION SEE SHEET 5640 FOR DETAILS.
	INDICATES STEEL TUBE COLUMN SEE SCHEDULE ON SHEET 5660
	INDICATES BEAM SPLICE SEE DETAIL 1/5660
	SHEARWALL DESIGNATION SEE SCHEDULE ON SHEET 5660
HA-x	INDICATES HOLD DOWN ANCHOR SEE SCHEDULE ON SHEET 5660
MC-x	INDICATES MASONRY COLUMN SEE SCHEDULE ON SHEET 5660
ML-x	INDICATES MASONRY LINTEL SEE SCHEDULE ON SHEET 5660
MW-x	INDICATES MASONRY WALL SEE SCHEDULE ON SHEET 5660
SC-x	INDICATES STEEL TUBE COLUMN SEE SCHEDULE ON SHEET 5660
W-x	INDICATES STEEL BEAMS SEE THE GENERAL STRUCTURAL NOTES.
GLB	GLUED LAMINATED BEAM
LVL	LAMINATED VENEER LUMBER
PSL	PARALLAM

Harris & Associates

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CONSULTANT INFORMATION
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4625 South 2300 East, Suite 109.
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KEYED NOTES

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

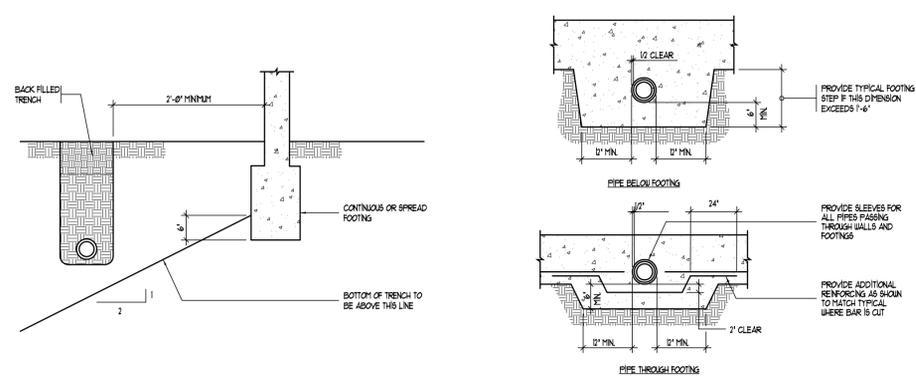
SHEET TITLE **ROOF FRAMING PLAN**

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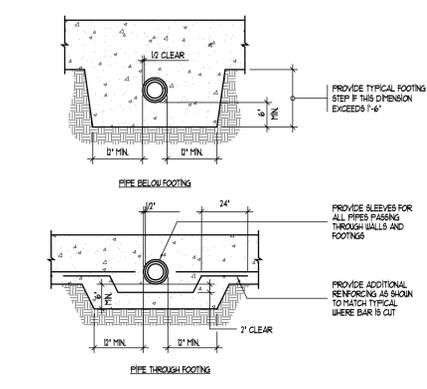
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PROJECT NO: 07002 DRAWING NO: S102
DATE: AUGUST 22, 2007

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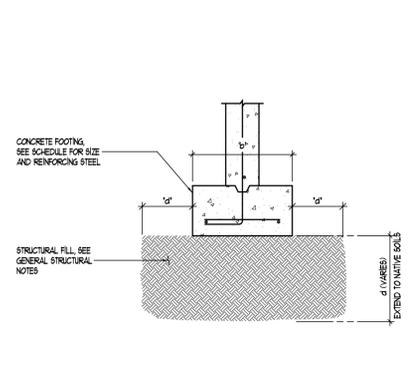
Utah National Guard - Camp Williams Bldg. 503 Mess Hall (Remodel)



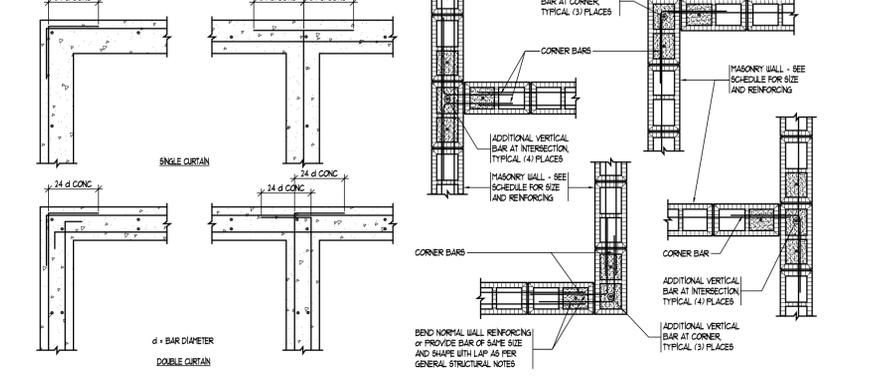
1 PIPE PARALLEL TO FOOTING DETAIL NO SCALE



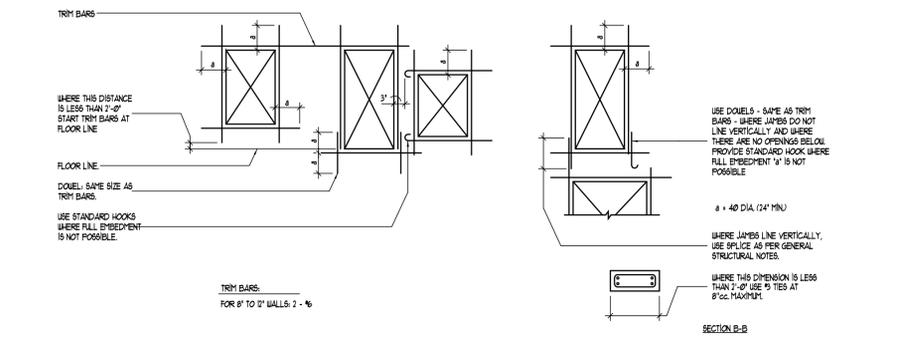
2 PIPE PERPENDICULAR TO FOOTING DETAIL NO SCALE



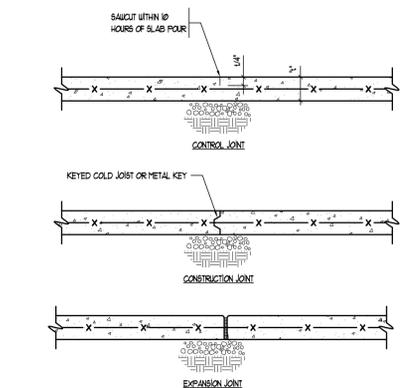
3 STRUCTURAL FILL DETAIL NO SCALE



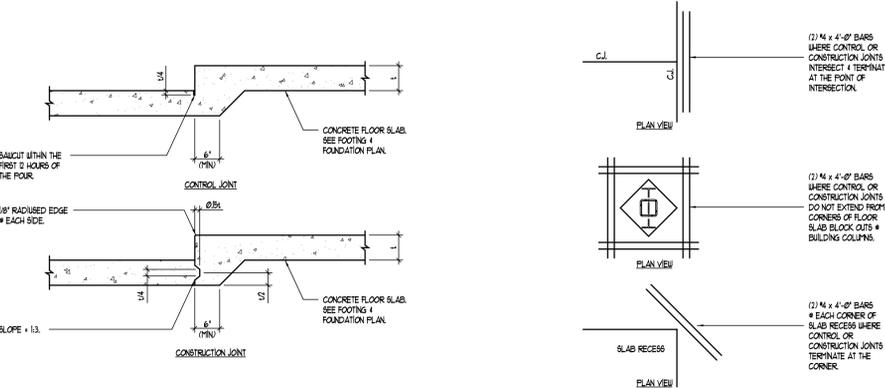
4 CONCRETE AND MASONRY WALL INTERSECTION REINFORCEMENT DETAIL NO SCALE



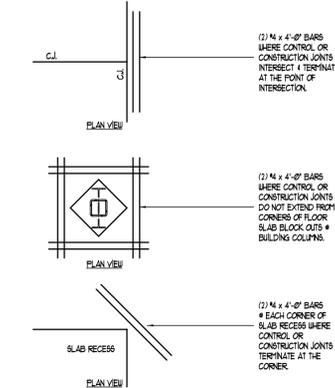
5 TYP. DETAILS OF TRIM BARS AROUND MISCELLANEOUS CONC. WALL OPENINGS, U.N.O. NO SCALE



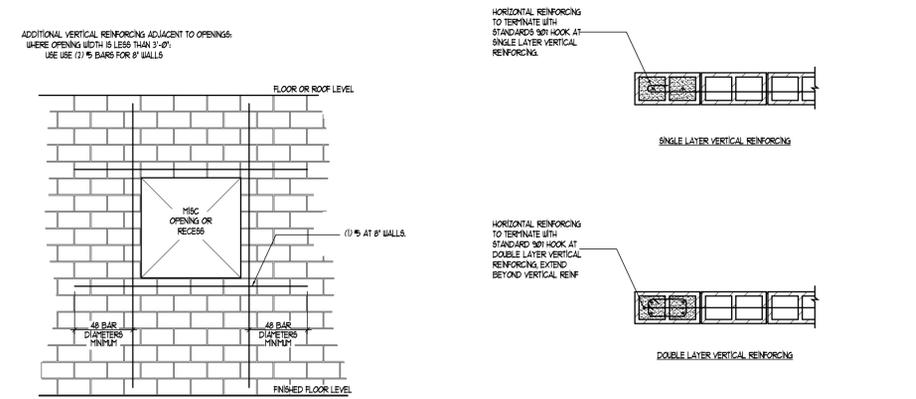
6 CONST./CONTROL JT. IN CONC. S.O.G. NO SCALE



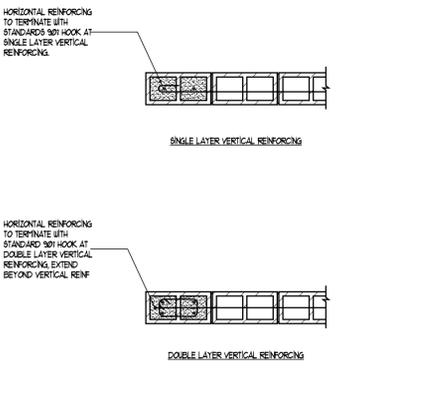
7 TYPICAL SLAB DEPRESSION DETAIL NO SCALE



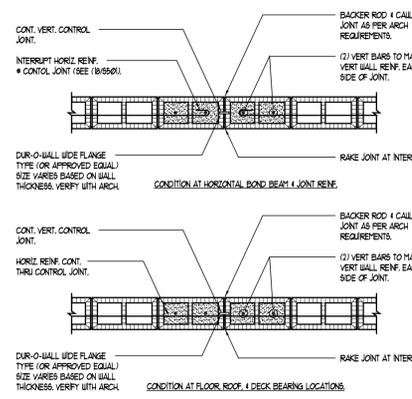
8 ADDITIONAL SLAB REINFORCING DETAIL NO SCALE



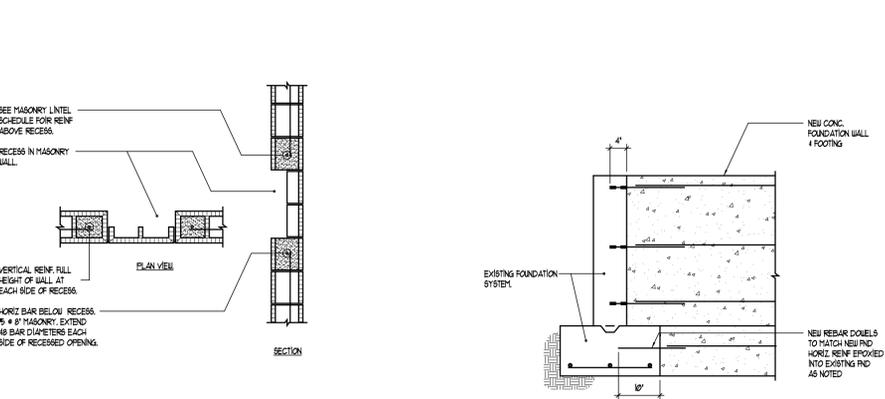
9 TYPICAL REINFORCING DETAIL FOR MISCELLANEOUS MASONRY WALL OPENINGS AND RECESSES NO SCALE



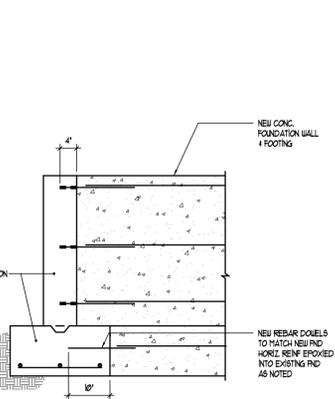
10 TERMINATION OF HORIZONTAL REINFORCING IN 8\"/>



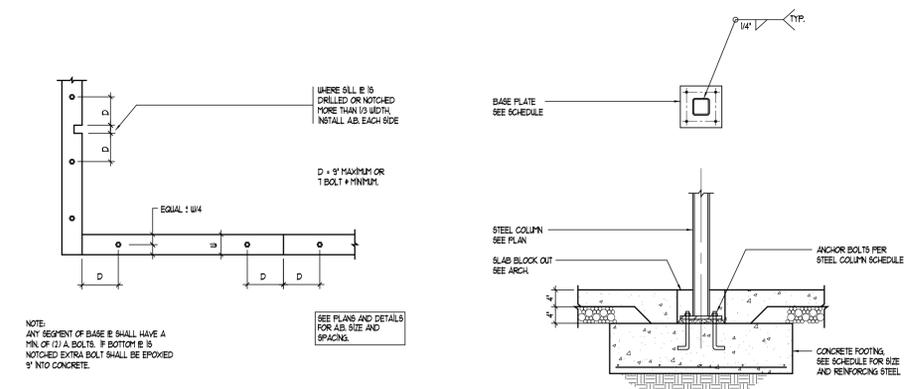
11 CONTROL JOINT DETAIL FOR 8\"/>



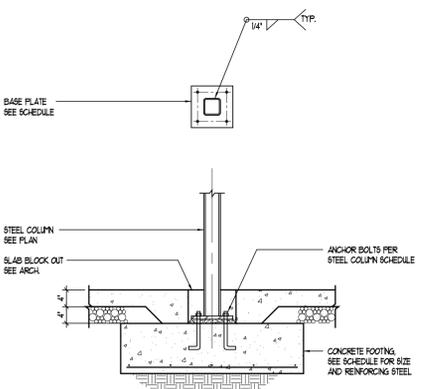
12 TYPICAL MASONRY WALL RECESS DETAILS FOR 8\"/>



13 NEW FDN. CONNECTION TO EXISTING FDN. DETAIL NO SCALE



14 SILL PLATE BOLTING DETAIL NO SCALE



15 STEEL COLUMN TO FOOTING DETAIL NO SCALE

Harris & Associates
 265 East 100 South Suite 350
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 Ph: (801) 521-8964 Fax: (801) 355-2938

CONSULTANT INFORMATION
FARLEY ENGINEERING llc.
 STRUCTURAL ENGINEERING CONSULTANTS
 4625 South 2300 East, Suite 109.
 Holladay, Utah 84117
 Ph: (801) 274-3151

KEYED NOTES

- (1) 1/2" x 4'-0" BARS WHERE CONTROL OR CONSTRUCTION JOINTS INTERSECT & TERMINATE AT THE POINT OF INTERSECTION.
- (2) 1/2" x 4'-0" BARS WHERE CONTROL OR CONSTRUCTION JOINTS DO NOT EXTEND FROM CORNERS OF FLOOR SLAB BLOCK OUTS & BUILDING COLUMNS.
- (3) 1/2" x 4'-0" BARS # EACH CORNER OF SLAB RECESS WHERE CONTROL OR CONSTRUCTION JOINTS TERMINATE AT THE CORNER.

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.C. WILLIAMS
 UTAH

SHEET TITLE: **FOOTING AND FOUNDATION DETAILS**

REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY: AGW
 PROJECT NO.: 07002
 DATE: AUGUST 22, 2007

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 DRAWING NO.: S501

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KEYED NOTES

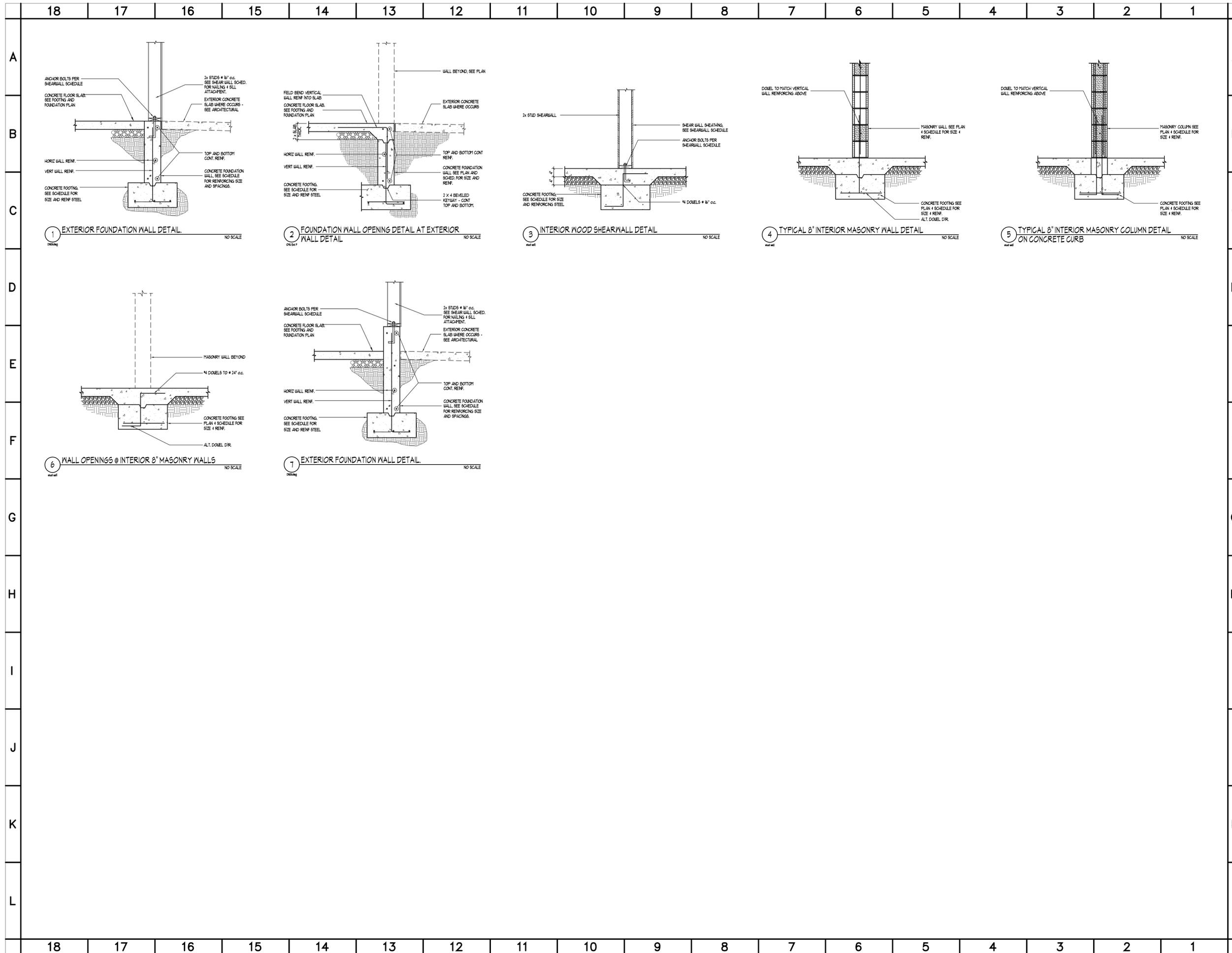
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SHEET TITLE **FOOTING AND FOUNDATION DETAILS**

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DRAWN BY: AGW CHECKED BY: DMF
PROJECT NO.: 07002 DRAWING NO.: S502
DATE: AUGUST 22, 2007



