



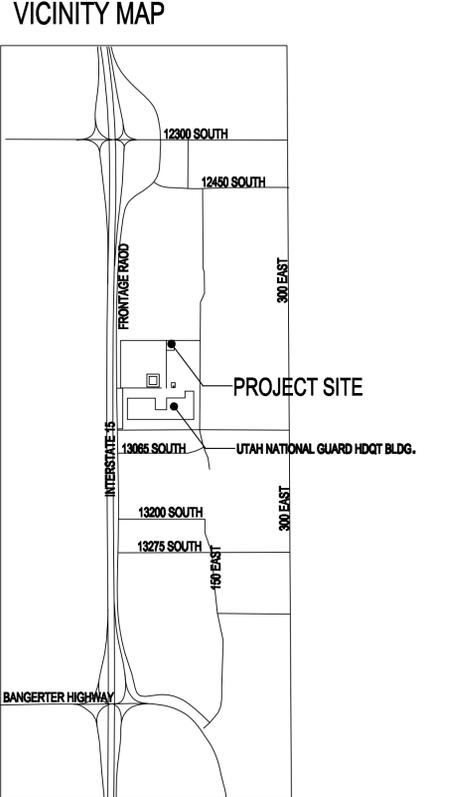
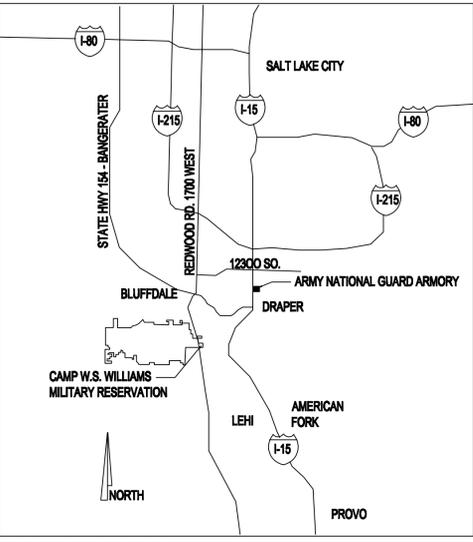
UTAH NATIONAL GUARD

NEW STORAGE BUILDING UTAH NATIONAL GUARD, DRAPER, UTAH

PROJECT No. 07328480

DATE: FEB 25, 2008

GENERAL CODE DATA			
Project			
UNG Draper Complex New Storage Building			
DFCM Project No. 07328480			
Phase: Construction Documents			
Utah Statewide Codes (with amendments)			
2006 International Building Code	2006 International Mechanical Code		
2006 International Plumbing Code	2005 National Electrical Code		
2006 International Energy Conservation Code	2006 International Fire Code		
1994 ADA Accessibility Guidelines	2006 International Fuel Gas Code		
Occupancy			
Occupancy Classification: (Furniture Storage)	S-1		
Mixed Occupancy:	No		
Incidental Uses:	None		
Accessory Uses:	None		
Area			
Public Way/Open Space	Width		
North	10		
East	>30		
South	>30		
West	>30		
Qualifying Building Frontage (F):	169		
Building Perimeter (P):	200		
F/P:	0.80		
Width (W):	30.00		
W/30:	1.00		
Frontage Increase (fi):	55.00		
Allowable Area	Multipliers	S-1	
Tabular Area (Aa)			17500
Frontage Increase (fi)	55.00		9625
Sprinkler Increase (Is)	0		0
Allowable Area (Aa)			27125
Actual Area			
Actual Area - Building			2400
Actual area less than allowable area - OK			
Height and Number of Stories			
Allowable Height		S-1	
Actual Height			55
Allowable No. of Stories			16
Actual No. of Stories			3
Type of Construction			
Type of Construction:			IIB
Fire-Resistance-Rated Construction			
Fire-Resistance Rating Requirements for Building Elements (Based on Type of Construction)			
Element	Hours	Test No.	
Structural Frame	0	n/a	
Exterior Bearing Walls	0	n/a	
Interior Bearing Walls	0	n/a	
Exterior Non-Bearing Walls and Partitions	0	n/a	
Interior Non-Bearing Walls and Partitions	0	n/a	
Floor Construction	0	n/a	
Roof Construction	0	n/a	
Fire-Resistance Rating Requirements for Exterior Walls (Based on Fire Separation Distance)			
Location/Fire Separation Distance	Wall (Hours)	Wall Test No.	Unprotected Openings* (Hours)
North/0	0	n/a	unlimited
East/0-30	0	n/a	unlimited
South/0-30	0	n/a	unlimited
West/0-30	0	n/a	unlimited
*Unlimited unprotected openings allowed [Ref. IBC Table 704.8 footnote i]			
Interior Finishes			
Wall and Ceiling Finish Requirements	Requirement	Provided	
Rooms and Enclosed Spaces:	Class C	n/a	
Fire Protection Systems			
Automatic Sprinkler System Required:	Requirement	Provided	
Standpipe System Required:	No	No	
Fire Alarm System Required:	No	No	
Means of Egress			
Occupant Load			
Occupant Load			5
Means of Egress	Requirement	Provided	
Building Exits	1	1	
Building Accessible Means of Egress	1	1	
Egress Width (in.): 5 x 0.20 = 1.00	1	33	
Maximum Common Path of Travel (ft) - S	100*	97	
Maximum Travel Distance Building with One Exit (ft) - S-1	200	97	
*Group S allowed 100 ft if less than 30 occupants [Ref. IBC 1014.3 ex 2]			
Accessibility			
Accessible Public Entrances	Requirement	Provided	
	60%	100%	
Seismic and Wind			
Seismic Design Category:		D	
Design Wind Speed/Exposure:		90/C	
Plumbing Systems			
Restroom facilities provided within 500 ft.			
Deferred Submittals			
Deferred Submittal	Section	Item	Est. Date
Sectional Doors	083326	Structural Analysis	06/08
Metal Building Systems	133419	Structural Design	06/08
Remarks			