KEYED NOTES

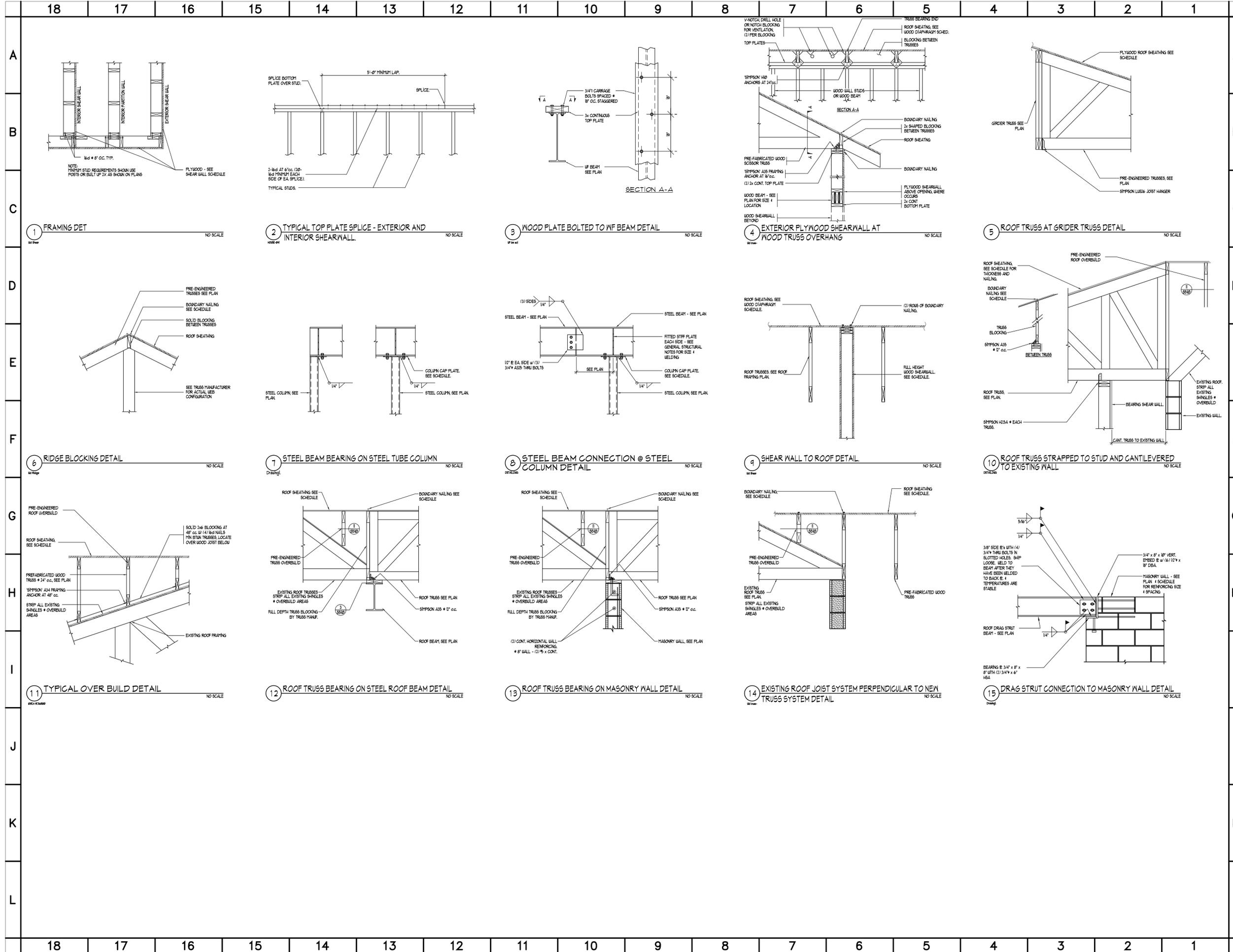
NO.	DESCRIPTION
1	FRAMING DET
2	TYPICAL TOP PLATE SPLICE - EXTERIOR AND INTERIOR SHEARWALL
3	WOOD PLATE BOLTED TO WF BEAM DETAIL
4	EXTERIOR PLYWOOD SHEARWALL AT WOOD TRUSS OVERHANG
5	ROOF TRUSS AT GIRDER TRUSS DETAIL
6	RIDGE BLOCKING DETAIL
7	STEEL BEAM BEARING ON STEEL TUBE COLUMN
8	STEEL BEAM CONNECTION @ STEEL COLUMN DETAIL
9	SHEAR WALL TO ROOF DETAIL
10	ROOF TRUSS STRAPPED TO STUD AND CANTILEVERED TO EXISTING WALL
11	TYPICAL OVER BUILD DETAIL
12	ROOF TRUSS BEARING ON STEEL ROOF BEAM DETAIL
13	ROOF TRUSS BEARING ON MASONRY WALL DETAIL
14	EXISTING ROOF JOIST SYSTEM PERPENDICULAR TO NEW TRUSS SYSTEM DETAIL
15	DRAG STRUT CONNECTION TO MASONRY WALL DETAIL

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

SHEET TITLE **ROOF FRAMING DETAILS**

REVISIONS	DATE	BY	DESCRIPTION
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KEYED NOTES

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	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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1 CONCRETE FOOTING SCHEDULE

NO SCALE

MARK	WIDTH	LENGTH	THICKNESS	CROSSWISE REINFORCING NO. / SIZE / LENGTH / SPACE	LENGTHWISE REINFORCING NO. / SIZE / LENGTH / SPACE	REMARKS
FC1.0	1'-6"	CONT.	12"	NONE REQUIRED	3 #4 CONT. 6'	
FC2.0	2'-0"	CONT.	12"	NONE REQUIRED	3 #4 CONT. 9'	
FC3.0	3'-0"	3'-0"	12"	3 #5 2'-6" 5'	3 #5 2'-6" 5'	
FC3.5	3'-6"	3'-6"	12"	3 #5 3'-0" 18"	3 #5 3'-0" 18"	

NOTES:
1. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE.
2. TOP REINFORCING WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" CLEAR CONCRETE COVER.
3. THE SCHEDULED FOOTINGS ARE NOT NECESSARILY ALL USED.
4. FC-CONTINUOUS FOOTING.
FB-SQUARE FOOTING.

2 CONCRETE WALL SCHEDULE

NO SCALE

MARK	THICKNESS	Fc psi	REINFORCING	TYPE	COMMENTS
WC-1	8"	3000	4# AT 32"oc. 4# AT 24"oc. (2) #5 x CONT.	A	

NOTES:
1. EXTEND VERTICAL REINFORCEMENT UP INTO MASONRY WALL ABOVE AND USE AS DOUELS FOR THE MASONRY WALL. SPLICE WITH MASONRY WALL REINFORCEMENT PER REINFORCING LAP SCHEDULE ON SEAM.
2. WALLS OVER 10'-0" IN HEIGHT, DO NOT INSTALL FORMS UNTIL REBAR INSPECTION HAS OCCURRED.
3. INSTALL VERTICAL REINFORCING 1/2" OFF INSIDE FACE OF WALL.
4. DO NOT BACKFILL AGAINST WALL PRIOR TO INSTALLING FIRST FLOOR DIAPHRAGM.

3 CONCRETE REBAR LAP SPICE SCHEDULE

NO SCALE

LINTEL MARK	LINTEL DEPTH	LINTEL SPAN MAXIMUM	REINFORCING	COMMENTS
ML-2	16"	-	(2) #5 BAR CONT TOP & BOTTOM 5" @ 8" O.C.	

MASONRY LINTEL NOTES:
1. LINTEL WIDTH AND MATERIAL TYPE SHALL BE THE SAME AS THE WALL IN WHICH THE LINTEL IS CONSTRUCTED.
2. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR COLUMN AT EACH END.
3. MASONRY LINTEL #1 SHALL BE USED OVER OPENINGS IN MASONRY WALLS WHEN A SPECIFIC MASONRY LINTEL IS NOT OTHERWISE SPECIFIED. WHEN A LINTEL IS SPECIFIED ON THE PLANS, THE MAXIMUM SPAN AS NOTED IN THIS SCHEDULE SHALL NOT APPLY. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SPECIFIED ON THE PLANS WHICH HAVE A SPAN GREATER THAN 10'-0".
4. MASONRY LINTEL #1 SHALL NOT BE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS UNLESS NOTED OTHERWISE ON THE PLANS. JOISTS SHALL NOT BEAR ON ANY LINTEL LESS THAN 1/2" DEEP. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SHOWN ON THE PLANS WHICH ARE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS.
5. EXTEND ALL HORIZONTAL REINFORCING 48 BAR DIAMETERS MINIMUM BEYOND THE EDGE OF ALL OPENINGS. HORIZONTAL REINFORCING CANNOT EXTEND 48 BAR DIAMETERS BEYOND EDGE OF OPENING PROVIDED 30" STANDARD HOOK.
6. SPLICE TOP BARS AT MIDSPAN OF LINTEL ONLY AND BOTTOM BARS OVER SUPPORTS ONLY.
7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THRU MASONRY LINTELS WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE. USE THE LARGER REINFORCING.
8. DOUEL VERTICAL REINFORCING OF WALL ABOVE LINTEL INTO THE FULL DEPTH OF LINTEL OR 48 BAR DIAMETERS WHICHEVER IS LESS.
9. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.
10. ALTERNATE STIRRUP DIRECTION EVERY OTHER STIRRUP.

4 EPOXY DowEL EMBEDMENT SCHEDULE

NO SCALE

MARK	COLUMN SIZE	STEEL BASE PLATE	STEEL GAP PLATE	COMMENTS
SC-1	18" x 18" x 14"	3/4" BEP-1	1/2" SCF-1	

NOTES:
1. SEE GENERAL STRUCTURAL NOTES (GEN) FOR GRADES AND OTHER SPECIFICATIONS.
2. ALL ANCHOR BOLTS SHALL BE 3/4" x 12" 1/2" BOLTS WITH A MINIMUM OF A 3" EMBEDMENT & 3" PROJECTION. ANY HOLES LARGER THAN 5/16" SHALL HAVE 5/16" PLATE WASHER INSTALLED BETWEEN THE MEMBER AND THE HARDENED WASHERS. DO NOT FIELD ANY ANCHOR BOLTS. THIS INCLUDES HOOK BOLDING. THE ANCHOR BOLTS SPECIFIED IN THIS NOTE ARE TYPICAL UNLESS NOTED OTHERWISE.
3. ALL GAP PLATE BOLTS ARE TO BE 3/4" A-308 BOLTS UNLESS NOTED OTHERWISE.
4. SEE DETAIL FOR STEEL COLLING EMBEDDED IN MASONRY / CONCRETE WALLS.

5 MASONRY COLUMN SCHEDULE

NO SCALE

MARK	WOOD STUDS	TRIMMER STUDS	TYPE	COMMENTS
WC-1	(1) 2x6	(1) 2x6	A	
WC-2	(1) 2x6	(2) 2x6	A	
WC-3	(1) 2x6	(4) 2x6	B	
WC-4	6x6	(1) 2x6	A	
WC-5	6x6	--	--	
WC-6	(2) 2x6	--	--	
WC-7	(2) 2x4	--	--	

NOTES:
1. USE 16D NAILS.
2. ADJACENT NAILS ARE TO BE DRIVEN FROM OPPOSING SIDES OF COLUMN.
3. 2x4 COLUMNS REQUIRE ONE ROW OF STAGGERED NAILS.
4. 2x6 (5 1/2" LVL) AND 2x8 (7 1/4" LVL) REQUIRE TWO ROWS OF NAILS.
5. 2x8 (5 1/4" LVL) AND 2x10 (7 1/4" LVL) COLUMNS REQUIRE THREE ROWS OF NAILS.
6. KING STUDS EXTEND FROM BOTTOM WALL PLATE TO TOP WALL PLATE.
7. TRIMMER STUDS EXTEND FROM BOTTOM WALL PLATE TO UNDERSIDE OF BEAM OR HEADER.

6 MASONRY WALL SCHEDULE

NO SCALE

MARK	THICKNESS	HEIGHT	MATERIALS	SOLID GROUT	REINFORCING	SPECIAL INSPECTION REQUIRED	COMMENTS
MW-1	8"	FULL HEIGHT	CMU	NO	5" AT 32"oc. 5" AT 48"oc.	NO	YES

NOTES:
1. MASONRY WALLS NOT DESIGNATED ON THE PLANS SHALL BE REINFORCED AS FOLLOWS:
VERTICAL REINFORCING: 5 BARS AT 32"oc.
HORIZONTAL REINFORCING: 5 BARS AT 48"oc.
2. COORDINATE WITH ARCHITECTURAL DRAWINGS, MASONRY WALL FINISHES, TYPES OF MATERIAL, COURSING, ETC.
3. DO NOT SOLID GROUT WALLS UNLESS NOTED OTHERWISE.
4. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
5. VERTICAL REINFORCING SHALL BE CENTERED IN THE WALL UNLESS NOTED OTHERWISE.
6. (7) VERTICAL BARS MINIMUM AT ALL CORNERS AND END OF WALLS.
7. HORIZONTAL WALL REINFORCING SHALL BE PLACED BETWEEN VERTICAL MASONRY COLUMN REINFORCING BARS.
8. HORIZONTAL WALL REINFORCING SHALL CONTINUE THRU MASONRY LINTELS WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE. USE THE LARGER REINFORCING.
9. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.
10. COORDINATE ALL MASONRY LAP SPLICES WITH THE MASONRY REINFORCING LAP SCHEDULE.
11. EF INDICATES EACH FACE.

7 MASONRY REINFORCING LAP SCHEDULE

NO SCALE

BAR SIZE	(1) BAR PER CELL	(2) BARS PER CELL
#4	24"	24"
#5	28"	28"
#6	48"	80"
#7	68"	120"

8 MASONRY LINTEL SCHEDULE

NO SCALE

MARK	PLYWOOD	NAIL SIZE	EDGE NAIL (EN)	FIELD NAIL (FN)	SILL NAILING TO WOOD	SILL BOLTING TO CONCRETE	SIDE
SW-1	1/2" PLYWOOD / OSB	8d	6" oc.	12" oc.	-	3/4" x 12" @ 32"oc.	1
SW-2	1/2" PLYWOOD / OSB	8d	4" oc.	12" oc.	-	3/4" x 12" @ 8"oc.	1
SW-3	1/2" PLYWOOD / OSB	8d	3" oc.	12" oc.	-	3/4" x 12" @ 8"oc.	1
SW-4	1/2" PLYWOOD / OSB	8d	4" oc.	12" oc.	-	3/4" x 12" @ 6"oc.	2
SW-5	1/2" PLYWOOD / OSB	8d	3" oc.	12" oc.	-	3/4" x 12" @ 4"oc.	2
SW-6	1/2" PLYWOOD / OSB	8d	2" oc.	12" oc.	-	3/4" x 12" @ 4"oc.	2

NOTES:
1. MIN NAIL PENETRATION INTO FRAMING 8d-11/2", 10d-1 1/8".
2. USE COMMON NAILS.
3. USE 3x NOMINAL STUDS OR THICKER AT ALL JOINT STUDS END STUDS AND ALL JOINT BLOCKING AS SPECIFIED IN THE IRC 2006 TABLE 2306.4(1) NOTE 1. THIS APPLIES AT SHEAR WALLS 3, 4, 5, & 6.
4. USE 1/4" x 2" x 2" SQUARE PLATE WASHERS AT ALL SHEAR WALL ANCHOR BOLTS.

9 STEEL COLUMN SCHEDULE

NO SCALE

LOCATION	PLYWOOD	NAIL SIZE	EDGE NAIL	FIELD NAIL	BOUNDARY NAIL	EDGE BLOCK
ROOF	1/2" OSB	8d	4"oc.	12"oc.	4"oc.	YES 2x PLAT

NOTES:
1. MIN NAIL PENETRATION INTO FRAMING 8d-11/2", 10d-1 1/8".
2. USE SCREW SHANK NAILS AT FLOOR PLYWOOD.
3. USE COMMON NAILS.
4. ALL BOUNDARY MEMBERS SHALL BE 4 x 3 MEMBER MINIMUM.

10 WOOD COLUMN SCHEDULE

NO SCALE

CONNECTION NAILING

CONNECTION	NAILING
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	8d at 12" oc.
TOP PLATE TO STUD END NAIL	2-6d
STUD TO SOLE PLATE, END NAIL	2-6d
DOUBLE STUDS FACE NAIL	8d at 12" oc.
CONTINUOUS HEADERS TO STUD, TOE NAIL	8d at 12" oc.
TOP PLATES, LAPS & INTERSECTION, FACE NAIL	2-6d
CONTINUOUS HEADER, TWO PIECES	8d at 12" oc. along as edge
CEILING JOISTS TO PLATE, TOE NAIL	3-8d
CONTINUOUS HEADERS TO STUD, TOE NAIL	4-8d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-6d
RAFTERS TO PLATE, TOE NAIL	3-8d
1" BRACE TO EACH STUD & PLATE, FACE NAIL	2-8d
BUILT-UP CORNER STUDS	8d at 12" oc.
BUILT-UP GIRDER & BEAMS	8d at 12" oc. at top & bottom staggered 2-6d at ends & 4 at ea. splice

* PLYWOOD & PARTICLEBOARD:
SHEAR FLOOR & WALL SHEATHING (TO FRAMING)
1/2" AND LESS: 8d or 10d
3/4" - 1": 8d
1" - 1 1/4": 10d or 8d
1 1/2" - 2": 10d or 8d
2" AND LESS: 6d
3/4" AND LESS: 8d
1" - 1 1/4": 10d or 8d

* NAILS SPACED AT 6" INCHES ON CENTER AT EDGES, 12" INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6" INCHES AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF DIAPHRAGMS AND SHEAR WALLS, REFER TO SHEAR WALL SCHEDULE.

11 HOLD DOWN ANCHOR SCHEDULE

NO SCALE

EDGE NAILING TO UPPER TOP PLATE SHALL BE STAGGERED BETWEEN TOP P'S.
BLOCK ALL JOINTS.

1/8" GAP AT END JOINTS.

1/8" GAP AT SIDE JOINTS.

END STUDS TIEDOWN WHERE APPLIES.

EDGE NAIL.

FIELD NAILING.

END STUDS.

TIEDOWN WHERE APPLIES.

EDGE NAILING.

EDGE OF FLY SHEETS CENTERED ON STUDS AND BLOCKS.

SILL.

JOINT STUD.

EDGE NAILING.

EDGE OF FLY SHEETS CENTERED ON STUDS AND BLOCKS.

STAGGER JOINTS.

OTHER EDGE.

EDGE BLOCKING OMIT ONLY WHEN NOTED. USE 3/4" PLAT FOR BLOCK UNO.

1/8" GAP AT SIDE JOINTS.

FIELD NAILING (FN).

CONTINUOUS EDGE.

STAGGER JOINTS.

OTHER EDGE.

EDGE BLOCKING OMIT ONLY WHEN NOTED. USE 3/4" PLAT FOR BLOCK UNO.

12 SHEAR WALL SCHEDULE

NO SCALE

1/8" GAP AT END JOINTS.

1/8" GAP AT SIDE JOINTS.

END STUDS TIEDOWN WHERE APPLIES.

EDGE NAIL.

FIELD NAILING.

END STUDS.

TIEDOWN WHERE APPLIES.

EDGE NAILING.

EDGE OF FLY SHEETS CENTERED ON STUDS AND BLOCKS.

SILL.

JOINT STUD.

EDGE NAILING.

EDGE OF FLY SHEETS CENTERED ON STUDS AND BLOCKS.

STAGGER JOINTS.

OTHER EDGE.

EDGE BLOCKING OMIT ONLY WHEN NOTED. USE 3/4" PLAT FOR BLOCK UNO.

1/8" GAP AT SIDE JOINTS.

FIELD NAILING (FN).

CONTINUOUS EDGE.

STAGGER JOINTS.

OTHER EDGE.

EDGE BLOCKING OMIT ONLY WHEN NOTED. USE 3/4" PLAT FOR BLOCK UNO.

13 DIAPHRAGM SCHEDULE

NO SCALE

1/8" GAP AT END JOINTS.

1/8" GAP AT SIDE JOINTS.

END STUDS TIEDOWN WHERE APPLIES.

EDGE NAIL.

FIELD NAILING.

END STUDS.

TIEDOWN WHERE APPLIES.

EDGE NAILING.

EDGE OF FLY SHEETS CENTERED ON STUDS AND BLOCKS.

SILL.

JOINT STUD.

EDGE NAILING.

EDGE OF FLY SHEETS CENTERED ON STUDS AND BLOCKS.

STAGGER JOINTS.

OTHER EDGE.

EDGE BLOCKING OMIT ONLY WHEN NOTED. USE 3/4" PLAT FOR BLOCK UNO.

1/8" GAP AT SIDE JOINTS.

FIELD NAILING (FN).

CONTINUOUS EDGE.

STAGGER JOINTS.

OTHER EDGE.

EDGE BLOCKING OMIT ONLY WHEN NOTED. USE 3/4" PLAT FOR BLOCK UNO.

14 NAILING SCHEDULE

NO SCALE

CONNECTION NAILING

CONNECTION	NAILING
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	8d at 12" oc.
TOP PLATE TO STUD END NAIL	2-6d
STUD TO SOLE PLATE, END NAIL	2-6d
DOUBLE STUDS FACE NAIL	8d at 12" oc.
CONTINUOUS HEADERS TO STUD, TOE NAIL	8d at 12" oc.
TOP PLATES, LAPS & INTERSECTION, FACE NAIL	2-6d
CONTINUOUS HEADER, TWO PIECES	8d at 12" oc. along as edge
CEILING JOISTS TO PLATE, TOE NAIL	3-8d
CONTINUOUS HEADERS TO STUD, TOE NAIL	4-8d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-6d
RAFTERS TO PLATE, TOE NAIL	3-8d
1" BRACE TO EACH STUD & PLATE, FACE NAIL	2-8d
BUILT-UP CORNER STUDS	8d at 12" oc.
BUILT-UP GIRDER & BEAMS	8d at 12" oc. at top & bottom staggered 2-6d at ends & 4 at ea. splice

* PLYWOOD & PARTICLEBOARD:
SHEAR FLOOR & WALL SHEATHING (TO FRAMING)
1/2" AND LESS: 8d or 10d
3/4" - 1": 8d
1" - 1 1/4": 10d or 8d
1 1/2" - 2": 10d or 8d
2" AND LESS: 6d
3/4" AND LESS: 8d
1" - 1 1/4": 10d or 8d

* NAILS SPACED AT 6" INCHES ON CENTER AT EDGES, 12" INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6" INCHES AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF DIAPHRAGMS AND SHEAR WALLS, REFER TO SHEAR WALL SCHEDULE.

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

SHEET TITLE: STRUCTURAL SCHEDULES

REVISIONS DATE BY DESCRIPTION

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DRAWN BY: AGW
PROJECT NO.: 07002
DATE: AUGUST 22, 2007

CHECKED BY: DMF
DRAWING NO.: S601

LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

A
B
C
D
E
F
G
H
I
J
K
L

SINGLE LINE	DOUBLE LINE	
		POSITIVE PRESSURE DUCT - RISE
		POSITIVE PRESSURE DUCT - DROP
		NEGATIVE PRESSURE DUCT - RISE
		NEGATIVE PRESSURE DUCT - DROP
		ROUND DUCT - RISE
		ROUND DUCT - DROP
		UNDER FLOOR DUCT
		TURNING VANES
		FRESH AIR LOUVER
		RELIEF AIR OR EXHAUST AIR LOUVER
		CEILING SUPPLY DIFFUSER
		CEILING RETURN REGISTER
		CEILING EXHAUST REGISTER (BALANCE TO MATCH SUPPLY IF RETURN CFM IS NOT SHOWN)
		SIDEWALL SUPPLY REGISTER
		SIDEWALL EXHAUST OR RETURN REGISTER
		CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT
		CEILING RETURN AIR GRILLE W/ SOUND BOOT
		LINEAR DIFFUSER WITH PLENUM AND FLEXIBLE DUCT CONNECTION. NO. OF SLOTS ON TOP: ACTIVE LENGTH AND CFM ON BOTTOM
		FLEXIBLE DUCT CONNECTION
		FLEXIBLE DUCT
		FAN
		RECTANGULAR DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
		ROUND DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.
		INCLINED RISE
		INCLINED DROP
		R/W=1. ROUND DUCT SIMILAR TO RECTANGULAR
		RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.
		RECTANGULAR TO ROUND DUCT TRANSFORMATION
		BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.
		TAP ENTRY AREA EQUALS 150% OF BRANCH AREA
		MANUAL VOLUME DAMPER
		FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.
		COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL
		SMOKE DAMPER W/ ACCESS PANEL
		ATC DAMPER
		ACCESS PANEL IN DUCT OR PLENUM
		HEATING OR COOLING COIL IN DUCT
		SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2" TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.

	4-WAY BLOW PATTERN
	3-WAY BLOW PATTERN
	2-WAY BLOW PATTERN
	2-WAY BLOW PATTERN
	1-WAY BLOW PATTERN
	LOW PRESSURE CONDENSATE
	MEDIUM PRESSURE CONDENSATE
	HIGH PRESSURE CONDENSATE
	LOW PRESSURE STEAM
	MEDIUM PRESSURE STEAM
	HIGH PRESSURE STEAM
	VACUUM
	PUMPED CONDENSATE
	MAKE UP WATER
	NATURAL GAS
	EXISTING PIPING
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
	HEATING HOT WATER SUPPLY
	HEATING HOT WATER RETURN
	GLYCOL HEAT RECOVERY PIPING
	GLYCOL PIPING SOLUTION
	LIQUEFIED PETROLEUM GAS
	EXISTING PIPING TO BE REMOVED
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	HOT GAS
	SOLENOID VALVE
	EXPANSION JOINT
	ALIGNMENT GUIDE
	DEMOLITION
	PRESSURE GAUGE WITH SHUT-OFF COCK
	PRESSURE GAUGE WITH PIGTAIL
	FLANGE
	UNION
	FLOW METER ORIFICE
	AIR VENT-MANUAL
	AIR VENT-AUTO

	FLOW SWITCH
	PRESSURE SWITCH
	REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN
	PRESSURE REDUCING, SELF CONTAINED VALVE
	PRESSURE REDUCING, EXTERNAL PRESSURE VALVE
	BALL VALVE (PIPE SIZES 2" AND SMALLER) BUTTERFLY VALVE (PIPE SIZES 2-1/2" AND LARGER)
	CHECK VALVE
	MOTOR OPERATED BUTTERFLY VALVE
	GAS COCK
	RELIEF VALVE
	GATE VALVE
	ATC VALVE - 2 WAY
	ATC VALVE - 3 WAY
	GLOBE VALVE
	FLOW CONTROL VALVE
	CALIBRATED BALANCING VALVE
	SHUT-OFF COCK FOR USE WITH PRESSURE GAUGE
	PUMP
	FLEXIBLE CONNECTION
	FLOW METER
	90° ELBOW
	45° ELBOW
	REDUCER
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE WHERE DISCHARGE IS NOT PIPED TO DRAIN
	THERMOMETER 0-100°F
	THERMOSTAT
	NIGHT THERMOSTAT
	SENSOR
	STEAM TRAP, F&T=FLOAT & THERMOSTATIC
	B=BUCKET, T=THERMOSTATIC
	DUCT SMOKE DETECTOR
	ARROW INDICATES DIRECTION OF FLOW IN PIPE
	LEADER INDICATES DOWNWARD SLOPE
	PIPE INTO PLANE
	PIPE OUT OF PLANE
	PIPE BRANCH - IN TO PLANE
	PIPE BRANCH - OUT OF PLANE
	PIPE BRANCH - IN PLANE

	NRS GATE VALVE WITH SUPERVISION
	FLOW SWITCH
	HOSE VALVE
	ROOF DRAIN
	ROOF DRAIN OVERFLOW
	CLEAN-OUT
	FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE
	VENT THRU ROOF
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC RECIRCULATING HOT WATER
	SEWER (BELOW GRADE)
	SEWER (ABOVE GRADE)
	VENT (SEWER)
	PLUMBING FIXTURES
	POINT OF CONNECTION
	SECTION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.
	DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO.
	EQUIPMENT IDENTIFICATION
	KEYED NOTE IDENTIFICATION
	ANCHOR

KEYED NOTES



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 UTAH

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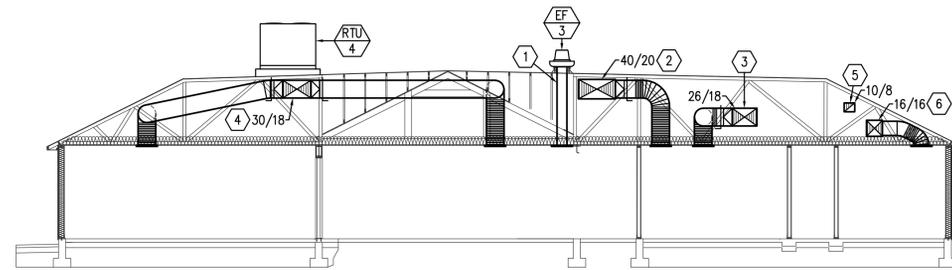
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DATE	AUG 22, 2007		

M001

KEYED NOTES

- ① GREASE TYPE EXHAUST DUCT DOWN TO NEW KITCHEN GREASE HOOD.
- ② MAIN MAKE UP AIR DUCT.
- ③ RTU--2 MAIN SUPPLY DUCT.
- ④ RTU--4 MAIN SUPPLY DUCT.
- ⑤ RTU--1 MAIN RETURN DUCT.
- ⑥ RTU--1 MAIN SUPPLY DUCT.

KEYED NOTES



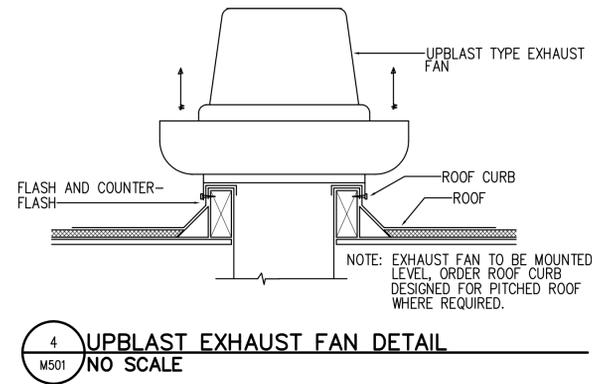
① MECHANICAL SECTION
 M301 SCALE: 1/8" = 1'-0"



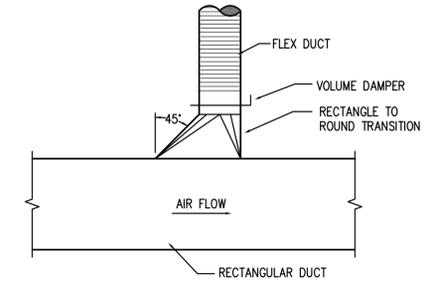
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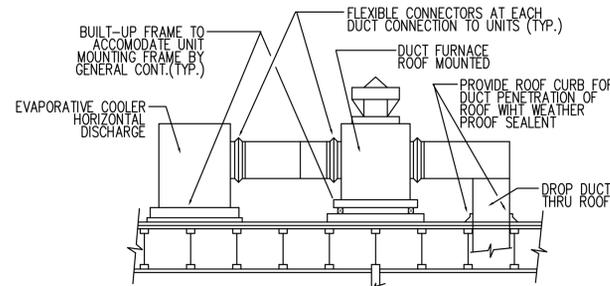
KEYED NOTES



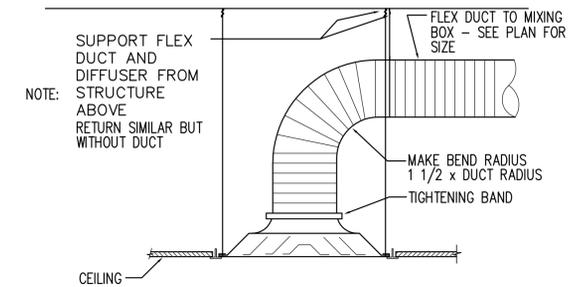
4 UPBLAST EXHAUST FAN DETAIL
 M501 NO SCALE



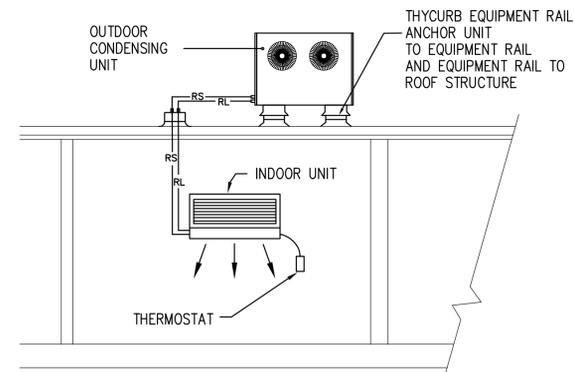
1 HIGH EFFICIENCY TAKE-OFF DETAIL
 M501 NO SCALE



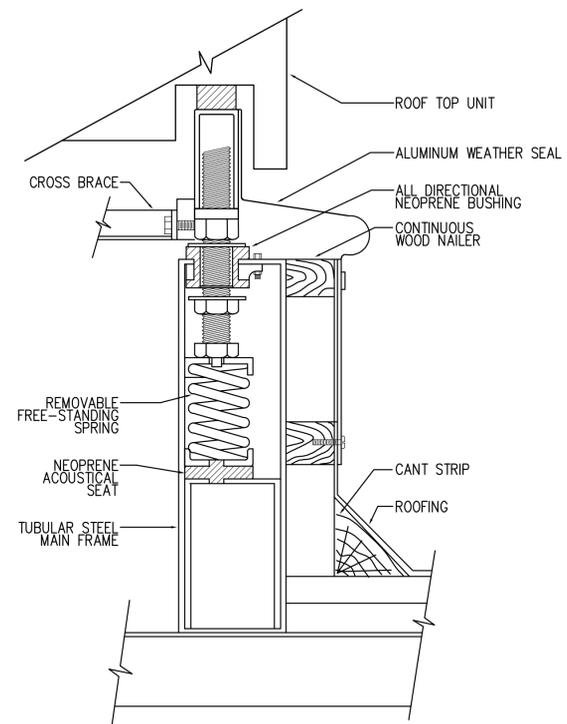
5 ROOF MOUNTED EVAPORATIVE COOLER W/ ROOF MOUNTED DUCT FURNACE DETAIL
 M501 NO SCALE



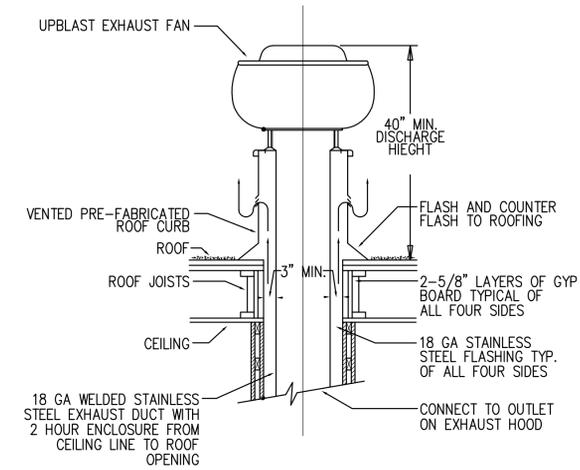
2 DIFFUSER CONNECTION DETAIL
 M501 NO SCALE



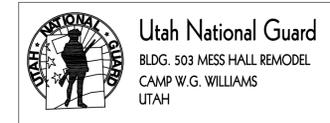
7 DUCTLESS SPLIT SYSTEM DETAIL
 M501 NO SCALE



6 ROOF CURB DETAIL
 M501 NO SCALE



3 GREASE HOOD DUCT ROOF PENETRATION DETAIL
 M501 NO SCALE



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KEYED NOTES

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SPLIT SYSTEM A/C UNITS

ID	MANUF.	MODEL	LOCATION	COOLING CAPACITY (BTU)	INDOOR UNIT					OUTDOOR UNIT				REFRIGERANT LINES		COMMENTS
					CFM RANGE	DIMENSIONS W" x H" x D"	WEIGHT (LBS.)	AMPS (MCA)	VOLTS/PH/HZ.	DIMENSIONS W" x H" x D"	WEIGHT (LBS.)	AMPS (MCA)	VOLTS/PH/HZ.	LIQUID	GAS	
CU-1	CARRIER	38HDF024	SEE PLANS	24,000	NA	NA	NA	NA	NA	37 x 25 x 15	176	16.8	208/1/60	3/8	5/8	(1)(2)(3)(4)
HP-1	CARRIER	40QNC024	SEE PLANS	24,000	460-645	43 x 12 x 8	31	0.5	208/1/60	NA	NA	NA	NA	3/8	5/8	(1)(2)(3)(4)(5)(6)

- (1) CAPACITIES RATED AT THE FOLLOWING OUTDOOR CONDITIONS: COOLING - 95 DEG. F. D.B., 75 DEG. F. W.B.
- (2) CAPACITIES RATED AT THE FOLLOWING INDOOR CONDITIONS: COOLING - 80 DEG. F. D.B., 67 DEG. F. W.B.
- (3) PROVIDE LOW AMBIENT HEAD CONTROLLER TO ALLOW COOLING OPERATION DOWN TO 10 DEG. F. D.B.
- (4) R410A REFRIGERANT.
- (5) WIRELESS REMOTE CONTROLLER. PROVIDE WALL MOUNTED HOLDER.
- (6) PROVIDE ACCESSORY CONDENSATE PUMP FOR INDOOR UNIT.

EXHAUST FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	FAN				ELECTRICAL				NOTES		
				MAXIMUM AIRFLOW RATE (CFM)	STATIC PRESSURE (IN. WATER)	OUTLET VELOCITY (FPM)	FAN SPEED (RPM)	FAN WHEEL DIAMETER (IN)	STATIC EFFICIENCY (%)	MOTOR SIZE (HP)	MOTOR BHP (HP)		MOTOR SPEED (RPM)	VOLT/PH/HZ
EF-1	LOREN-COOK 100SQN-B	RESTROOMS	INLINE	600	0.35	600	1507	10	35	1/6	0.111	1750	120/1/60	
EF-2	LOREN-COOK 195ACRU-XP	DISHWASHER HOOD	ROOF	1500	0.8	427	1317	19.5	47	1/2	0.46	1750	120/1/60	
EF-3	LOREN-COOK 210VCR-HP	GRILL HOOD	ROOF	2700	1.5	681	1243	21	55	1-1/2	1.26	1750	208/3/60	
EF-4	LOREN-COOK 180 ACRU-XP	STEAM KETTLE / STEAMER	ROOF	1000	0.8	284	1226	18	55	1/3	0.27	1750	120/1/60	
EF-5	EXISTING	EXISTING DISHWASHER	ROOF	1800	-	-	-	-	-	-	-	-	-	
EF-6	EXISTING	EXISTING FRYER/RANGE/OVEN	ROOF	2880	-	-	-	-	-	-	-	-	-	
EF-7	LOREN-COOK GC-182	LOCKERS	CEILING	200	0.3	627	1400	-	17	144 W.	-	1400	120/1/60	

ROOFTOP UNIT SCHEDULE

SYMBOL	MANUF. AND MODEL NO.	SUPPLY FAN		HEATING SECTION		COOLING SECTION			FILTER	UNIT WEIGHT (LBS.)	ELECTRICAL		SUPPLY FAN MOTOR (BHP)	V/PH	REMARKS		
		TOTAL AIR FLOW RATE (CFM)	OUTSIDE AIR FLOW RATE (CFM)	EXTERNAL STATIC PRESSURE DROP (IN H2O)	GAS HEATING INPUT STAGE (MBH)	ENTER/LEAVING AIR TEMP. (DEG. F)	SENSIBLE COOLING LOAD (BTUH)	ENTERING AIR TEMP. (DEG. F)			LEAVING AIR TEMP. (DEG. F)	WORKING FLUID				% EFF.	MCA
RTU-1	CARRIER 48PGDC09	3,600	400	0.75	95.2/136	62/89	N.G.	77,420	75/57	52/47	R-410A	30.0	1300.0	52.1	1.5	208/3	1,2,3
RTU-2	CARRIER 48PGEC05	2,000	200	0.75	52.5/75	61/94	N.G.	35,560	75/57	51/47	R-410A	30.0	1000.0	30.2	0.5	208/3	1,2,3
RTU-3	CARRIER 48PGEC14	5,000	1,125	0.75	158.2/226	54/86	N.G.	129,900	80/58	52/47	R-410A	30.0	1500.0	72.3	3.3	208/3	1,2,3
RTU-4	CARRIER 48PGEC14	5,000	1,125	0.75	158.2/226	54/86	N.G.	129,900	80/58	52/47	R-410A	30.0	1500.0	72.3	3.3	208/3	1,2,3

- 1. PROVIDE WITH FACTORY DISCONNECT AND CONVENIENCE POWER SUPPLY OUTLET.
- 2. TWO STAGE GAS HEATING.
- 3. SCHEDULED CAPACITIES ARE VALUES AT ALTITUDE (4200 FEET).