LOCATION MAP

APPROVALS:

Prime Agency	_____	Date	_____
DFCM	_____	Date	_____
APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY			
APPROVALS:			
Prime Agency	_____	Date	_____
DFCM	_____	Date	_____

DFCM PLAN CHECK Division of Facilities Construction and Management

Phase	Accessibility	Program
Architectural	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Civil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Electrical	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Energy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HVAC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Landscape	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Plumbing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Specification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Structural	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CONSTRUCTION DOCUMENTS

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

Agency/ Institution	Date	Agency/ Institution	Date
Architectural	_____	Structural	_____
Mechanical	_____	Electrical	_____
ENERGY:	_____		_____
Specs	_____	Architectural	_____
Costs	_____	Mechanical	_____
Landscape Architecture	_____	Electrical	_____
Agency/ Institution	_____	Fire Marshal	_____
Agency/ Institution	_____		_____

REVIEW DOES NOT RELIEVE A/E OF DESIGN LIABILITY

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF FACILITIES & CONSTRUCTION AND MANAGEMENT
 4110 STATE OFFICE BUILDING
 SALT LAKE CITY, UTAH 84111
 801.538.3018

INDEX OF DRAWINGS

GENERAL	GI 001 COVER SHEET
ARCHITECTURAL	AS101 SITE PLAN AE101 FLOOR PLAN AE 201 ELEVATIONS
STRUCTURAL	S001 GENERAL STRUCTURAL NOTES S101 FOUNDATION PLAN S501 DETAILS
ELECTRICAL	EE001 SYMBOL LEGEND / SHEET INDEX EE102 POWER PLAN EE103 LIGHTING PLAN EE501 SCHEDULES

ARCHITECT:
HARRIS & ASSOCIATES
 265 EAST 100 SOUTH, SUITE 350
 SALT LAKE CITY, UTAH 84111
 PH: 801.521.8564
 FAX: 801.355.2938
 www.harris-assoc.com

STRUCTURAL ENGINEER:
FARLEY ENGINEERING
 4625 SOUTH 2300 EAST
 SALT LAKE CITY, UTAH 84117
 PH: 801.274.3151

ELECTRICAL ENGINEER:
SPECTRUM ENGINEERS
 175 SOUTH MAIN STREET, SUITE 300
 SALT LAKE CITY, UTAH 84111
 PH: 801.328.5151
 FAX: 801.328.5155
 www.spectrum-engineers.com

CONSULTANT INFORMATION

KEYED NOTES



SHEET TITLE
COVER SHEET

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: **JRA** CHECKED BY: **ERT**