EVAPORATIVE COOLER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR		MAKEUP		ELECTRICAL, PUMP		ELECTRICAL, FAN		MINIMUM MEDIA FACE AREA (FT ²)	PAD THICKNESS (IN)	NOTES
				AIRFLOW RATE (CFM)	EXTERNAL STATIC PRESSURE (IN. WATER)	FLOW RATE (GPM)	MOTOR SIZE (WATTS)	VOLT/PH/HZ	MOTOR SIZE (HP)	VOLT/PH/HZ				
EC-1	MASTER COOL MS628-DM080	ROOF	DIRECT	8000	0.7	0.27	80	120/1/60	3	208/3/60	14.8	8		

GAS FIRED DUCT FURNACE SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	AREA SERVED	INPUT LOAD (BTUH)	OUTPUT LOAD (BTUH)	AIRFLOW RATE (CFM)	EXTERNAL STATIC PRESSURE (IN H2O)	FLUE SIZE (IN)	GAS CONNECTION (NPT)	ELECTRICAL		PHYSICAL WIDTH/DEPTH/HEIGHT (IN)	NOTES
									MAX UNIT AMPS	VOLT/PH		
DF-1	HASTINGS HRDV600A	KITCHEN/DISHWASHING	600,000	480,000	8000	0.16	6	3/4	120/1	104/30/37		

KITCHEN HOOD SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR		PHYSICAL		DUCT CONNECTION LENGTH / WIDTH (IN)	NOTES
				MAXIMUM AIRFLOW RATE (CFM)	STATIC PRESSURE (IN. WATER)	TOTAL LENGTH (IN)	TOTAL WIDTH (IN)		
H-1	ECON-AIR	KITCHEN - DISHWASHER	CLASS II	1500	0.6	86	38	-	
H-2	ECON-AIR	KITCHEN - STEAMER	CLASS II	1000	0.6	60	42	-	
H-3	ECON-AIR EX-2	KITCHEN - GRILL	CLASS I	2700	1.0	108	40	-	1

- 1. PROVIDE HOOD WITH FIRE SUPPRESSION SYSTEM.



MECHANICAL SCHEDULES

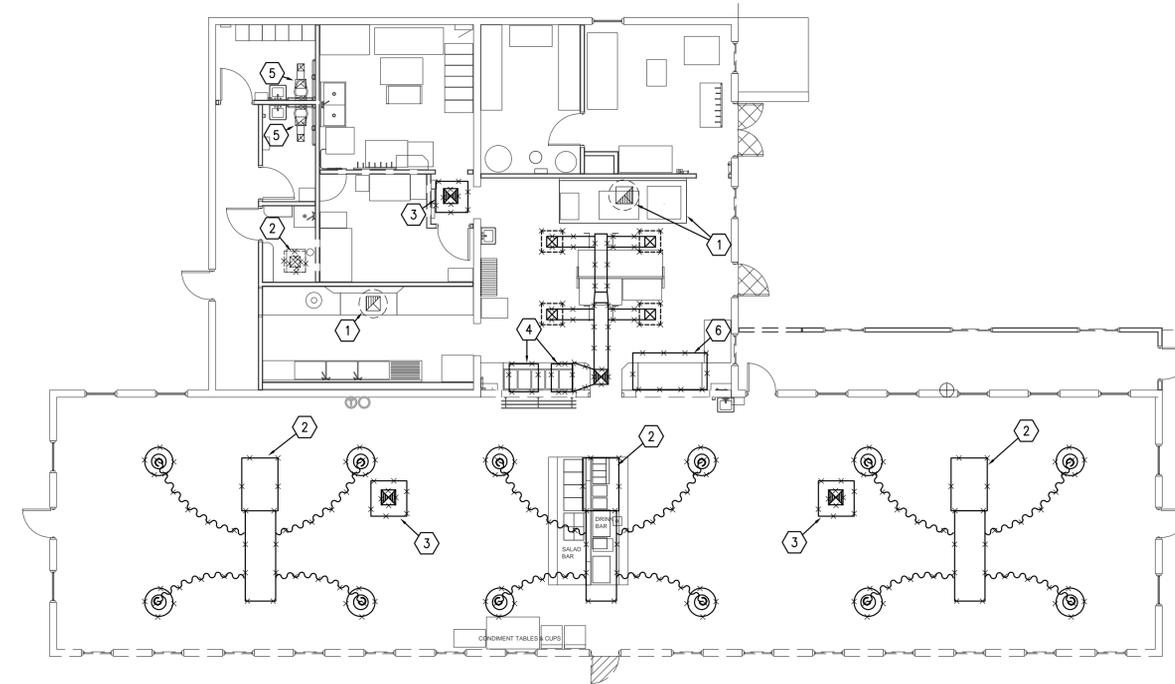
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DATE	AUG 22, 2007		

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- KEYED NOTES**
- 1 EXISTING EXHAUST HOOD AND EXHAUST FAN TO REMAIN. EXHAUST FAN SHALL BE RELOCATED ON NEW ROOF. EXTEND DUCTWORK AS REQUIRED.
 - 2 REMOVE EXISTING FURNACE AND ALL ASSOCIATED DUCTWORK, CONTROLS AND GAS PIPING.
 - 3 REMOVE EXISTING EVAP. COOLER AND ASSOCIATED DUCTWORK AND CONTROLS.
 - 4 REMOVE EXISTING EVAP COOLER, DUCT FURNACE AND ASSOCIATED DUCTWORK, AND CONTROLS.
 - 5 EXISTING EXHAUST FAN, EXHAUST DUCT AND ROOF TERMINATION TO REMAIN.
 - 6 EXISTING KITCHEN HOOD TO BE REMOVED.



 **MECHANICAL DEMOLITION PLAN**
 MD101 SCALE: 1/8" = 1'-0"



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KEYED NOTES

- 1 EXISTING FIXTURES TO REMAIN. CONNECT TO EXISTING DHW & DCW LINES ABOVE CEILING.
- 2 CONNECT TO EXISTING 1 1/2" 25 PSI GAS LINE. FIELD VERIFY EXACT SIZE AND LOCATION.
- 3 NEW ROOTS SERIES B3 ROTARY GAS METER MODEL 5M175 4500 CFH.
- 4 25 PSI TO 4 OUNCE GAS PRESSURE REGULATOR, 4500 CFH.
- 5 SEISMIC SHUT OFF VALVE.
- 6 GAS LINE UP TO ROOFTOP AC UNIT.
- 7 WATER LINE UP TO EVAP COOLER ON ROOF.
- 8 GAS LINE UP TO DUCT FURNACE ON ROOF.
- 9 CONNECT TO EXISTING 4" WASTE LINE. FIELD VERIFY EXACT SIZE, LOCATION AND ELEVATION OF EXISTING PIPING.
- 10 CONNECT TO EXISTING 6" WATER LINE. FIELD VERIFY EXACT SIZE, LOCATION AND ELEVATION OF EXISTING LINE.
- 11 PROVIDE NEW 1 1/2" COMPOUND WATER METER IN CONCRETE METER BOX.
- 12 RUN NEW PIPING IN CHASE CONSTRUCTED AROUND BEAM ON WARM SIDE OF INSULATION. COORDINATE WITH ARCHITECTURAL.
- 13 PROVIDE SHUT OFF VALVE AND DRAIN FOR EVAP COOLER SUPPLY ON WALL. PIPE DRAIN TO SERVICE SINK.
- 14 DROP DHW, DCW AND GAS LINES DOWN WALL. EXTEND TO FIXTURES AND EQUIPMENT BELOW COUNTERTOP.
- 15 INSTALL GAS SHUT OFF VALVE PROVIDED WITH HOOD FIRE PROTECTION SYSTEM.

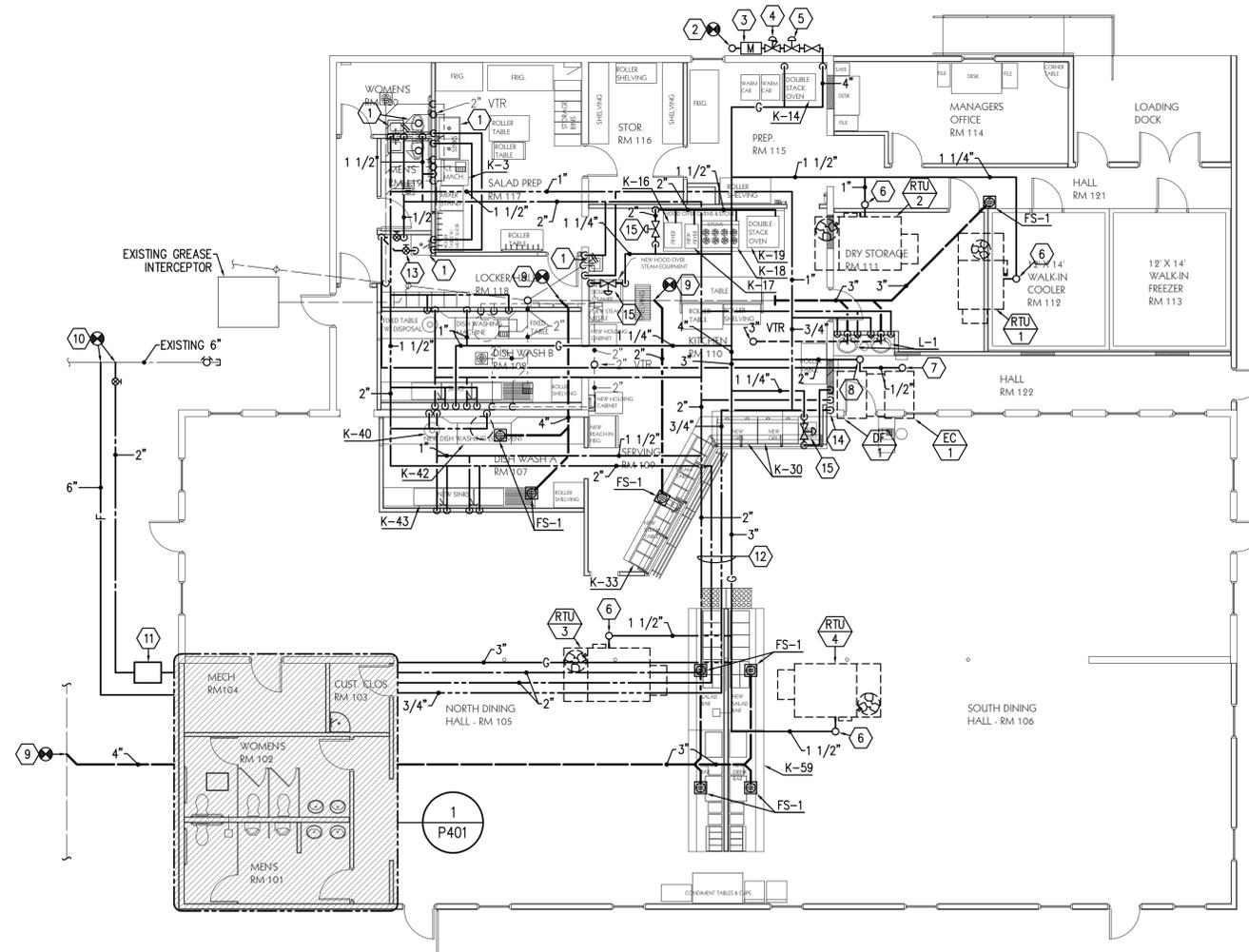
GENERAL NOTES

1. PROVIDE ALL REQUIRED CONNECTIONS TO NEW PLUMBING FIXTURES AND OWNER PROVIDED EQUIPMENT. ALL FIXTURES ARE NEW UNLESS NOTED OTHERWISE. COORDINATE WITH KITCHEN EQUIPMENT. ALL WORK TO BE IN ACCORDANCE WITH LOCAL AND CURRENT PLUMBING CODES.



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PLUMBING PLAN			
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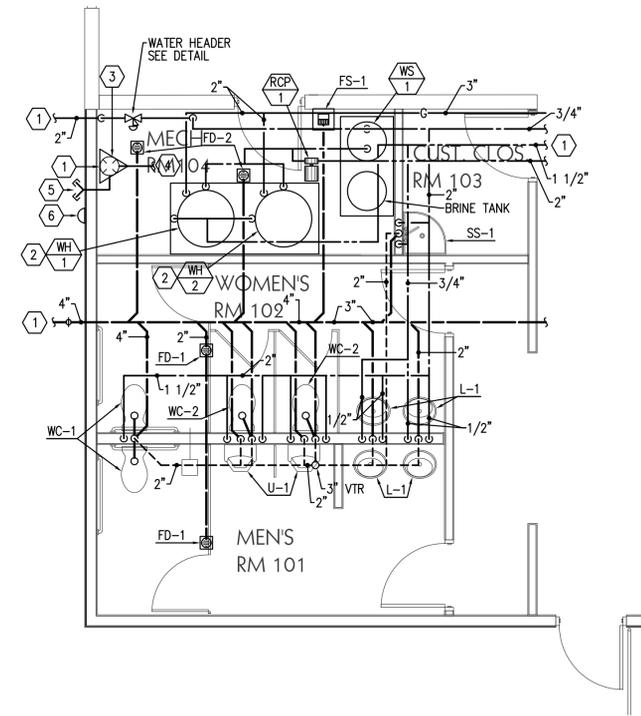
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PLUMBING PLAN
 SCALE: 1/8" = 1'-0"
 P101

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- KEYED NOTES**
- ① SEE SHEET P101 FOR CONTINUATION.
 - ② SEE DETAIL SHEET P501.
 - ③ FIRE SPRINKLER RISER. SEE DETAIL.
 - ④ FIRE SPRINKLER PIPING RUNS IN UNHEATED ATTIC AND SUPPLIED ATTIC SPRINKLERS. PROVIDE ANTI-FREEZE LOOP FOR ENTIRE BUILDING.
 - ⑤ FIRE DEPARTMENT CONNECTION.
 - ⑥ ELECTRIC HORN/STROBE FROM FIRE ALARM PANEL. COORDINATE WITH ELECTRICAL.



1 ENLARGED PLUMBING PLAN
 P401 SCALE: 1/4" = 1'-0"



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KEYED NOTES

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 No. 318658
 Registered Professional Engineer
 State of Utah

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

DETAILS & SCHED.

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 DATE **AUG 22, 2007**

ID	MANUFACTURER	MODEL NO	TYPE	FLUID		PHYSICAL		RELIEF VALVE	DIA./ HEIGHT	NPT FITTING	NOTES
				WORKING FLUID	MIN. TANK ACCEPTANCE	TANK SIZE	TANK SIZE				
DET-1	BELL & GOSSETT	PT-30V	DIAPHRAM	WATER	(GAL)	(GAL)	13.3	14	NA	1 1/2"	1

1. TANK LINER SUITABLE FOR POTABLE WATER

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	NOTES
WC-1	WATER CLOSET	1	--	4	2	FLOOR MTD, FLUSH VALVE, ADA
WC-2	WATER CLOSET	1	--	4	2	FLOOR MTD, FLUSH VALVE
U-1	URINAL	3/4	--	2	2	WALL HUNG, FLUSH VALVE, ADA
L-1	LAVATORY	1/2	1/2	1 1/2	1 1/2	COUNTER MOUNTED, OVAL
S-1	KITCHEN SINK	1/2	1/2	2	1 1/2	THREE COMPARTMENT WITH DRAIN BOARDS
SS-1	SERVICE SINK	3/4	3/4	3	2	--
FD-1	FLOOR DRAIN	--	--	2	2	RESTROOM
FD-2	FLOOR DRAIN	--	--	3	2	MECHANICAL ROOM
FS-1	FLOOR SINK	--	--	3	2	

1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

ID	MANUFACTURER	MODEL NO	TYPE	FLUID		PUMP		ELECTRICAL			NOTES
				FLOW RATE (GPM)	WORKING FLUID	HEAD LOSS (FT)	EFFICIENCY (%)	CONSTRUCTION	MOTOR SIZE (HP)	MOTOR SPEED (RPM)	
RCP-1	BELL & GOSSETT	SERIES PR-3/4"	INLINE	1	WATER	10	70	ALL BRONZE	1/6	1750	115/1/60

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	TOTAL (GRAINS)	NORMAL / MAX WATER		BACKWASH FLOW RATE (GPM)	RESIN QUANTITY (FT^3)	RESIN TANK HGHT/DIA (IN/IN)	BRINE TANK HGHT/DIA (IN/IN)	ELECTRICAL (VOLT/PH)	NOTES
					FLOW/UNIT @ 15/25 PSI LOSS	FLOW RATE (GPM)						
WS-1	MARLO MGT-240-2	MECH. RM.		240,000	74/97	15	8	72/24	50/24	120/1	1	

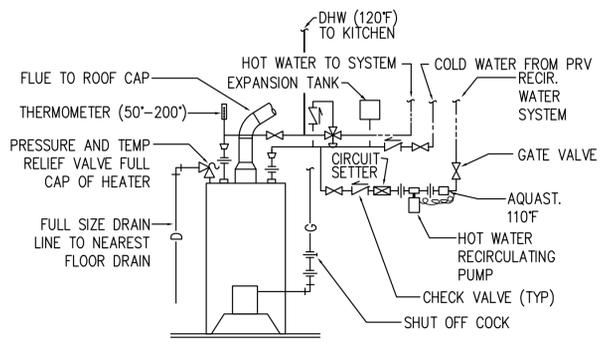
1. PACKAGED EQUIPMENT

ID	FIXTURE	CW (IN)	HW (IN)	W (IN)	V (IN)	GAS (IN)	NOTES
K-3	ICE MACHINE	1/2	--	1 1/2			INDIRECT DRAIN TO FLOOR SINK
K-14	DOUBLE STACK CONVECTION OVEN		--			3/4	88,000 BTUH
K-16	FOOD FRYER					3/4	150,000 BTUH
K-17	FOOD FRYER					3/4	150,000 BTUH
K-18	GAS RANGE					3/4	186,000 BTUH
K-19	DOUBLE STACK CONVECTION OVEN		--			3/4	88,000 BTUH
K-21	DOUBLE STEAMER	1/2		1 1/2		3/4	INDIRECT DRAIN TO FLOOR SINK; 220,000 BTUH
K-30	4'-0" GAS GRILL					3/4	120,000 BTUH
K-33	STEAM TABLE	1/2	1/2	1 1/2			INDIRECT DRAIN TO FLOOR SINK
K-42	DISHWASHING MACHINE	3/4	3/4	2		3/4	INDIRECT DRAIN TO FLOOR SINK
K-43	THREE COMPARTMENT POT SINK	3/4	3/4	2			INDIRECT DRAIN TO FLOOR SINK
K-59	DRINK BAR	3/4	--	2			FIELD VERIFY CONNECTION REQUIREMENTS

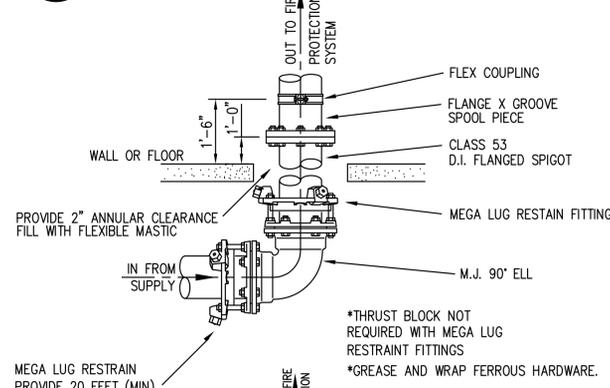
1. ALL UNDER GROUND WASTE AND VENT SHALL BE 2" OR GREATER PER DRAWINGS.

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	SERVICE	INPUT LOAD (BTUH)	EFFICIENCY (%)	TYPE	RECOVERY		TANK SIZE (GAL)	VENT SIZE (IN)	HEIGHT/ DIAMETER (IN)	V/PH	NOTES
							RATE @ 100 F DELTA T	DELTA T					
WH-1	A.O. SMITH BTH-400	MECH. RM.	N.G.	399,900	96		466	130	4	76/33	120/1	1	
WH-2	A.O. SMITH BTH-400	MECH. RM.	N.G.	399,900	96		466	130	4	76/33	120/1	1	

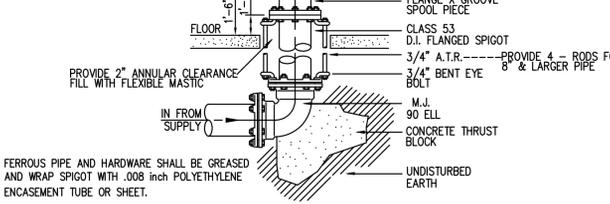
1. WATER HEATER IS DIRECT VENT, SEALED COMBUSTION UNIT. PROVIDE 4" PVC PIPE FOR BOTH INTAKE AND EXHAUST VENT.