PROJECT NO. **07328480** DRAWING NO. **GL001**

DATE **FEB 25, 2008**

CONSULTANT INFORMATION

KEYED NOTES

01

GENERAL NOTES

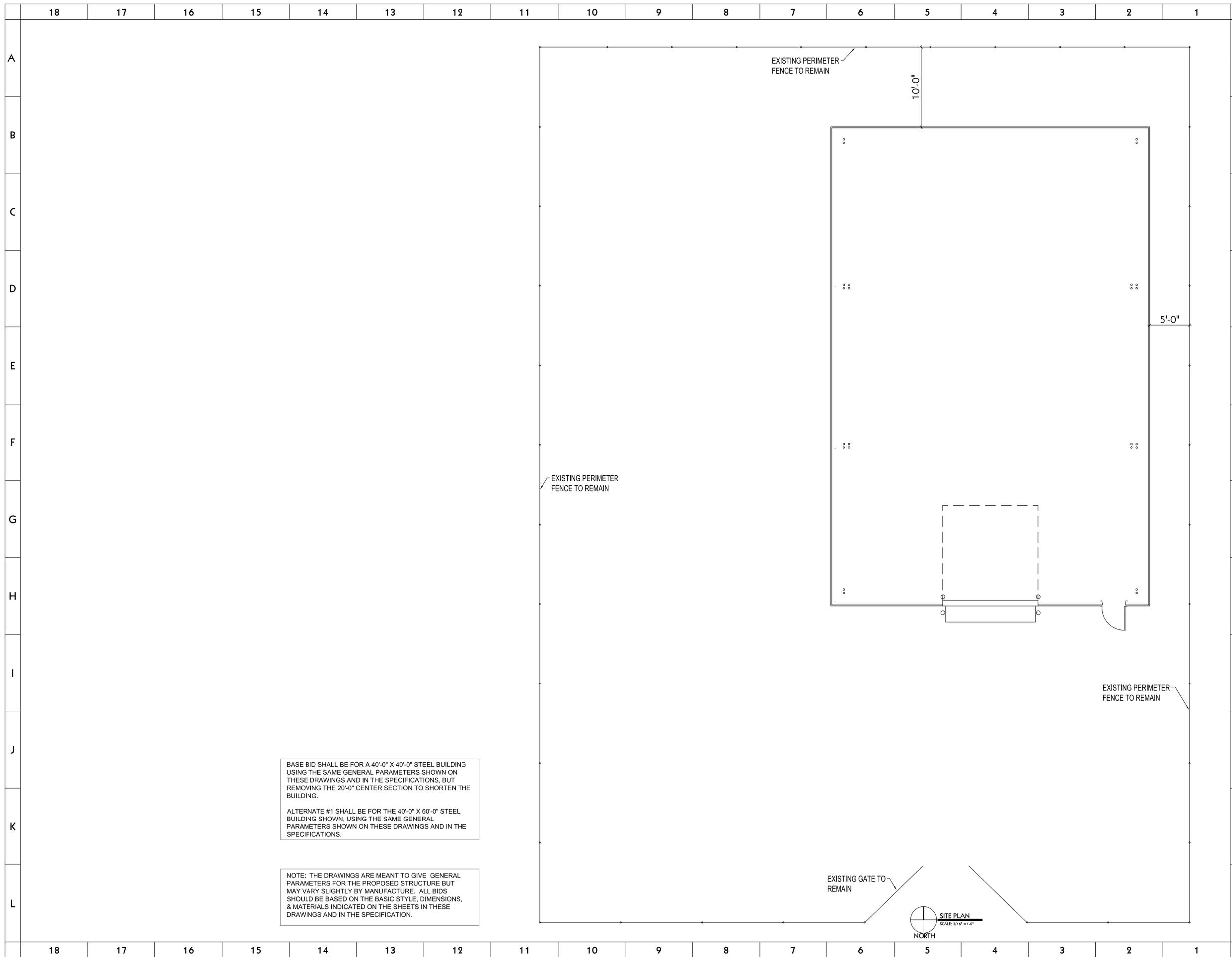
01



SHEET TITLE
SITE PLAN

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: **JRA** CHECKED BY: **ERT**
PROJECT NO: **06296480** DRAWING NO:
DATE: **FEB 25, 2008** **AS101**



BASE BID SHALL BE FOR A 40'-0" X 40'-0" STEEL BUILDING USING THE SAME GENERAL PARAMETERS SHOWN ON THESE DRAWINGS AND IN THE SPECIFICATIONS, BUT REMOVING THE 20'-0" CENTER SECTION TO SHORTEN THE BUILDING.

ALTERNATE #1 SHALL BE FOR THE 40'-0" X 60'-0" STEEL BUILDING SHOWN, USING THE SAME GENERAL PARAMETERS SHOWN ON THESE DRAWINGS AND IN THE SPECIFICATIONS.

NOTE: THE DRAWINGS ARE MEANT TO GIVE GENERAL PARAMETERS FOR THE PROPOSED STRUCTURE BUT MAY VARY SLIGHTLY BY MANUFACTURE. ALL BIDS SHOULD BE BASED ON THE BASIC STYLE, DIMENSIONS, & MATERIALS INDICATED ON THE SHEETS IN THESE DRAWINGS AND IN THE SPECIFICATION.

Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed.

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

CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES

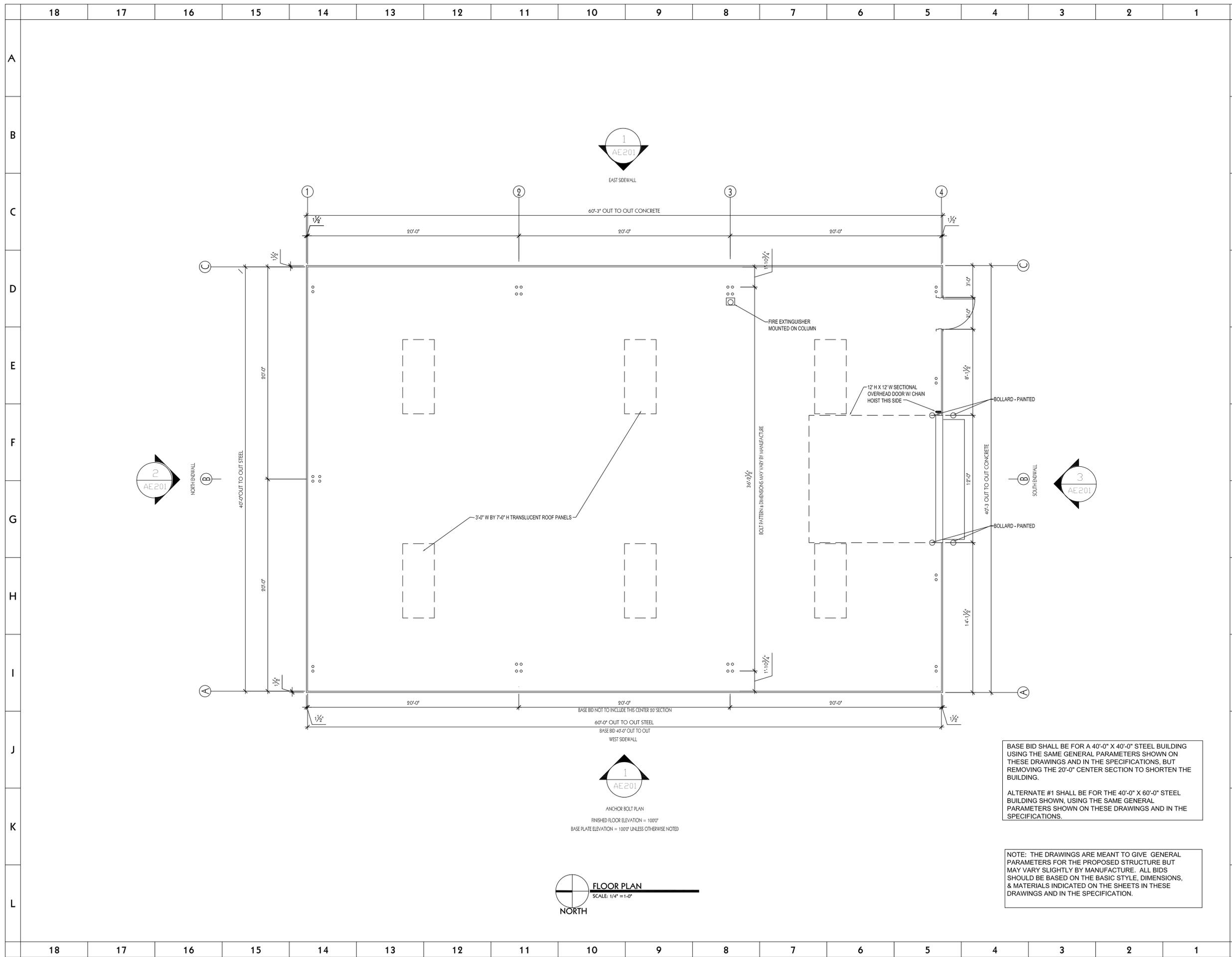


SHEET TITLE
FLOOR PLN

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: **JRA** CHECKED BY: **ERT**
PROJECT NO: **07328480** DRAWING NO:
DATE: **FEB 25, 2008**

AE101



BASE BID SHALL BE FOR A 40'-0" X 40'-0" STEEL BUILDING USING THE SAME GENERAL PARAMETERS SHOWN ON THESE DRAWINGS AND IN THE SPECIFICATIONS, BUT REMOVING THE 20'-0" CENTER SECTION TO SHORTEN THE BUILDING.