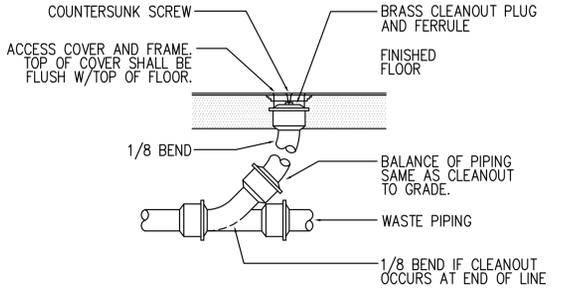
5 GAS FIRED HOT WATER HEATER DETAIL
 P501 NO SCALE



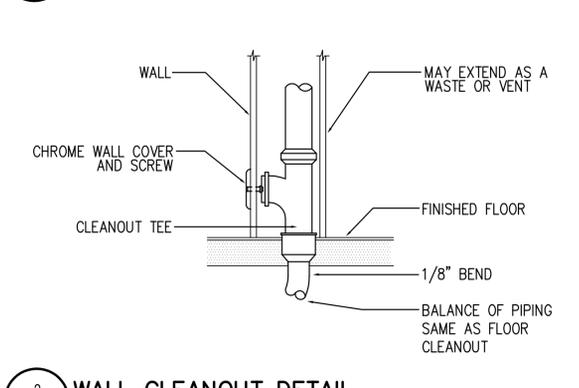
5 FLANGED SPIGOT THRU FLOOR
 P501 NO SCALE



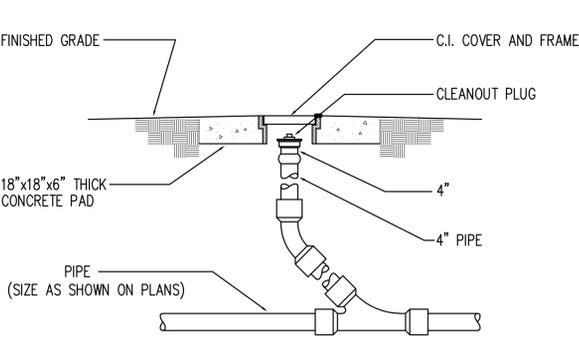
6 ANTIFREEZE FIRE SPRINKLER RISER
 P501 NO SCALE



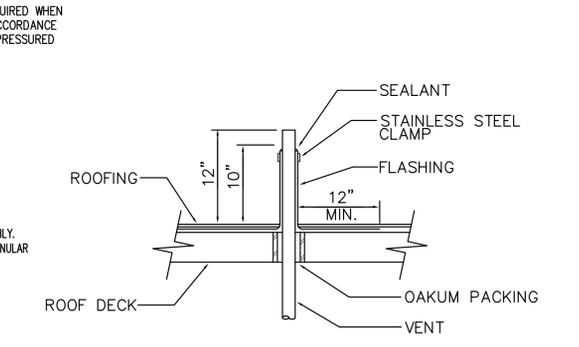
1 FLOOR CLEANOUT DETAIL
 P501 NO SCALE



2 WALL CLEANOUT DETAIL
 P501 NO SCALE



3 CLEANOUT TO GRADE DETAIL (COTG)
 P501 NO SCALE

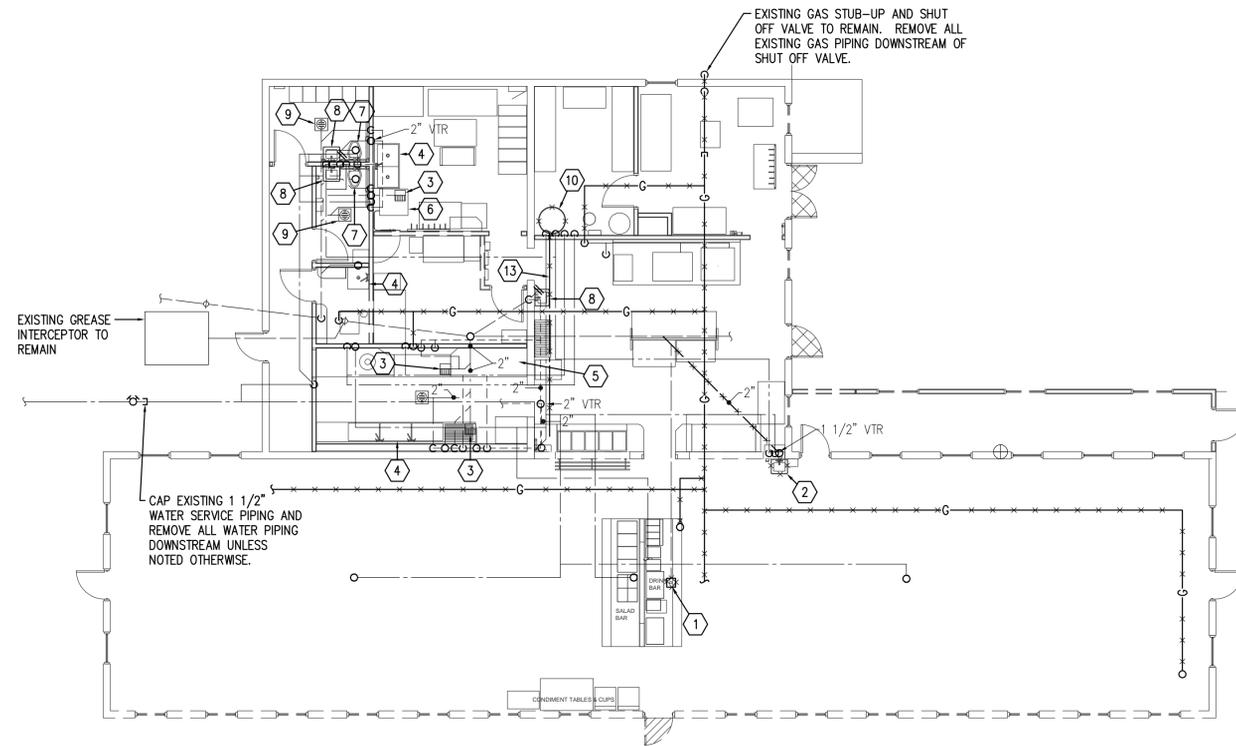


4 VENT THRU ROOF FLASHING & SLEEVING DETAIL
 P501 NO SCALE

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KEYED NOTES

- ① REMOVE EXISTING FLOOR SINK. EXTEND WASTE PIPING TO NEW DRAINS, SEE SHEET P101.
- ② REMOVE EXISTING LAVATORY AND RELATED WATER, WASTE AND VENT PIPING.
- ③ EXISTING FLOOR SINK TO REMAIN.
- ④ EXISTING SINK AND WATER PIPING IN WALL TO REMAIN. SEE SHEET P101 FOR PIPING RECONNECTION.
- ⑤ EXISTING WARE WASHER, BOOSTER HEATER AND WATER PIPING IN WALL TO REMAIN. SEE SHEET P101 FOR RECONNECTION REQUIREMENTS.
- ⑥ EXISTING ICE MAKER AND WATER SUPPLY TO REMAIN. SEE SHEET P101 FOR RECONNECTION REQUIREMENTS.
- ⑦ EXISTING WATER CLOSET AND COLD WATER SUPPLY TO REMAIN. SEE SHEET P101 FOR RECONNECTION REQUIREMENTS.
- ⑧ EXISTING LAVATORY WATER SUPPLY TO REMAIN. SEE SHEET P101 FOR RECONNECTION REQUIREMENTS. PROVIDE POWERS LM495 TMV ON HOT WATER SUPPLY.
- ⑨ EXISTING FLOOR DRAIN TO REMAIN.
- ⑩ REMOVE EXISTING WATER HEATER.



PLUMBING FLOOR PLAN
 PD101 SCALE: 1/8" = 1'-0"



SHEET TITLE			
PLUMBING DEMO			
REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			
DRAWN BY		CHECKED BY	
GR		BB	
PROJECT NO.		DRAWING NO.	
02296480		PD101	
DATE			
AUG 22, 2007			

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SYMBOL LEGEND	
SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
	DETAIL INDICATOR: AS INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
	ELEVATION OR SECTION INDICATOR, EXTERIOR: AS INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ELEVATION OR SECTION INDICATOR, INTERIOR: AS 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.
	EXISTING TO REMAIN LINE: THIN LINE.
	DEMOLITION LINE: DASHED, MEDIUM LINE.
WIRING METHODS	
	WIRING.
	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.
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)	
	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.
	EMERGENCY.
	NIGHT LIGHT: DO NOT SWITCH.
	EGRESS DIRECTION ARROW.
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, CEILING.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
	OCCUPANCY SENSOR, ULTRASONIC, CEILING.
	PHOTOCCELL.
	TIME CLOCK.
	OCCUPANCY SENSOR, SWITCH PACK.
STRUCTURED CABLING	
	TELEPHONE, WALL MOUNTED: WALL PHONE.
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/DATA COMMUNICATION.
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
WIRING DEVICES	
	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, QUADRUPLEX: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
	SWITCH, DIMMER.
	SWITCH, SINGLE POLE ("X" INDICATES FIXTURES CONTROLLED).
	SWITCH, THREE-WAY ("X" INDICATES FIXTURES CONTROLLED).
	SWITCH, FOUR-WAY ("X" INDICATES FIXTURES CONTROLLED).
ELECTRICAL POWER AND DISTRIBUTION	
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	MOTOR.
	TRANSFORMER (ONE-LINE DIAGRAM).
	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
	PANELBOARD WITH SUB FEED LUGS (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	METER.
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
	SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.
FIRE ALARM	
	FIRE SYSTEM ANNUNCIATOR.
	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.

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....	

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
FIRE ALARM	
	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.

ELECTRICAL SHEET INDEX	
SHEET NO	SHEET TITLE
EE001	SYMBOL LEGEND & SHEET INDEX
EE501	TYPICAL MOUNTING HEIGHT DETAILS
EE502	DETAILS & ONE-LINE DIAGRAM
EE503	DETAILS
EE504	DETAILS
ES101	EXISTING ELECTRICAL SITE PLAN
ES102	ELECTRICAL SITE PLAN
ED101	DEMOLITION PLAN
EP101	POWER PLAN
EP601	MECHANICAL EQUIPMENT/PANEL SCHEDULES
EP602	KITCHEN EQUIPMENT SCHEDULES
EL101	LIGHTING PLAN
EL601	LIGHTING FIXTURE SCHEDULE
FA101	FIRE ALARM PLAN
FA601	FIRE ALARM RISER

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	LFCM	LIQUID TIGHT FLEXIBLE METAL CONDUIT
3WAY	THREE-WAY	LFNC	LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT
4OUT	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	MCC	MAIN CIRCUIT BREAKER
AF	ABOVE FINISHED FLOOR	MCB	MOTOR CONTROL CENTER
AFG	ABOVE FINISHED GRADE	MCCB	MOTOR CIRCUIT BREAKER
AIC	AMPERE INTERRUPTING CAPACITY	MCP	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	MOCOP	MAXIMUM OVERCURRENT PROTECTION
ASC	AMPS SHORT CIRCUIT AUTOMATIC TRANSFER SWITCH	NA	NOT APPLICABLE
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NORMALLY CLOSED NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AV	AUDIO VISUAL	NFC	NATIONAL FIRE CODE
AWG	AMERICAN WIRE GAGE	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
BB XFMR	BUCK-BOOST TRANSFORMER	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
C	CEILING MOUNTED COMMUNITY ANTENNA TELEVISION CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CATV	COMMUNITY ANTENNA TELEVISION	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	OC/P	OVER CURRENT PROTECTION
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED	OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
CKT	CIRCUIT	OF/OI	OWNER FURNISHED/OWNER INSTALLED
CM	CONTRACTOR MANAGER	OFF	OWNER FROM PLANS
CND	CONDUIT	OH DR	OVERHEAD (COILING) DOOR
CO	CONVENIENCE OUTLET	OL	OVERLOAD
COR	CONTRACTING OFFICER'S REPRESENTATIVE	PB	PUSHBUTTON
CP	CONTROL PANEL	PF	POWER FACTOR
CT	CURRENT TRANSFORMER	PH	PHASE
CTV	CABLE TELEVISION	PNL	PANEL
CU	COPPER	PT	POTENTIAL TRANSFORMER
dB	UNIT OF SOUND LEVEL	PTZ	PAN/TILT/ZOOM
DPDT	DOUBLE POLE DOUBLE THROW DISCONNECT SWITCH	QTY	QUANTITY
DS	DISCONNECT SWITCH	R	REFLECTED CEILING PLAN
EA	EACH	RCP	RIGID METAL CONDUIT
EM	EMERGENCY ELECTRICAL METALLIC TUBING	RNC	RIGID NONMETALLIC CONDUIT
EMT	ELECTRICAL METALLIC TUBING	RPM	REVOLUTIONS PER MINUTE
ENT	ELECTRICAL NONMETALLIC TUBING	RR	REMOVE AND RELOCATE
EPO	EMERGENCY POWER OFF EQUIPMENT	SCA	SHORT CIRCUIT AMPS
EXIST	EXISTING	SCBA	STANDARD COLOR AS SELECTED BY ARCHITECT
F	FURNITURE MOUNTED 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 METALCONDUIT	SPST	SINGLE POLE, SINGLE THROW
FOB	FREIGHT ON BOARD	S/S	START/STOP
FVNR	FULL VOLTAGE NON-REVERSING FULL VOLTAGE REVERSING	ST	SINGLE THROW SWITCHBOARD
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	TYP	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 INTERMEDIATE METAL CONDUIT	VA	VOLT AMPERE
IMC	INSULATED/ISOLATED INPUT/OUTPUT	VFC	VARIABLE FREQUENCY CONTROLLER
IN/IS	INSULATED/ISOLATED	W/	WITH
I/O	INPUT/OUTPUT	W/O	WITHOUT
IR	INFRARED	WP	WEATHERPROOF
J-BOX	JUNCTION BOX	XFMR	TRANSFORMER

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SPECTRUM ENGINEERS

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.

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE
Sym Legend & Sheet Index

REVISIONS	DATE	BY	DESCRIPTION
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△			
△			

DRAWN BY: **PSS** CHECKED BY: **DLA**

PROJECT NO: **06296480** DRAWING NO: **EE001**

DATE: **AUG 22, 2007**

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GENERAL SHEET NOTES

1. PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO SPECIFICATIONS SECTION 16071 FOR REQUIREMENTS.

CONDUCTOR AND CONDUIT SCHEDULE

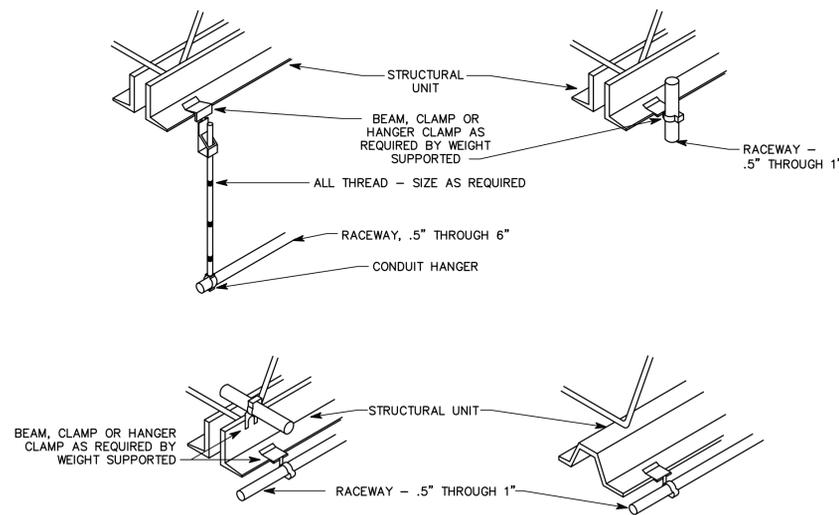
SCHEDULE NUMBER (E.G.) 5_{IG}

SUBSCRIPT (NOTE 5)

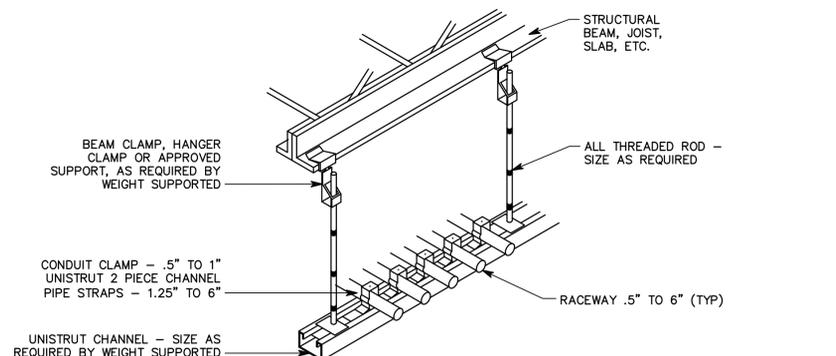
SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1) QTY	CONDUCTOR(NOTE 1) SIZE	IG	SE	NOTES
1	20	.75	2	12	12	12	8 2
2	20	.75	3	12	12	12	8 2,3
3	20	.75	4	12	12	12	8 2,3
4	30	.75	2	10	10	10	8 2
5	30	.75	3	10	10	10	8 2
6	30	.75	4	10	10	10	8 2
7	40	1	2	8	10	8	6 2
8	40	1	3	8	10	8	6 2
9	40	1	4	8	10	8	6 2
10	55	1	2	6	10	8	4 2
11	55	1	3	6	10	8	4 2
12	55	1.25	4	6	10	8	4 2
13	70	1	2	4	8	4	2 2
14	70	1.25	3	4	8	4	2 2
15	70	1.25	4	4	8	4	2 2
16	85	1.25	2	3	8	3	2 2
17	85	1.25	3	3	8	3	2 2
18	85	1.25	4	3	8	3	2 2
19	95	1.25	3	2	8	2	2 2
20	95	1.50	4	2	8	2	2 2
21	130	1.50	3	1	6	2	2 2
22	130	1.50	4	1	6	2	2 2
23	150	2	3	1/0	6	2	1/0 2
24	150	2	4	1/0	6	2	1/0 2
25	175	2	3	2/0	6	2	2/0 2
26	175	2	4	2/0	6	2	2/0 2
27	200	2	3	3/0	6	2	2/0 2
28	200	2.50	4	3/0	6	2	2/0 2
29	230	2.50	3	4/0	4	2	2/0 2
30	230	2.50	4	4/0	4	2	2/0 2
31	255	2.50	3	250	4	1	2/0 2
32	255	2.50	4	250	4	1	2/0 2
33	310	3	3	350	3	1/0	3/0 2
34	310	3	4	350	3	1/0	3/0 2
35	380	3.50	3	500	3	3/0	3/0 2
36	380	4	4	500	3	3/0	3/0 2
37	400	2 EA 2	3	3/0	3	3/0	3/0 2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0 2
39	510	2 EA 2.50	3	250	1	4/0	3/0 2
40	510	2 EA 3	4	250	1	4/0	3/0 2
41	620	2 EA 3	3	350	1/0	4/0	3/0 2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0 2,4
43	760	2 EA 3.50	3	500	1/0	4/0	3/0 2,4
44	760	2 EA 4	4	500	1/0	4/0	3/0 2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0 2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0 2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0 4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0 4
49	1140	3 EA 4	3	500	3/0	4/0	3/0 4
50	1140	3 EA 4	4	500	3/0	4/0	3/0 4
51	1240	4 EA 3	3	350	3/0	4/0	3/0 4
52	1240	4 EA 3	4	350	3/0	4/0	3/0 4
53	1675	5 EA 3.50	4	400	4/0	4/0	4/0 4
54	2010	6 EA 3.50	4	400	250	250	250 4
55	2660	7 EA 4	4	500	350	350	350 4
56	3040	8 EA 4	4	500	500	500	500 4
57	4180	11 EA 4	4	500	500	500	500 4
58		5 EA 4					6
59		5					6
60		10 EA 4					6

- CONDUCTOR AND CONDUIT SCHEDULE NOTES
1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
 2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
 3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
 4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
 5. WHEN SYMBOL SUBSCRIPT INDICATES "IG", INCLUDE "IG" OR INSULATED GROUND CONDUCTOR SCHEDULED ALONG WITH GROUND OR EQUIPMENT GROUND CONDUCTOR. WHEN SYMBOL SUBSCRIPT INDICATES "SE", SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEMS.
 6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

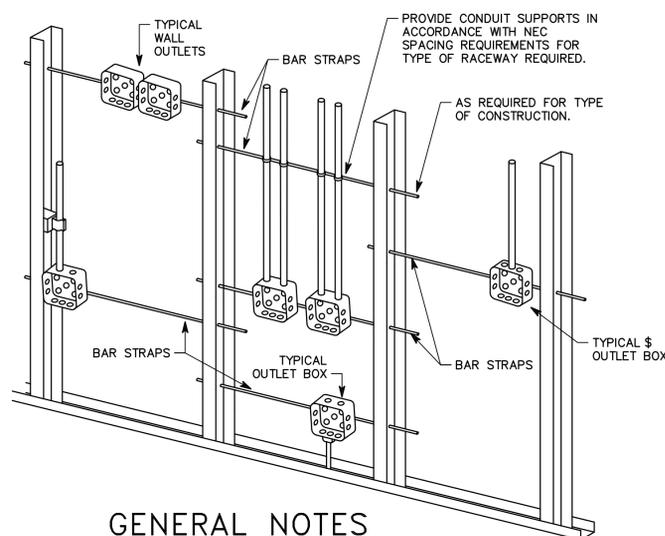
NOTE: THE WIRE SHALL NOT BE USED AS A COMPONENT OF ANY RACEWAY HANGER SYSTEM.