ALTERNATE #1 SHALL BE FOR THE 40'-0" X 60'-0" STEEL BUILDING SHOWN, USING THE SAME GENERAL PARAMETERS SHOWN ON THESE DRAWINGS AND IN THE SPECIFICATIONS.

NOTE: THE DRAWINGS ARE MEANT TO GIVE GENERAL PARAMETERS FOR THE PROPOSED STRUCTURE BUT MAY VARY SLIGHTLY BY MANUFACTURE. ALL BIDS SHOULD BE BASED ON THE BASIC STYLE, DIMENSIONS, & MATERIALS INDICATED ON THE SHEETS IN THESE DRAWINGS AND IN THE SPECIFICATION.



Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed.

CONSULTANT INFORMATION

KEYED NOTES

GENERAL NOTES

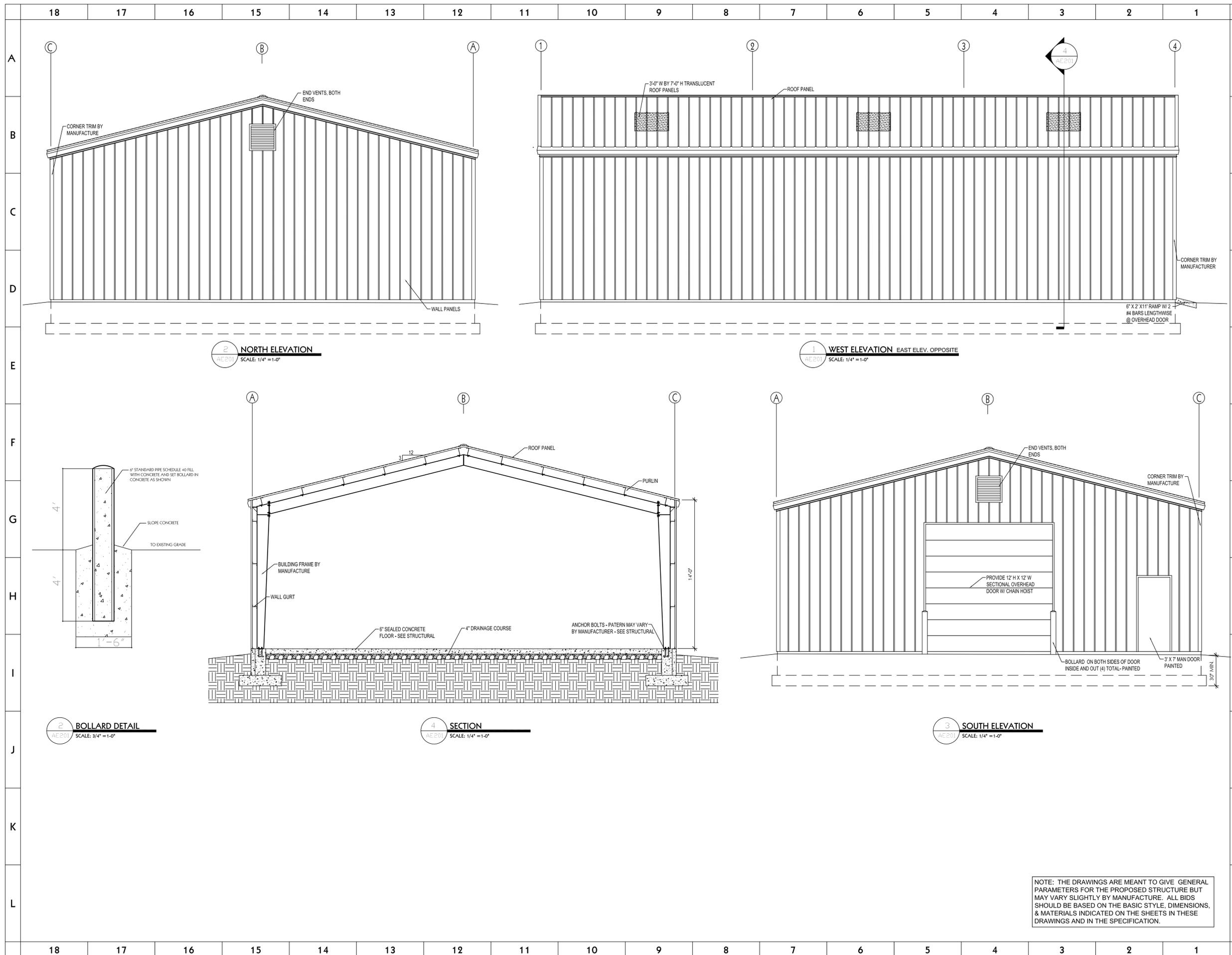


ELEVATION PLN

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: **JRA** CHECKED BY: **ERT**
PROJECT NO: **07328480** DRAWING NO: **AE201**
DATE: **FEB 25, 2008**

NOTE: THE DRAWINGS ARE MEANT TO GIVE GENERAL PARAMETERS FOR THE PROPOSED STRUCTURE BUT MAY VARY SLIGHTLY BY MANUFACTURE. ALL BIDS SHOULD BE BASED ON THE BASIC STYLE, DIMENSIONS, & MATERIALS INDICATED ON THE SHEETS IN THESE DRAWINGS AND IN THE SPECIFICATION.



Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed.

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

CONSULTANT INFORMATION
FARLEY ENGINEERING LLC
STRUCTURAL ENGINEERING CONSULTANTS
4625 South 2300 East, Suite 109 Holiday, Utah 84117
farleyeng@quest.net, Ph (801) 274-3151

KEYED NOTES

ENGINEER OF RECORD SHALL FURNISH 100% CONSTRUCTION DOCUMENTS UPON REVIEWING FINAL METAL BUILDING CALCULATIONS SUPPLIED BY THE GENERAL CONTRACTOR.

Utah National Guard
NEW STORAGE BUILDING
UTAH NATIONAL GUARD
DRAPER, UTAH

SHEET TITLE
GENERAL STRUCTURAL NOTES

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: JR / CDP
PROJECT NO.: 07064
DATE: 02/25/2008
CHECKED BY: DMF
DRAWING NO.: **5001**

GENERAL

- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.
- THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISH STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE METHODS, TECHNIQUES AND SEQUENCES OF PROCEDURES TO PERFORM THE WORK. THE SUPERVISION OF THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.
- ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
- LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADINGS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE 'DESIGN CRITERIA NOTES'. DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACING IS IN PLACE.
- ALL ASTM AND OTHER REFERENCES ARE PER THE LATEST EDITIONS OF THESE STANDARDS, UNLESS OTHERWISE NOTED. SHOP DRAWINGS AND OTHER ITEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR BEFORE SUBMITTAL. THE ENGINEER'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPTS AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSION, ETC.
- SUBMIT SHOP DRAWINGS IN THE FORM OF TWO SETS OF PRINTS AND ONE SET OF REPRODUCIBLE DRAWINGS TO BE USED AS SHOP DRAWINGS. AS A MINIMUM, SUBMIT THE FOLLOWING ITEMS FOR REVIEW:
 - CONCRETE MIX DESIGNS.
 - REINFORCING STEEL SHOP DRAWINGS.
 OTHER SUBMITTALS MAY BE REQUIRED PER THE 'SPECIAL INSPECTION' NOTES CONTAINED HEREIN.
- CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.

DESIGN CRITERIA NOTES

- THE INTENDED DESIGN STANDARDS AND/OR CRITERIA ARE AS FOLLOWS:
 - GENERAL CODE: 2006 INTERNATIONAL BUILDING CODE
 - CONCRETE: ACI 318-05
 - FOUNDATIONS: per IBC 2006
- REFER TO BUILDING MFR FOR DESIGN GRAVITY DEAD LOADS USED IN THE DESIGN OF THIS STRUCTURE.
- DESIGN GRAVITY LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 - ROOF - TYPICAL: 20 psf
 - ROOF - SNOW: 30 psf
- DESIGN LATERAL LOAD LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:
 - SEISMIC LOADS:
 - SHORT PERIOD MAPPED SPECTRAL ACCELERATION: $S_n + 1/3$
 - 5% DAMPED DESIGN SPECTRAL RESPONSE ACCELERATION: $S_{ds} + 2/3 + 1e/R$
 - SHORT PERIOD SITE COEFFICIENT: $F_a + 1/3$
 - SOIL SITE CLASS: D
 - BUILDING SEISMIC DESIGN CATEGORY: D
 - STRUCTURE DEAD LOADS: $V + C_{s1}W + 0.367W$
 - BASE SHEAR: $V + C_{s1}W + 0.367W$ (strength design)
 - WIND LOADS:
 - WIND VELOCITY (fastest mile wind speed): 90 mph
 - EXPOSURE: C
 - WIND IMPORTANCE FACTOR: 1.0

FOUNDATIONS

- ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 1500 psf. ALL FOOTINGS SHALL BEAR ON UNDISTURBED, FIRM NATURAL SOIL OR COMPACTED FILL. ALL FOUNDATION EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY PRIOR TO POURING FOUNDATION CONCRETE.
- TOP OF FOOTING ELEVATION SHALL BE AS SHOWN ON THE FOUNDATION PLAN. THESE ELEVATIONS ARE A MAXIMUM AND SHALL BE LOWERED AS REQUIRED TO OBTAIN THE REQUIRED DESIGN BEARING PRESSURE.
- THE BOTTOM OF ANY FOOTINGS EXPOSED TO THE FREEZE THAW CYCLE SHALL BE PLACED A MINIMUM OF 30 INCHES BELOW GRADE FOR FROST PROTECTION.
- NO UNBALANCED BACK FILLING SHALL BE DONE AGAINST FOUNDATION WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY BRACING OR BY PERMANENT CONSTRUCTION.
- PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.

CONCRETE

- CONCRETE SHALL HAVE THE FOLLOWING MATERIALS UNLESS NOTED OTHERWISE:
 - NORMAL WEIGHT AGGREGATE: ASTM C-33
 - REINFORCING STEEL: ASTM A-615,
 - GRADE 60: $F_y = 60 \text{ ksi}$
 - GRADE 40: $F_y = 40 \text{ ksi}$ (field bent dowels with spacings reduced by 1/3)
 - WELDED WIRE FABRIC (WUF): ASTM A-185
 - DEFORMED BARS ANCHORS (DBA): ASTM A-496
 - HEADED STUD ANCHORS (HAS): ASTM A-108
- ANCHOR BOLTS:
 - GRAVITY BOLTS: ASTM A-307
 - HEAVY HEX NUTS & WASHERS: ASTM A-563
- ADMIXTURES:
 - AIR ENTRAINMENT: ASTM C-260 (provide as specified in ACI 308)
 - CEMENT TYPE (I OR II): ASTM C-50
 - CALCIUM CHLORIDE: NOT PERMITTED.
 - ALUMINUM PRODUCTS: NOT PERMITTED.
- CONCRETE SHALL HAVE THE FOLLOWING COMPRESSIVE STRENGTHS:

CONCRETE	MINIMUM f_c (28 DAYS)	SUMP	W/C RATIO
FOOTINGS	3000 psi	3' TO 5'	0.50
FOUNDATIONS	3000 psi	3' TO 5'	0.46
SLAB-ON-GRADE	3000 psi	3' TO 5'	0.50
CONCRETE NOT NOTED	3000 psi	3' TO 5'	0.50
- AT THE CONTRACTOR'S OPTION, AN APPROVED ADMIXTURE MAY BE USED TO PRODUCE FLOWABLE CONCRETE. MAXIMUM SUMP SHALL NOT EXCEED 8 INCHES. THE CONTRACTOR SHALL SUBMIT TEST RESULTS OF THE PROPOSED CONCRETE MIXES ALONG WITH THE MANUFACTURER'S TECHNICAL DATA FOR APPROVAL PRIOR TO POURING CONCRETE.
- THE CONTRACTOR IS ALLOWED TO HAVE ONLY ONE TYPE OF CONCRETE ON THE JOB SITE AT ONE TIME.
 - ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 308, 'SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS'. HOT WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 305.
 - COLD WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 306.
 - WELDING OF REINFORCING BARS IS NOT PERMITTED. REBAR SHALL NOT BE SUBSTITUTED FOR ANY OTHER TYPE OF REINFORCEMENT. SUBSTITUTION OF REINFORCING BARS OF ANY KIND SHALL BE AT THE ENGINEER OF RECORD'S WRITTEN CONSENT.
 - ALL REINFORCING STEEL SHALL BE SET AND TIED IN PLACE PRIOR TO POURING OF CONCRETE EXCEPT THAT VERTICAL DOUELS FOR MASONRY WALL REINFORCING MAY BE 'FLOATED' IN PLACE. DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER OF RECORD.
 - REINFORCING STEEL, INCLUDING HOOKS AND BENDS, SHALL BE DETAILED IN ACCORDANCE WITH ACI 318. ALL REINFORCING STEEL INDICATED AS BEING CONTINUOUS (CONT) SHALL BE LAPPED WITH A TYPE 2 LAP SPLICE UNLESS OTHERWISE NOTED. ALL WELDED WIRE FABRIC SHALL LAP AT LEAST ONE FULL MESH.
 - UNLESS NOTED OTHERWISE, THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - 1/2 THROUGH #6 BARS: 2"
 - 5 BAR W/3 OR D31 WIRE 4 SMALLER: 1 1/2"
 - CONCRETE NOT EXPOSED TO THE EARTH OR WEATHER:
 - WALLS, ELEVATED SLABS (JOISTS): 3/4"
 - BEAMS AND COLUMNS: 1 1/2"
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO THE EARTH: 3"
 - BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO INSURE MINIMUM CONCRETE COVER. BAR SUPPORTS SHALL BE PLASTIC TYPED OR STAINLESS STEEL.
 - UNLESS OTHERWISE APPROVED, ALL WELDED WIRE FABRIC SHALL BE BLOCKED INTO THE POSITION INDICATED WITH PRECAST CONCRETE BLOCKS HAVING A COMPRESSIVE STRENGTH EQUAL TO THAT OF THE SLAB.
 - FORM WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI STANDARD PUBLICATION 941 AND SHALL REMAIN IN PLACE UNTIL CONCRETE HAS OBTAINED AT LEAST 90% OF ITS 28-DAY COMPRESSIVE STRENGTH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, DETAIL, PLACEMENT AND REMOVAL OF ALL FORM WORK, SHORING AND RE-SHORING.
 - SLABS TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINMENT AS SPECIFIED ABOVE.
 - CONSTRUCTION AND CONTROL JOINTS SHALL BE INSTALLED IN THE SLABS ON GRADE SO THAT THE LENGTH TO WIDTH RATIOS IS NOT MORE THAN 1/5 TO 1. CONTROL JOINTS SHALL BE COMPLETED WITHIN 12 HOURS OF THE PLACEMENT OF THE CONCRETE. CONTROL JOINTS SHALL BE CUT INTO THE SLABS OR TOOLED IN THE SLABS A DEPTH OF 1/4 THE DEPTH OF THE SLAB. INSTALL JOINTS IN THE SLABS ON GRADE AT A SPACING NOT TO EXCEED 30 TIMES THE SLAB THICKNESS OF THE SLAB IN ANY DIRECTION UNLESS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS. CONSTRUCTION JOINTS SHALL BE LIMITED TO A SPACING OF NOT MORE THAN 15'-0" IN ANY DIRECTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT AND LOCATION OF ANY AND ALL EMBED ITEMS INCLUDING PLATES, BOLTS, AND OTHER INSERTS SPECIFIED IN THE DRAWINGS. REINFORCING STEEL FOR PRECAST CONCRETE PANELS SHOWN ON THE DRAWINGS ARE FOR THE GRAVITY, SEISMIC AND WIND LOADS ONLY. LIFTING PROCEDURES OF ALL PRECAST PANELS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL SUBMIT A COPY OF THE DESIGN CALCULATIONS AND SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR ALL PRECAST CONCRETE REINFORCEMENT AND LIFTING HARDWARE ASSOCIATED WITH HIS CHOSEN INSTALLATION PROCEDURE.
 - HORIZONTAL WALL REINFORCING BARS SHALL TERMINATE IN A 90-DEGREE STANDARD HOOK WITH A 6 BAR DIAMETER LENGTH EXTENSION. AT INTERSECTING WALLS, PROVIDE CORNER BARS OF THE SAME BAR SIZE AND SPACING AS THE HORIZONTAL WALL REINFORCEMENT.
 - VERTICAL WALL REINFORCING BARS SHALL HAVE MATCHING DOUELS THAT CONSIST OF A 90 DEGREE HOOK EMBEDDED WITHIN 4' OF THE BOTTOM OF THE FOOTING. THE DOUCEL SHALL EXTEND 20" INTO THE FOOTING.
 - REFER TO THE 'SPECIAL INSPECTION' SECTION OF THE GENERAL STRUCTURAL NOTES FOR ANY INSPECTION REQUIREMENTS.