F18 TYPICAL RACEWAY SUPPORT METHODS DETAIL NTS



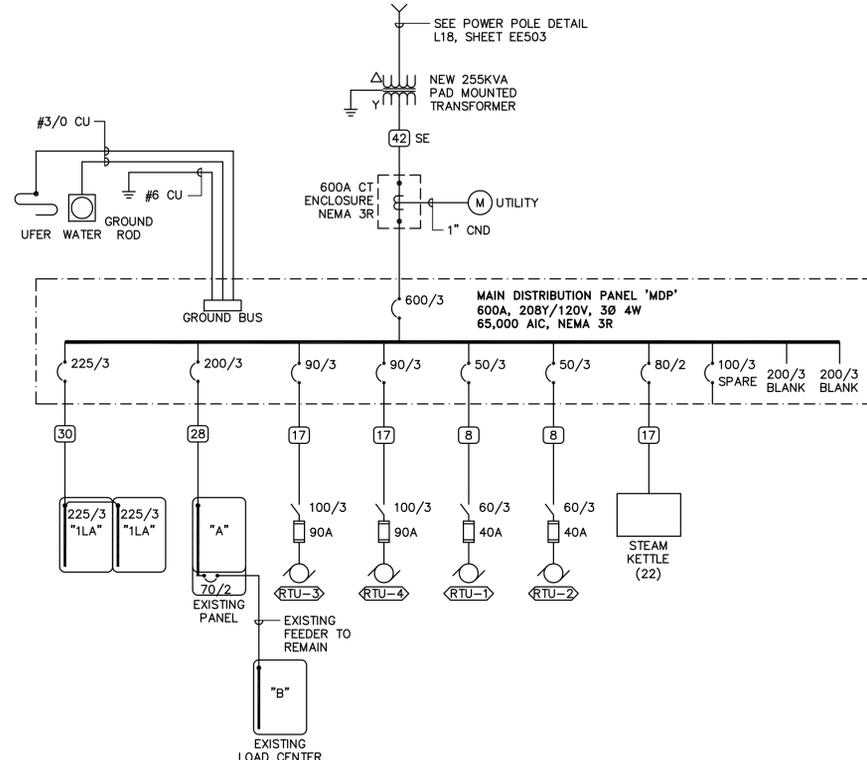
F11 TYPICAL CONDUIT RACK DETAIL NTS



GENERAL 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.

L18 TYPICAL ROUGH-IN REQUIREMENTS DETAIL NTS



L11 ONE-LINE DIAGRAM NTS



SHEET TITLE
Details & One-Line Diagram

REVISIONS	DATE	BY	DESCRIPTION

DRAWN BY: PSS CHECKED BY: DLA
PROJECT NO: 06296480 DRAWING NO: EE502
DATE: AUG 22, 2007

GENERAL SHEET NOTES

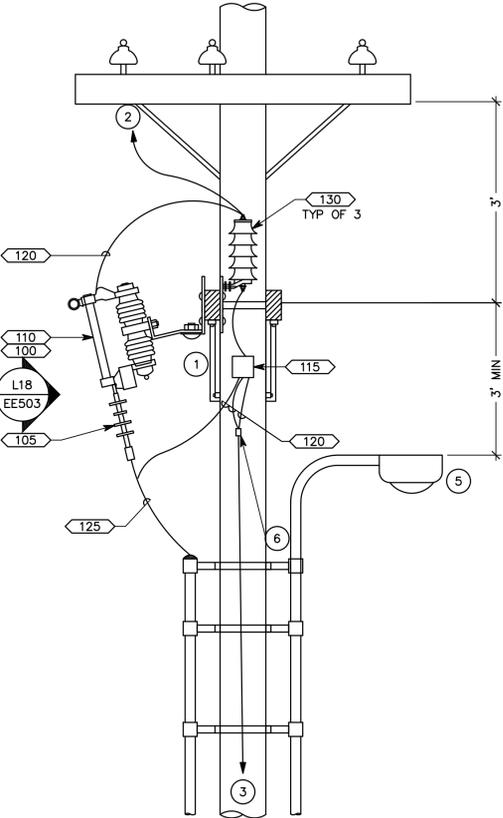
1. PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.
2. REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.
3. ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO SPECIFICATIONS SECTION 16071 FOR REQUIREMENTS.

- NOTES**
1. PROVIDE ALL HARDWARE NECESSARY TO INSTALL NEW EQUIPMENT.
 2. INSTALLATION OF NEW EQUIPMENT WILL REQUIRE WORKING NEAR ENERGIZED LINES OR COORDINATING A POWER OUTAGE WITH CAMP WILLIAMS.
- DETAIL NOTES**
1. PROVIDE NEW V-BRACE AND CROSS ARM TO MATCH EXISTING.
 2. TO HOT LINE CLAMP. TYPICAL OF THREE.
 3. TO 3/4"x10' GROUND ROD AT BASE OF POLE. SECURE GROUND CONDUCTOR TO POLE WITH "U" NAILS.
 4. TO NEW OR EXISTING HOT LINE CLAMP FOR NEUTRAL.
 5. EXISTING STREET LIGHT TO REMAIN.
 6. HARDWARE FOR EXISTING NEUTRAL CONDUCTOR TO REMAIN.

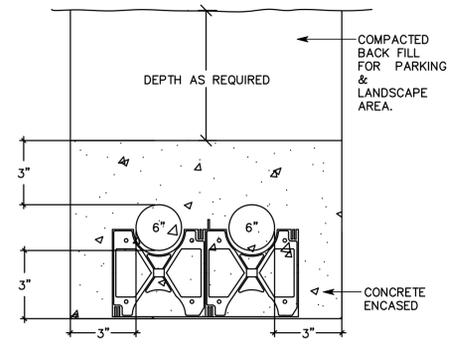
12.5 KV EQUIPMENT LIST

EQUIP NO	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NO.
100	3	SURGE ARRESTER / TYPE 'L' FUSED CUTOUT COMBINATION 15 KV, 110 KV BIL, 10,600 ASIC, EXPENDABLE CAP, FUSED CUTOUT WITH 100 A FUSE HOLDER, & ULTRASIL NORMAL-DUTY VARIGAP, 9 KV SURGE ARRESTER	COOPER	L4BAP1A002COA
105	3	15 KV SHIELDED POWER CABLE TERMINATION KIT TYPE JPT	JOSLYN	JPT15C1-S03
110	3	5 A FUSE LINK FOR 15 KV FUSED CUTOUT STANDARD SPEED TCC-123-6	S&C	64005
115	AS REQ'D	BRONZE PARALLEL CONNECTOR - SPLIT BOLT TYPE C, FOR #2 SOLID COPPER	ANDERSON	C-2
120	AS REQ'D	# 2 AWG, SOLID, HARD DRAWN COPPER CONDUCTOR	TBD	TBD
125	AS REQ'D	15 KV SHIELDED POWER CABLE, TYPE MV-105, #2 AWG, 133% INSULATION, EP-INSULATION W/PVC JACKET.	OKONITE	115-23-3111
130	EXIST	EXISTING SURGE ARRESTER TO BE RELOCATED.	N/A	N/A
135	4	HOT LINE CLAMP, SIZE DETERMINED BY CONTRACTOR TO MATCH SIZE AND TYPE OF EXISTING OH CONDUCTOR	TBD	TBD
140	3	600 V CURRENT TRANSFORMER, 400:5 RATIO, 10 KV BIL, ANSI METERING ACCURACY B0.1, WITH MOUNTING FEET	ABB	7524A75603
145	1	CURRENT TRANSFORMER METER BASE, AUTO BYPASS, NEMA 3R	MILBANK	UC7237
150	1	LEXAN COVER FOR METER BASE SOCKET OPENING	EKSTROM INDUSTRIES	16112
155	1	KWH/ DEMAND METER		(SEE SPEC SECTION 16320)

NOTES:
 TBD = TO BE DETERMINED BY CONTRACTOR BASED ON EQUIPMENT REQUIREMENTS AND AS PER THE SPECIFICATIONS.

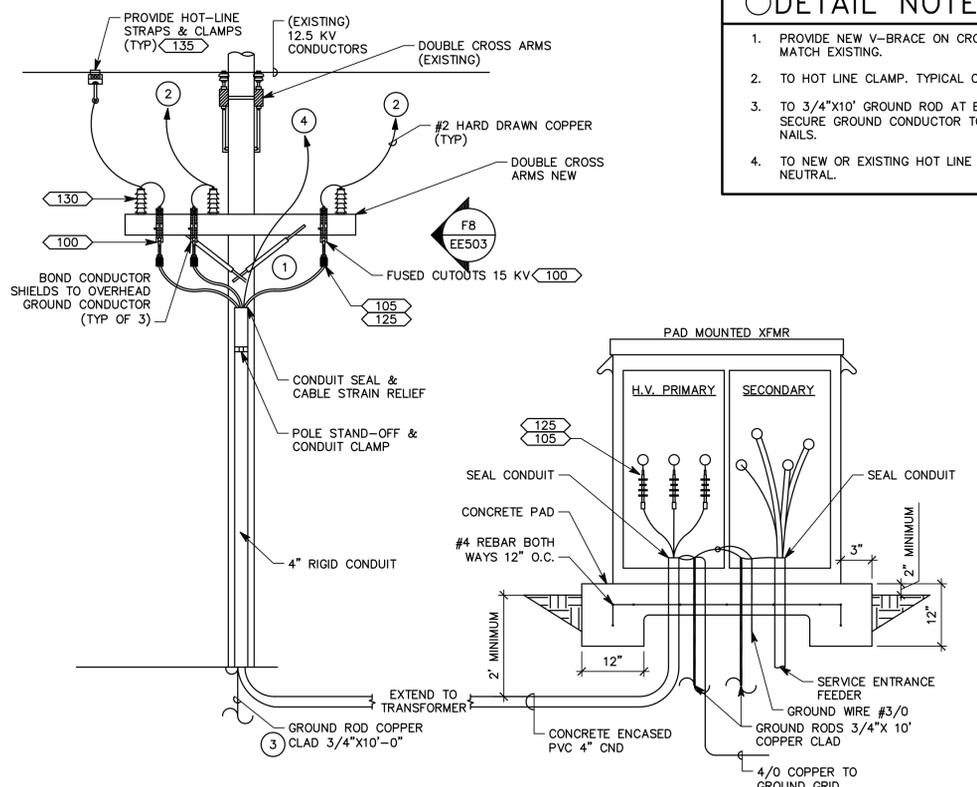


F8 POWER POLE SIDE VIEW

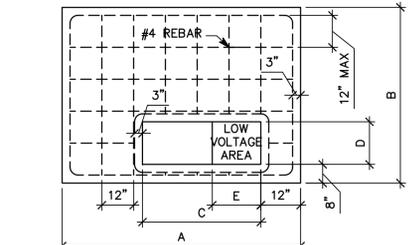


F18 DUCT BANK DETAIL

- DETAIL NOTES**
1. PROVIDE NEW V-BRACE ON CROSS ARM TO MATCH EXISTING.
 2. TO HOT LINE CLAMP. TYPICAL OF THREE.
 3. TO 3/4"x10' GROUND ROD AT BASE OF POLE. SECURE GROUND CONDUCTOR TO POLE WITH "U" NAILS.
 4. TO NEW OR EXISTING HOT LINE CLAMP FOR NEUTRAL.

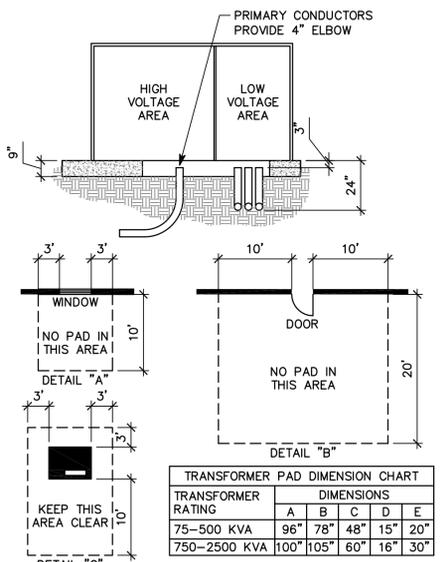


L18 POWER POLE DETAIL
 SCALE: N.T.S.



CONTRACTOR GENERAL NOTES

1. SITE PREPARATION. ALL SOIL BENEATH THE PAD SITE MUST BE COMPACTED AND LEVEL PRIOR TO SETTING OR POURING THE PAD TO PREVENT SETTLING.
2. CONCRETE. STEEL REINFORCEMENT SHALL BE #4 BARS, PLACED ACCORDING TO THE DRAWING. THE PAD MUST BE POURED AT LEAST SEVEN FULL DAYS PRIOR TO SETTING THE TRANSFORMER. THE FINISHED SURFACE MUST BE COMPLETELY FLAT AND LEVEL. SEE STANDARD 73 036 FOR CONCRETE SPECIFICATIONS.
3. PREFABRICATION. THE PAD MAY EITHER BE CONSTRUCTED ON THE SITE OR PREFABRICATED ACCORDING TO SPECIFICATIONS.
4. CONDUIT WINDOW LAYOUT. LOW VOLTAGE CONDUITS SHALL BE FORMED AS TIGHTLY AS POSSIBLE AGAINST THE RIGHT SIDE OF THE OPENING AND SHALL IN NO CASE EXTEND FURTHER THAN 20" FROM THE RIGHT SIDE OF THE CONDUIT WINDOW ON THE SMALL PAD OR 30" ON THE LARGE PAD. NO MORE THAN 8 CONDUITS WILL BE USED ON THE LOW VOLTAGE SIDE (NOT INCLUDING THE METERING CONDUIT). DO NOT PUT ANY CONCRETE IN OR UNDER THE CONDUIT WINDOW. USE SOIL TO SEPARATE CONDUITS. BELL ENDS ARE REQUIRED FOR ALL METAL CONDUIT, BUT NOT FOR PLASTIC CONDUIT.
5. CLEARANCES. THE FRONT OF THE PAD SHOULD ALWAYS FACE AWAY FROM ADJACENT STRUCTURES AND BE FREE OF OBSTRUCTIONS. AT LEAST 3 FEET MUST SEPARATE THE EDGES OF THE PAD FROM ANY ADJACENT STRUCTURE. THE EDGES OF THE PAD MUST BE AT LEAST 10 FEET FROM ANY COMBUSTIBLE STRUCTURE. IF AN ADJACENT STRUCTURE HAS ANY OVERHANG OR EAVE WITHIN 27 VERTICAL FEET OF THE TOP OF THE PAD, CLEARANCES MUST BE MEASURED FROM THE OUTSIDE OF THE OVERHANG. THE PAD MUST NOT BE PLACED IN AN AREA 10 FEET IN LINE WITH OR 3 FEET TO EITHER SIDE OF ANY WINDOW IN AN ADJACENT STRUCTURE (SEE DETAIL "A"). CLEARANCE FOR A DOOR MUST BE 20 FEET IN LINE WITH IT AND 10 FEET ON THE SIDES (SEE DETAIL "B"). PADS MUST NOT BE PLACED WITHIN 15 FEET OF ANY VALVE OR WITHIN 20 FEET OF ANY PLUMBING OR STORAGE FACILITY CONTAINING FLAMMABLE MATERIAL. NO WALLS, FENCES, OR ANY OTHER OBSTRUCTIONS WILL BE PLACED WITHIN 3 FEET OF THE SIDES OR BACK OF THE PAD, OR WITHIN 10 FEET OF THE FRONT OF THE PAD (SEE DETAIL "C"). THE AREA IN FRONT OF THE PAD MUST HAVE 10 FEET OF CLEAR, LEVEL WORKING AREA FOR MAINTENANCE OF THE TRANSFORMER. THE PAD MAY NOT BE PLACED IN LINE WITH AN AIR INTAKE WITHIN 32 VERTICAL FEET OF THE SURFACE PAD. ALSO VERTICALLY, IT MUST NOT BE PLACED WITHIN 12 FEET OF A DOOR OR WINDOW.
6. BARRIERS. IF THE TRANSFORMER PAD IS TO BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC, (PARKING LOTS, DRIVEWAYS, ETC) CONTACT CAMP WILLIAMS FOR PROTECTIVE BARRIER REQUIREMENTS.
7. IF THE TRANSFORMER WILL NOT COVER THE CABLE OPENINGS ON THESE STANDARD PADS, SEAL THE SIDES OF THE CABLE OPENING TO FIT THE TRANSFORMER USING SAKRETE OR COMPARABLE.



L9 TRANSFORMER PAD DETAIL
 SCALE: N.T.S.

TRANSFORMER PAD DIMENSION CHART

TRANSFORMER RATING	DIMENSIONS				
	A	B	C	D	E
75-500 KVA	96"	78"	48"	15"	20"
750-2500 KVA	100"	105"	60"	16"	30"

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE
Details

REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY: PSS CHECKED BY: DLA
 PROJECT NO: 06296480 DRAWING NO:
 DATE: AUG 22, 2007

EE503

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CONSULTANT INFORMATION

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



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Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

SHEET TITLE

Details

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DRAWN BY: PSS CHECKED BY: DLA

PROJECT NO: 06296480 DRAWING NO:

DATE: AUG 22, 2007

EE504

**TELECOMMUNICATIONS CABLING
- GENERAL NOTES**

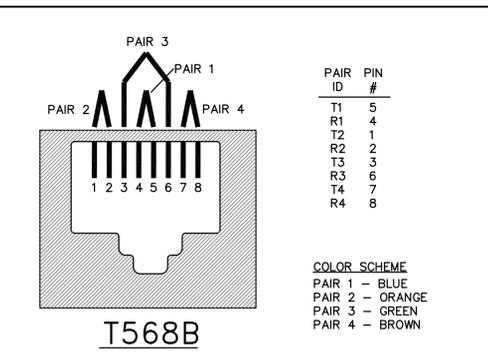
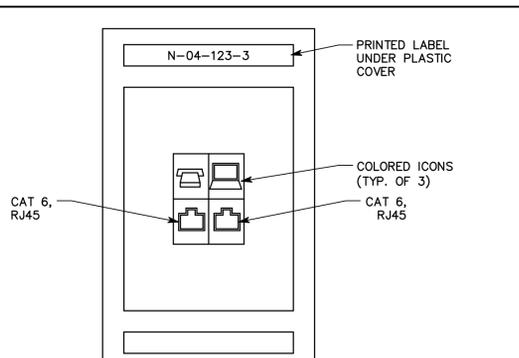
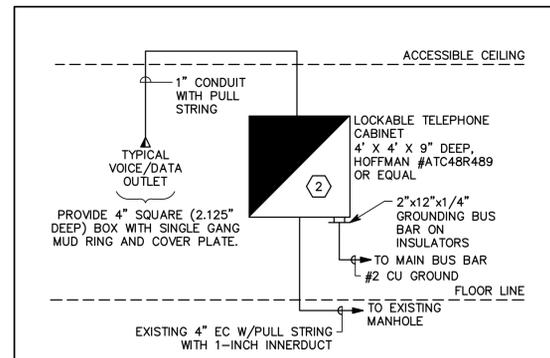
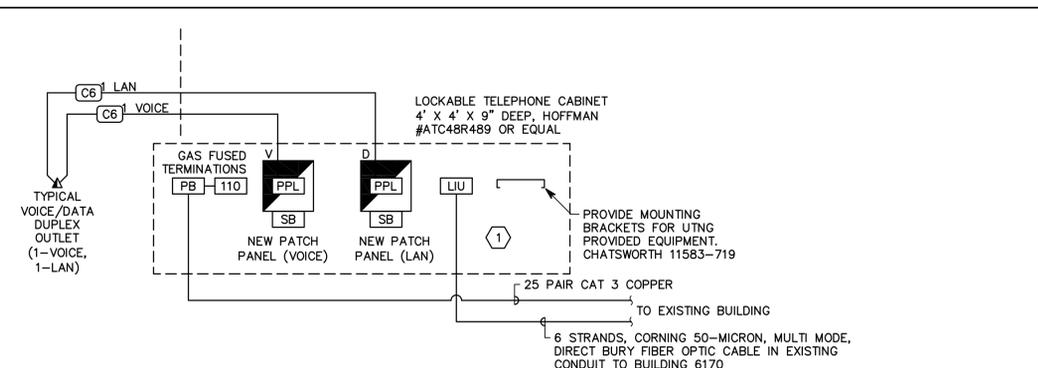
1. ALL WORK SHALL BE IN COMPLIANCE WITH UTNG STANDARD UT-G6-C.
2. ALL WORK SHALL BE COORDINATED WITH MIKE HANSEN 523-4844 (UTNG).

SHEET KEYNOTES

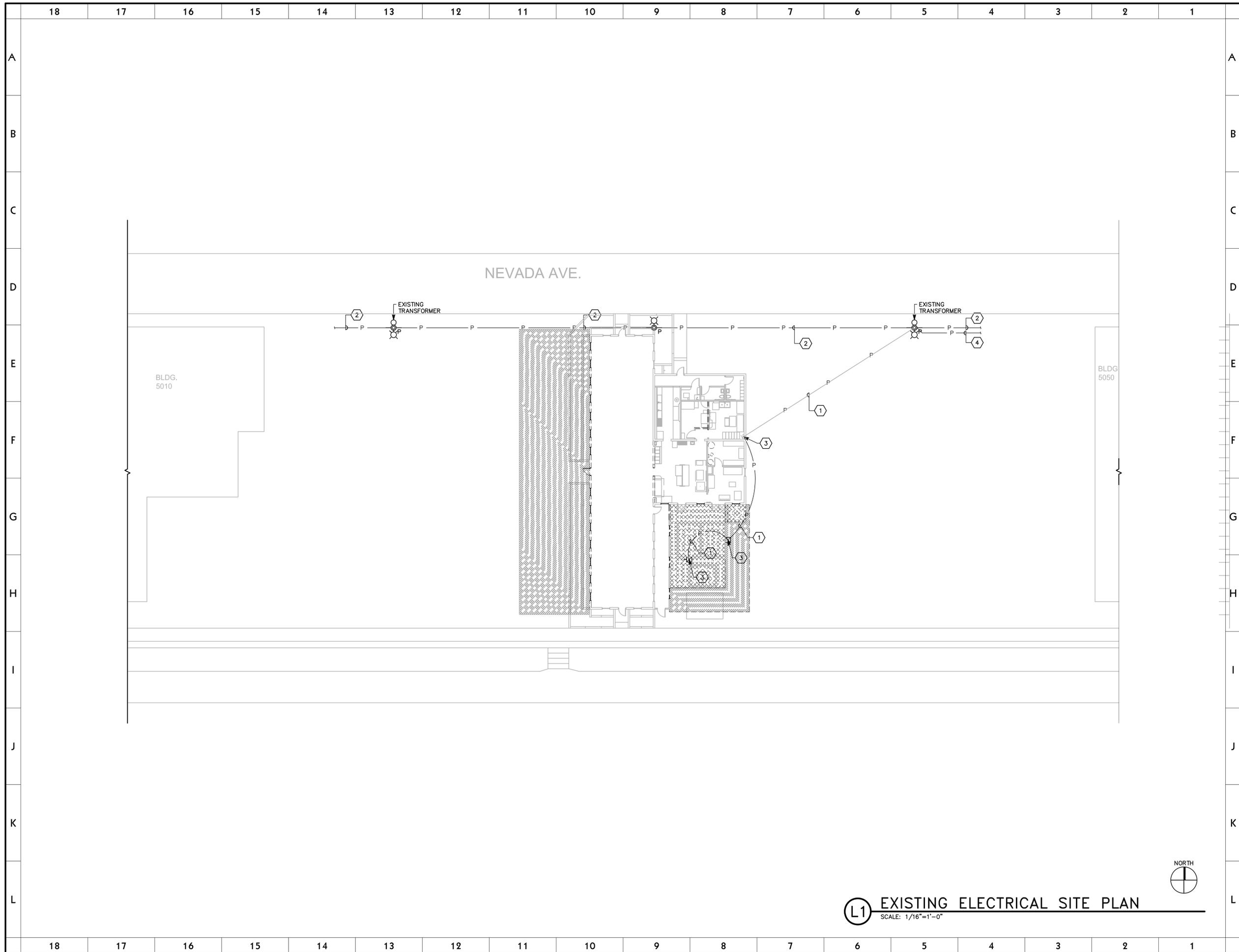
1. CONTRACTOR SHALL PROVIDE A ELEVATION LAYOUT DRAWING OF THE INSIDE OF THE COMMUNICATIONS CABINET INDICATING THE EQUIPMENT TO BE INSTALLED TO MIKE HANSEN (UTNG) FOR COORDINATION. COORDINATE REQUIREMENTS FOR UTNG PROVIDED EQUIPMENT AND INCLUDE THAT EQUIPMENT IN THE ELEVATION DRAWING.
2. PROVIDE AND MOUNT A 4' X 4' X 0.75" FIRE RESISTANT PLYWOOD BACKBOARD IN THE BACK OF THE CABINET. TRIM THE EDGES OF THE PLYWOOD TO FIT IN THE BOX. PAINT THE PLYWOOD AS DIRECTED BY UTNG.

TELEPHONE/DATA EQUIPMENT/CABLE LIST

SYMBOL	ITEM DESCRIPTION	MANUFACTURERS
X [C6] VOICE	VOICE CABLING, CATEGORY 6	SIEMON CAT 6 BLUE #9C6R4-E3-06-RBA ('X' INDICATES QUANTITY)
X [C6] DATA	DATA CABLING, CATEGORY 6	SIEMON CAT 6 YELLOW #9C6R4-E3-05-RBA ('X' INDICATES QUANTITY)
[PPL]	PATCH PANEL	SIEMON HD-689-D
[V]	BLUE METAL BACKBOARD (VOICE)	M183-B1 (VAR)
[D]	YELLOW METAL BACKBOARD (DATA)	M183-B5 (VAR)
[SB]	FULL SPOOL BOARDS	M187-B1 (VAR)
[W]	WORK STATION OUTLET (1-LAN, 1-VOICE)	SIEMON CT-C6-C6-02 (ANGLED JACK) SIEMON CT2-FP-02 (FACEPLATE)
[PB]	PROTECTION BLOCKS	MARCONI R66P25QC
[LIU]	RACK MOUNTED LIU	SIEMON RACK MOUNT LIU FCP2-RACK



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 175 South Main Street, Suite 300
 Salt Lake City, Utah 84111
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SHEET KEYNOTES

1. EXISTING OVERHEAD SECONDARY FEEDER CONDUCTORS TO BE REMOVED.
2. EXISTING OVERHEAD PRIMARY LINE TO REMAIN.
3. EXISTING WEATHER HEAD TO BE REMOVED.
4. EXISTING OVERHEAD SECONDARY LINE TO REMAIN.

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE			
Existing Electrical Site Plan			
REVISIONS	DATE	BY	DESCRIPTION
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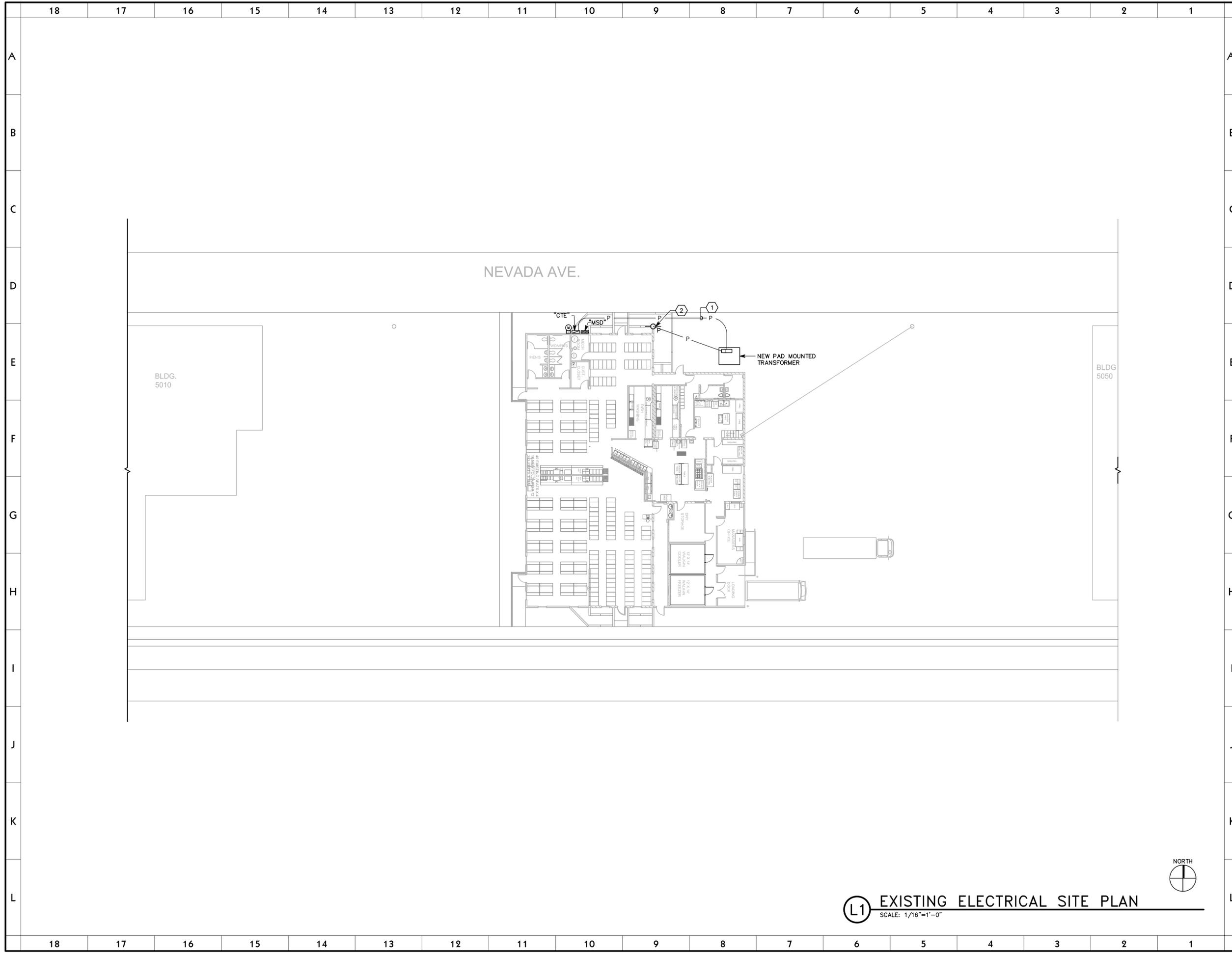
DRAWN BY	PSS	CHECKED BY	DLA
PROJECT NO.	06296480	DRAWING NO.	ES101
DATE	AUG 22, 2007		

L1 EXISTING ELECTRICAL SITE PLAN
 SCALE: 1/16"=1'-0"



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L1 EXISTING ELECTRICAL SITE PLAN
SCALE: 1/16"=1'-0"

Harris & Associates
265 East 100 South Suite 350
Salt Lake City, Utah 84111-1604
Ph (801) 521-8564 Fax (801) 355-2938

CONSULTANT INFORMATION
175 South Main Street, Suite 300
Salt Lake City, Utah 84111
801-328-5151
800-678-7077
FAX 801-328-5155
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SPECTRUM ENGINEERS

SHEET KEYNOTES

1. PROVIDE NEW UNDERGROUND POWER FEEDERS TO BUILDING.
2. EXTEND CONDUIT AND CONDUCTORS UP EXISTING POLE TO EXISTING TRANSFORMER LOCATION. FIELD VERIFY.

Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

Electrical Site Plan

REVISIONS	DATE	BY	DESCRIPTION
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PROJECT NO: 06296480 DRAWING NO: **ES102**

DATE: AUG 22, 2007

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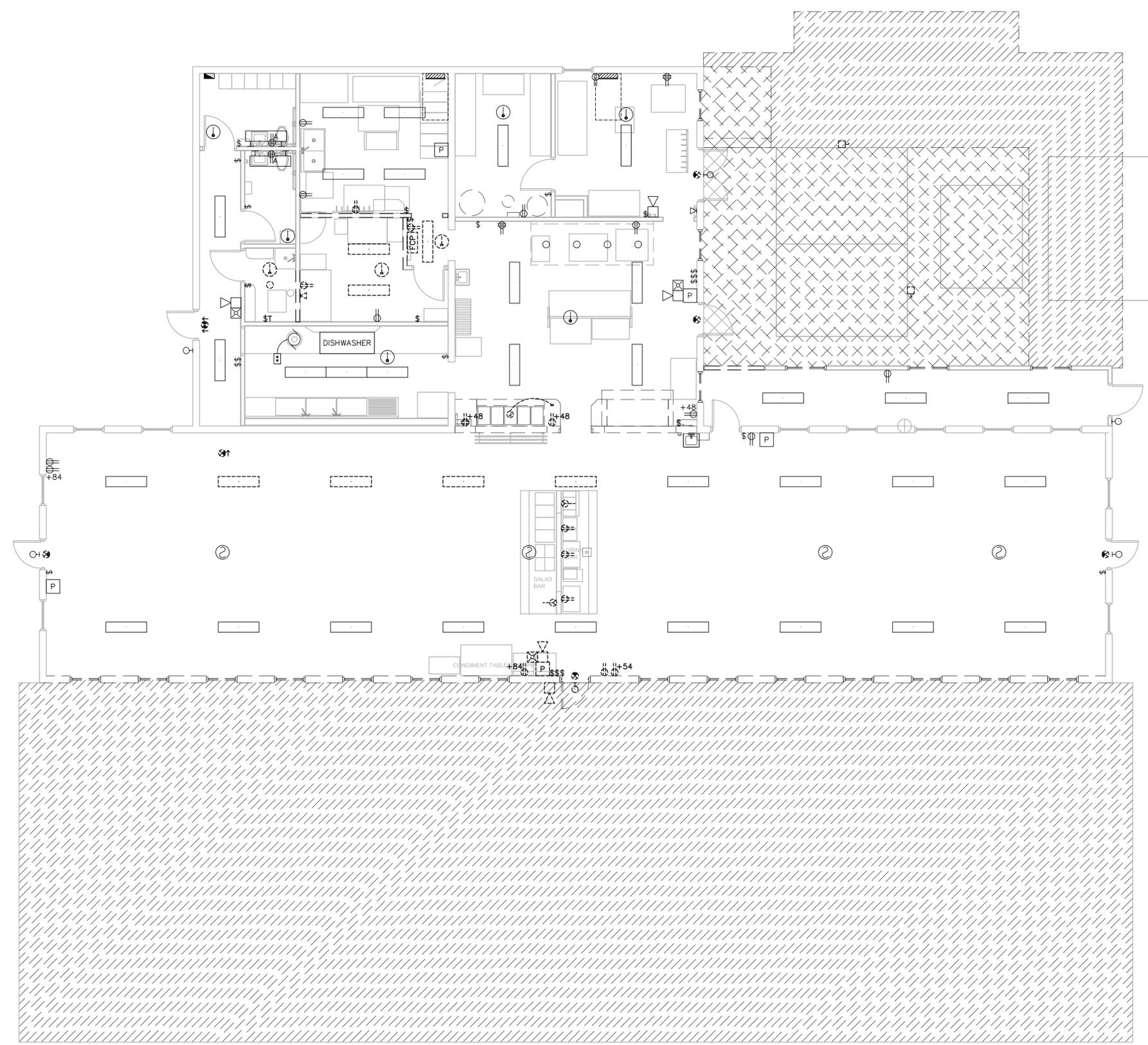
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 Salt Lake City, Utah 84111
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 800-678-7077
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SHEET KEYNOTES

1. CONNECT TO EXISTING KITCHEN LIGHTING CIRCUIT.
2. CONNECT TO EXISTING LIGHTING CIRCUIT SERVING THIS AREA.
3. CONNECT THROUGH TIMECLOCK AND PHOTOCELL. PHOTOCELL ENABLE/TIMECLOCK OFF.



L1 DEMOLITION PLAN
 SCALE: 3/16"=1'-0"

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE			
Demolition Plan			
REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY	PSS	CHECKED BY	DLA
PROJECT NO.	06296480	DRAWING NO.	ED101
DATE	AUG 22, 2007		

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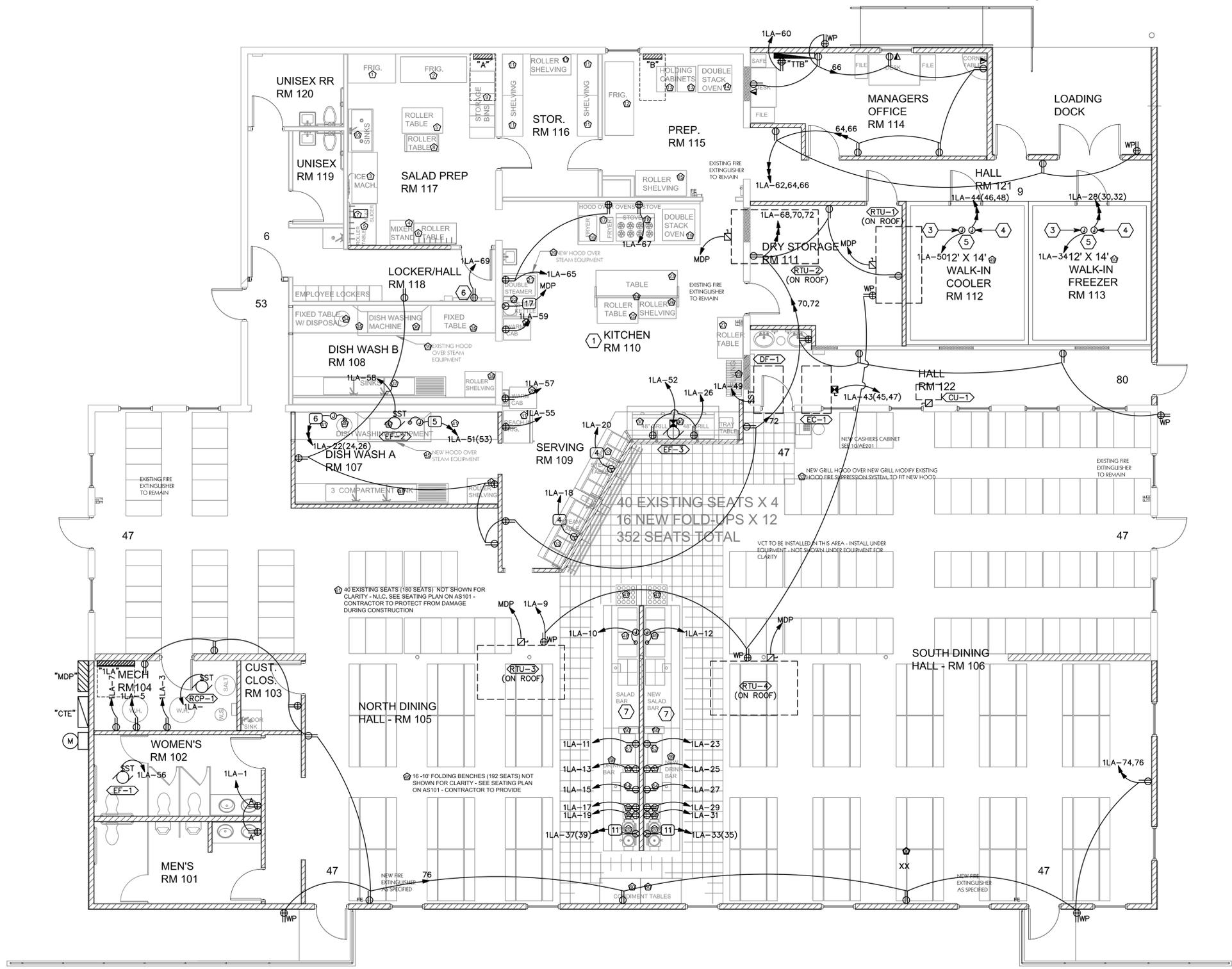
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GENERAL SHEET NOTES

1. ALL DEVICES SHOWN SHALL BE NEW. ALL EXISTING DEVICES SHALL REMAIN UNLESS OTHERWISE NOTED ON THIS DRAWINGS OR ON THE DEMOLITION DRAWINGS.

SHEET KEYNOTES

1. ALL EXISTING NON-GFI RECEPTACLES IN THIS ROOM SHALL BE REPLACED WITH GFI DEVICES TO COMPLY WITH NEC 210.8(B).
2. PROVIDE ELECTRICAL CONNECTIONS TO HOOD FOR INTEGRAL LIGHTS, RECEPTACLES AND CONTROLS AS REQUIRED BY HOOD MANUFACTURER'S PUBLISHED DATA. COORDINATE WITH HOOD INSTALLER.
3. PROVIDE CONNECTION TO LIGHTING AND RECEPTACLE OUTLETS INTEGRAL TO WALK-IN EQUIPMENT.
4. PROVIDE CONNECTION TO COOLING COMPRESSORS, ETC. PER WALK-IN EQUIPMENT MANUFACTURER'S PUBLISHED DATA.
5. COORDINATE REQUIREMENTS FOR ALL CONNECTIONS TO WALK-IN EQUIPMENT WITH WALK-IN EQUIPMENT INSTALLER.
6. PROVIDE OUTLET FOR RELOCATED TIME CLOCK COORDINATE MOUNTING HEIGHT WITH OWNER.
7. COORDINATE DEVICE LOCATIONS AND EXACT REQUIREMENT WITH KITCHEN EQUIPMENT INSTALLER.
8. PROVIDE CONNECTION TO NEW DISHWASHING EQUIPMENT. VERIFY REQUIREMENTS.