PRE-ENGINEERED METAL BUILDINGS

- THE DESIGN, FABRICATION, AND ERECTION OF ALL PREFABRICATED ELEMENTS WITH THEIR ASSOCIATED HARDWARE SHALL COMPLY WITH THE LATEST REQUIREMENTS OF THE IBC, AISC, SSI, AND AISI.
- PRIOR TO FABRICATION AND INSTALLATION OF ANCHOR BOLTS, THE METAL BUILDING SUPPLIER SHALL SUBMIT COMPLETE SHOP DRAWINGS AND CALCULATIONS INCLUDING REACTIONS BEARING THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE SAME STATE AS THE BUILDING IS TO BE BUILT.
- DO NOT MODIFY ANY STRUCTURAL ELEMENT OF THE PREFABRICATED METAL BUILDING WITHOUT WRITTEN CONSENT AND DIRECTION FROM THE MANUFACTURER. SEND COPIES OF THE CONSENT AND MODIFICATIONS TO THE ARCHITECT AND ENGINEER.
- ALL OF THE ANCHOR BOLTS AND BASE PLATE CONNECTION OF THE PREFABRICATED COLUMNS, AND MISCELLANEOUS FRAMING MEMBERS TO THE FOUNDATIONS, SHALL BE OF THE NUMBER, MATERIAL, DIAMETER AND LAYOUT SHOWN IN THE PREFABRICATED METAL BUILDING DESIGNER/SUPPLIER/MANUFACTURERS DRAWINGS. THE DEPTH OF EMBEDMENT FOR THE ANCHOR BOLTS AND ANY OTHER MODIFICATIONS REQUIRED ARE SHOWN IN THESE STRUCTURAL CONTRACT DRAWINGS.
- THE FOUNDATION PLAN AND ASSOCIATED FOUNDATION DETAILS ON SHEETS 5601, 5602 AND 5603 ARE BASED SOLELY UPON COLUMN AND WALL LOADS PROVIDED FOR THEIR DESIGN. FARLEY ENGINEERING LLC IS RESPONSIBLE ONLY FOR SUPPORTING THE LOADS PROVIDED BY THE PREFABRICATED BUILDING MANUFACTURER AND ACCEPTS NO RESPONSIBILITY FOR THE DESIGN OF MEMBERS AND CONNECTIONS OF THE SUPERSTRUCTURE.
- COORDINATE TESTING & SPECIAL INSPECTIONS AND REQUIRED SUBMITTALS WITH THE PROJECT SPECIFICATIONS.

SPECIAL INSPECTION

- THE FOLLOWING ITEMS SHALL BE SPECIAL INSPECTED:
 - BOLTS INSTALLED IN CONCRETE: IBC SECTION 1104.4
 - METAL BUILDING STRUCTURAL STEEL: REFER TO SPECIFICATIONS
- THE SPECIAL INSPECTOR SHALL BE AN INDEPENDENT AGENCY HIRED BY THE OWNER UNLESS SPECIFICALLY INSTRUCTED OTHERWISE BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL COOPERATE IN EVERY WAY WITH THE INSPECTOR AND SHALL BE RESPONSIBLE FOR COORDINATING THE INSPECTIONS.
- THE SPECIAL INSPECTIONS ARE REPAIRED BY THE IBC CODE SECTION 1104.

MARKS AND ABBREVIATIONS

AB	ANCHOR BOLT	HORIZ	HORIZONTAL	T&B	TOP AND BOTTOM
ACI	AMERICAN CONCRETE INSTITUTE	TEMP	TEMPERATURE	T.O.	TOP OF
AISC	AMERICAN INSTITUTE OF BUILDING OFFICIALS	TOC	TOP OF CONCRETE	TOP	TOP OF DECK
ALT	ALTERNATE	TOF	TOP OF FOOTING	TOU	TOP OF WALL
ARCH	ARCHITECT	TYF	TYPICAL	UNO	UNLESS NOTED OTHERWISE
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	JST	JOIST	K	KIP + 1000 POUNDS
AWSA	AMERICAN WELDING SOCIETY	UNO	UNLESS NOTED OTHERWISE	KLF	KIPS PER LINEAL FOOT
BLDG	BUILDING	VERT	VERTICAL	KSF	KIPS PER SQUARE FOOT
BLW	BELOW	W	WITH	WUF	WELDED WIRE FABRIC
BRG	BEARING	WUF	WELDED WIRE FABRIC	LB6	POUNDS
BTUN	BETWEEN	LF	LINEAL FOOT	LF	LINEAL FOOT
C.J.	CONST. OR CONTROL JOINT	MAX	MAXIMUM	MIN	MINIMUM
C.O.L.	COLUMN	MISC	MISCELLANEOUS	NTS	NOT TO SCALE
CONC	CONCRETE	O.C.	ON CENTER	OF.	OUTSIDE FACE
CONT	CONTINUOUS	OFFP	OPPOSITE	FL	FLATE
CP-X	CONCRETE PIER MARK	PLF	POUNDS PER LINEAL FOOT	PSF	POUNDS PER SQUARE FOOT
CU-X	CONCRETE WALL MARK	PSI	POUNDS PER SQUARE INCH	REIN	REINFORCING
DBL	DOUBLE	REQD	REQUIRED	SHT	SHEET
DET	DETAIL	SI	SPECIAL INSPECTION	SIM	SIMILAR
DIA	DIAMETER	SOG	SLAB ON GRADE	SO	SQUARE
DIM	DIMENSION	STD	STANDARD	STFF	STIFFENER
DWG	DRAWING	STR	STEEL	STL	STRUCTURAL
DWL	DOUCEL	GA	GAUGE	GN	GENERAL STRUCTURAL NOTES
EA	EACH	GN	GENERAL STRUCTURAL NOTES		
EF	EACH FACE				
E.J.	EXPANSION JOINT				
ELEV	ELEVATION				
EQ	EQUAL				
EW	EACH WAY				
EXP	EXPANSION				
EXT	EXTERIOR				
FC-X	FOOTING CONTINUOUS MARK				
FND	FOUNDATION				
FS-X	SQUARE FOOTING MARK				
FTG	FOOTING				