L1 POWER PLAN
 SCALE: 3/16"=1'-0"

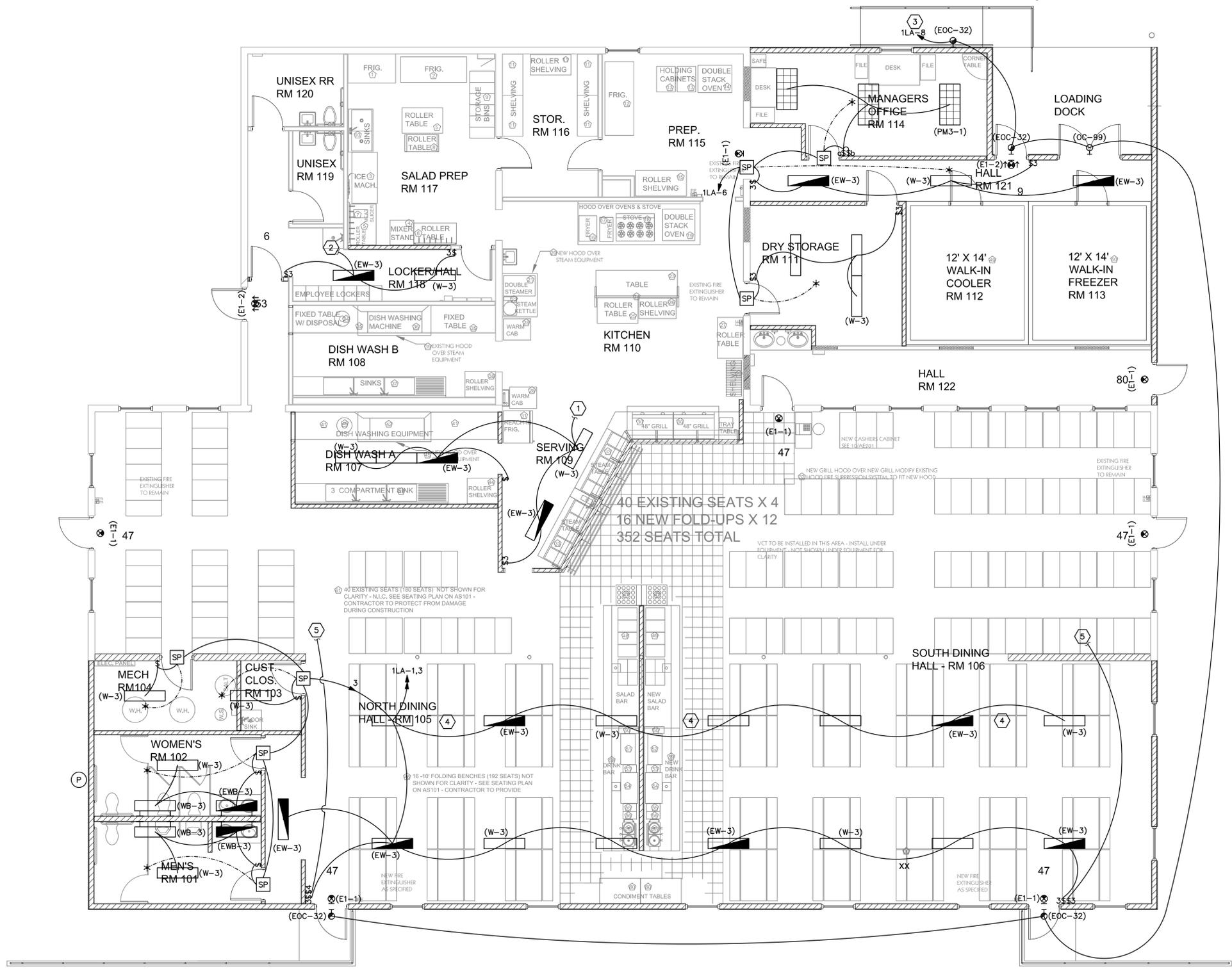
Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE			
Power Plan			
REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY: PSS		CHECKED BY: DLA	
PROJECT NO: 06296480		DRAWING NO:	
DATE: AUG 22, 2007		EP101	

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SHEET KEYNOTES

1. CONNECT TO EXISTING KITCHEN LIGHTING CIRCUIT.
2. CONNECT TO EXISTING LIGHTING CIRCUIT SERVING THIS AREA.
3. CONNECT THROUGH TIMECLOCK AND PHOTOCELL. PHOTOCELL ENABLE/TIMECLOCK OFF.
4. ALIGN NEW LIGHTS WITH EXISTING LIGHTS LAYOUT IN EXISTING EATING AREA TYPICAL.
5. CONNECT TO EXISTING DINING ROOM LIGHTS.



L1 LIGHTING PLAN
 SCALE: 3/16"=1'-0"

Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE			
Lighting Plan			
REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY	PSS	CHECKED BY	DLA
PROJECT NO.	06296480	DRAWING NO.	
DATE	AUG 22, 2007		

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18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

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									
SYMBOL MARK	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) CFP841 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 LPX70DGG CXL-1-GW-EM SLN1GW LTN1GW			
E1-2	DUAL FACE:	LED	2W	120/277V	DUAL-LITE EELP LITHONIA SURE-LITES DAY-BRITE CHLORIDE LIGHTOLIER MCPHILBEN	LXUGWE XE 2 GW EM LQM S W 3 G 120/277 ELN LPX70DGG CXL-3-GW-EM SLN2GW LTN2GW CXXL-3-GW			
OC	WALL PACK: ADJUSTABLE CUT OFF; FULL PERIMETER GASKETING; WET LOCATION; STAINLESS STEEL HINGES AND LATCHES; PROJECTING LENS; HPF BALLAST; SEE ELEVATION FOR MOUNTING HEIGHT, COLOR AS SPECIFIED BY ARCHITECT.								
EOC-32	CF42, RECESSED J BOX. MEDIUM THROW, SQUARE, DECORATIVE, REMOTE EMERGENCY BATTERY PACK.	CF42 REB35	50W	277/120V	MCPHILBEN LSI LITHONIA LUMARK LSI	101MT-42TRF-CBA-DT-EM GBWS-FTM-42CFL-F-120/277-XX-NO-EM WST 42TRT MD MVOLT-EM PLUP-T-42-MT-XX-EM GBWS FTM 42CFL F UE XXX W/LAMP-EM			
OC-99			100PSMH	277/120V					
PM3	PARABOLIC LOUVER FIXTURES WITH 3" LOUVERS IN PLASTIC PROTECTORS AND FULL DEPTH REFLECTOR; SIZE AS NOTED; PROGRAM START ELECTRONIC BALLASTS PER SPECS; T8 LAMPS; ONE BALLAST PER FIXTURE UNLESS NOTED FOR SWITCHING; HINGED AND LATCHED DOOR; LOW IRIDESCENT LOUVER FINISH, VERTICAL GRAIN DIE STAMPED LOUVERS; TWO FORMED BALLAST COVERS; MAX 1300 CD/M2 ABOVE 45 DEGREES.								
PM3-1	2X4, 18 CELL SURFACE MOUNT; SEMI-SPECULAR SILVER, 3 LAMP.	3-F32T8 REB35	90W	277/120V	LITHONIA DAYBRITE METALUX COLUMBIA LSI LIGHTOLIER	2PM3X-332-18LD-MVOLT-1/3TUBRHP 2S3P332-36SL-UNV-1/3EB-SPEC 2EP3MX-332S36I-UNV-PROGRAM START P224332SM-LD36S-3EB8-120/277 PROG SN2P18 332 SSO10PS UE DPB2S18LP332-U-03P			
W	LOW PROFILE WRAPAROUND: SURFACE MOUNTED SUITABLE FOR MOUNTING ON LOW DENSITY CEILINGS WRAPAROUND ACRYLIC PRISMATIC DIFFUSER; WHITE ENAMEL ENDPLATES; MINIMUM CU OF 70 @ 80/50/20 AND RCR=1; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.								
W-3	NARROW BODY WRAPAROUND; 2-LAMP, APPROX; 3" X 10" X 48".	2-F32T8 REB35	65W	277/120V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI COLUMBIA	LB232-MVOLT-TUBPHP CAN232-UNV-1/2-EB-SPEC WS-232A-UNV-PROGRAM START WA232-U-SOP PR 232 SSO10PRS UE WC4-232-EBPS120/277			
W-5	WIDE BODY WRAPAROUND; 3-LAMP, APPROX; 3" X 16" X 48".	3-F32T8 REB35	95W	277/120V	LITHONIA DAYBRITE METALUX LIGHTOLIER LSI COLUMBIA	LB332-1/3MVOLT-TUBPHP CAW332-UNV-1/3-EB-SPEC WSA-332A-UNV-PROGRAM START WB332-U-03P PR 332 SSO10PRS UE WCW4-332-3EBPS120/277			
WB	WALL MOUNTED FLUORESCENT LOCATED ABOVE WALL ELEMENT (MIRROR/WHITEBOARD, ETC.): AS INDICATED ON DRAWINGS; WITH ACRYLIC INJECTION MOLDED; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE, UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS.								
WB-3	2-LAMP, WALL MOUNT 48", STEEL ENCLOSURE, DOWNLIGHT ONLY; ACRYLIC INJECTION MOLDED PRISMATIC DIFFUSER.	2-F32T8 REB35	65W	277/120V	DAYBRITE LIGHTOLIER METALUX L.A.L. COLUMBIA LITHONIA LSI	CD232W-UNV-1/2-EB-SPEC CWB232-WB-U-SOP BI-232-UNV-PROGRAM START BSQ100-2-4R-INJ-WHT-T8EB-120/277-UPS WAL4-232-EBPS120/277 WP 232 DO MVOLT-TUBPHP WB 232 SSO10PRS UE			

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Utah National Guard
BLDG. 503 MESS HALL REMODEL
CAMP W.G. WILLIAMS
UTAH

SHEET TITLE
Lighting Fixture Schedule

REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY: **PSS** CHECKED BY: **DLA**

PROJECT NO: **06296480** DRAWING NO: **EL601**

DATE: **AUG 22, 2007**

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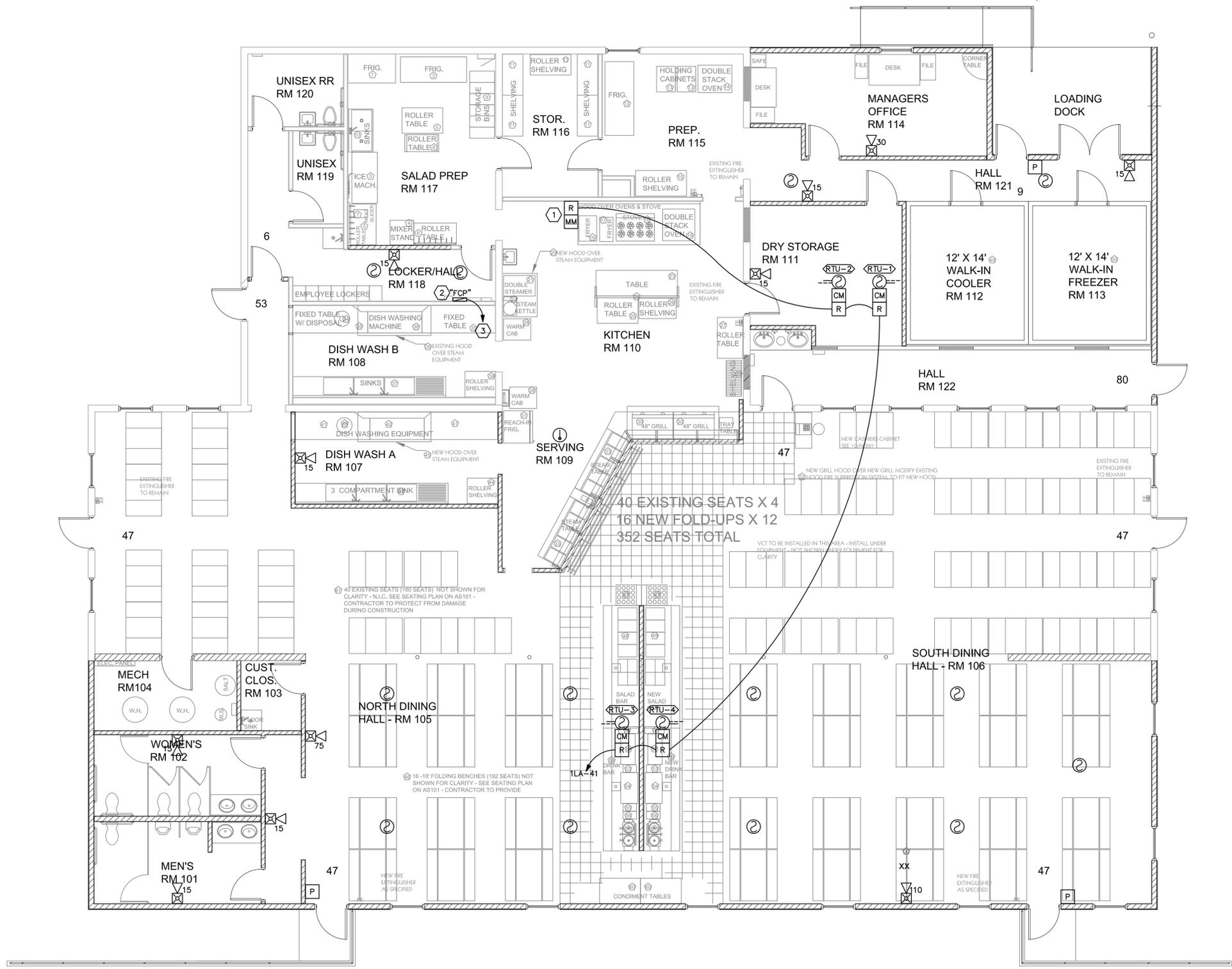


GENERAL SHEET NOTES

1. CONNECT ALL NEW DEVICES/EQUIPMENT TO EXISTING FIRE ALARM PANEL. PROVIDE NAC EXTENDER PANELS AS REQUIRED.
2. ALL WIRING, CONDUCTORS, AND EQUIPMENT SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM EQUIPMENT. FIELD VERIFY ALL CONDITIONS PRIOR TO BID.
3. ALL FIRE ALARM CIRCUITS SHALL BE SINGLE CONDUCTORS IN RACEWAY.

SHEET KEYNOTES

1. PROVIDE MONITOR MODULE AND RELAY FOR MONITORING THE HOOD FIRE EXTINGUISHING SYSTEM.
2. RELOCATED FIRE ALARM CONTROL PANEL. EXTEND ALL EXISTING CIRCUITS AS REQUIRED TO NEW LOCATION.
3. EXTEND EXISTING POWER FOR FCP TO NEW LOCATION. FIELD VERIFY REQUIREMENTS.



L1 FIRE ALARM PLAN
 SCALE: 3/16"=1'-0"




Utah National Guard
 BLDG. 503 MESS HALL REMODEL
 CAMP W.G. WILLIAMS
 UTAH

SHEET TITLE			
Fire Alarm Plan			
REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY	PSS	CHECKED BY	DLA
PROJECT NO.	06296480	DRAWING NO.	FA101
DATE	AUG 22, 2007		

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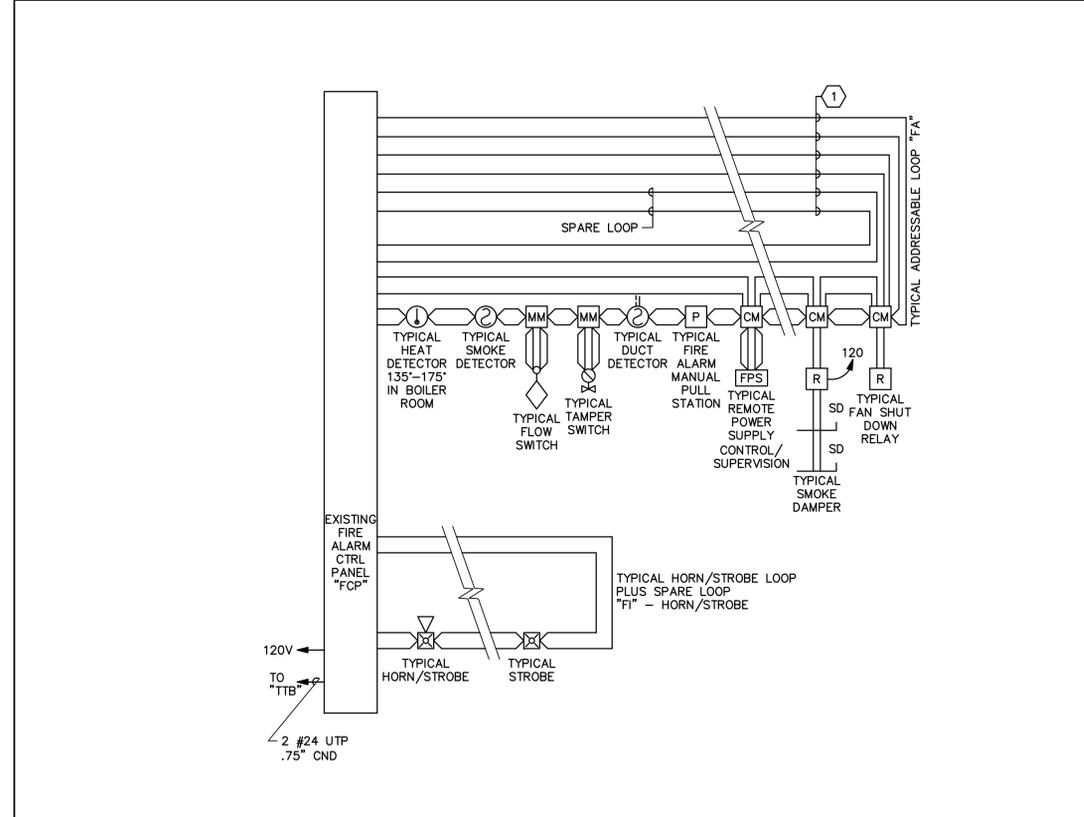
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GENERAL SHEET NOTES

- PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
- PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
- PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE). POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.
- FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
- HEAT DETECTORS WHEN INSTALLED IN ELEVATOR SHAFTS OR MECHANICAL ROOMS FOR ELEVATOR SHUT DOWN SHALL HAVE HEAT DETECTOR WITH LOWER RESPONSE TIME INDEX THAN SPRINKLER HEAD.
- PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.
- BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
- VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
- RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
- PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.
- PROVIDE DUCT DETECTOR AT EACH FLOOR, PRIOR TO CONNECTION TO A COMMON RETURN AND PRIOR TO RECIRCULATING OR FRESH AIR INLET IN AIR RETURN SYSTEMS OVER 15,000 CFM CAPACITY AND SERVING MORE THAN ONE STORY.
- PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
- PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
- LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
- PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
- INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
- ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
- HORN/STROBE BASED ON 120 MILLIAMPS, DOOR HOLDERS BASED ON 70 MILLIAMPS.
- INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

SHEET KEYNOTES

- EXTEND ALL EXISTING WIRING AND CONDUIT FOR EXISTING DEVICES TO NEW FIRE ALARM CONTROL PANEL LOCATION.



12 ADDRESSABLE FIRE ALARM RISER
NTS

WIRING SCHEDULE

FUNCTION	< 500'	< 1000'	1000'-3000'	> 3000'
ADDRESSABLE LOOP	#18 TSP	#18 TSP	#16 TSP	#14 TSP
POWER LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
SPARE LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
STROBE HORNS	#14 THWN	#14 THWN	#12 THWN	#10 THWN
MAGNETIC DOOR HOLDER SPEAKERS	#12 THWN	#10 THWN		
	#16 TSP	#16 TSP	#14 TSP	#14 TSP

NOTIFICATION SCHEDULE

SYMBOL	STROBE SIZE	COVERAGE	AVERAGE CURRENT	MAXIMUM PER CIRCUIT ALONE
☒◁15	15 CD	20'x20'	.085A	17
☒◁30	30 CD	30'x30'	.135A	11
☒◁75	75 CD	40'x40'	.200A	7
☒◁110	110 CD	50'x50'	.225A	6

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BLDG. 503 MESS HALL REMODEL
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SHEET TITLE
Fire Alarm Riser

REVISIONS	DATE	BY	DESCRIPTION
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DRAWN BY: PSS CHECKED BY: DLA

PROJECT NO: 06296480 DRAWING NO: FA601

DATE: AUG 22, 2007

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