MARK	WIDTH	LENGTH	THICKNESS	CROSSWISE REINFORCING			LENGTHWISE REINFORCING			REMARKS				
				NO.	SIZE	LENGTH SPACE	NO.	SIZE	LENGTH SPACE					
FC15	1'-6"	CONT.	12"				3	#5	2'-0"	12"	3	#5	2'-0"	12"
FS25	2'-6"	2'-6"	12"	3	#5	2'-0"	12"	3	#5	2'-0"	12"			
FS30	3'-0"	3'-0"	12"	3	#5	2'-6"	15"	3	#5	2'-6"	15"			
FS35	3'-6"	3'-6"	12"	3	#5	3'-0"	18"	3	#5	3'-0"	18"			
FS45	4'-6"	4'-6"	12"	4	#5	4'-0"	16"	4	#5	4'-0"	16"			
FS55	5'-6"	5'-6"	12"	5	#5	5'-0"	15"	5	#5	5'-0"	15"			

- PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3' CLEAR CONCRETE COVER UNLESS NOTED OTHERWISE.
- TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2' CLEAR CONCRETE COVER.
- THE SCHEDULED FOOTINGS ARE NOT NECESSARILY ALL USED.
- FTS-THICKENED SLAB FOOTING.
FC-CONTINUOUS FOOTING.
FS-SQUARE FOOTING.

1 CONCRETE FOOTING SCHEDULE

NO SCALE
FTS SCHED IS PBF-3.0 PBF106

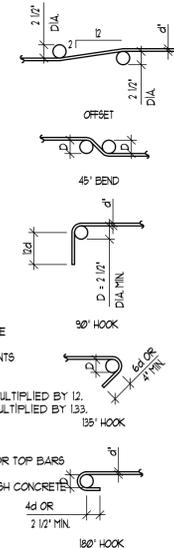
MARK	THICKNESS	f _c psi	REINFORCING		TYPE	COMMENTS
			VERTICAL	HORIZONTAL		
CP-1	8"	3000	#4 AT 16"oc	#4 AT 12"oc	(2) #5 x CONT.	A



2 CONCRETE WALL SCHEDULE

NO SCALE
CONC 530

BAR SIZE	f _c = 3000 PSI		f _c = 4000 PSI		f _c = 5000 PSI		f _c = 6000 PSI	
	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP	REGULAR	TOP
	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS	CLASS
#5	15"	17"	17"	21"	17"	21"	17"	21"
#4	18"	24"	24"	31"	18"	25"	18"	24"
#5	22"	29"	29"	38"	19"	25"	33"	17"
#5	27"	36"	36"	46"	24"	31"	40"	27"
#1	39"	51"	51"	66"	34"	44"	56"	39"
#5	49"	64"	64"	82"	47"	59"	71"	38"
#5	62"	80"	80"	104"	54"	70"	80"	49"
#10	78"	102"	102"	131"	69"	89"	105"	56"
#11	96"	125"	125"	162"	83"	108"	141"	76"



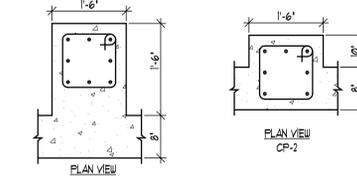
- THESE NOTES SHALL BE USED FOR ALL SPLICES UNLESS NOTED OTHERWISE.
- CLASS 'A' SPLICES MAY BE USED ONLY IN CASES WHERE 50% OR LESS OF THE BARS ARE SPLICED WITHIN THE LAP SPLICE LENGTH.
- CLASS 'B' SPLICES SHALL BE USED FOR ALL SPLICES UNLESS THE REQUIREMENTS OF NOTE 'A' ABOVE ARE MET.
- TIES AND STIRRUPS SHALL NOT BE SPLICED.
- FOR BUNDLED BARS OF THREE OR LESS, LAP SPLICE LENGTHS SHALL BE MULTIPLIED BY 1.3.
- FOR BUNDLED BARS OF FOUR OR MORE, LAP SPLICE LENGTHS SHALL BE MULTIPLIED BY 1.33.
- INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP.
- ENTIRE BUNDLES SHALL NOT BE LAP SPLICED.
- FOR ALL LIGHTWEIGHT CONCRETE, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3.
- FOR ALL EPOXY COATED BARS, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3 FOR TOP BARS AND 1.5 FOR REGULAR BARS.
- TOP BARS ARE CLASSIFIED AS HORIZONTAL BARS WHERE 12', OR MORE, OF FRESH CONCRETE IS CAST BELOW THE REINFORCING BAR.

3 CONCRETE REBAR LAP SPLICE SCHEDULE

NO SCALE
CONCRETE 50030

MARK	DIMENSIONS	f _c psi	VERTICAL REINFORCING	DOUELS TO FOOTING	TIE REINFORCING	TIES AT TOP
CP-1	8'x18'	3000	-	(8) #5 (FULL HEIGHT)	#5 AT 9"oc	(3) #5 AT 2'oc
CP-2	8'x18'	3000	-	(8) #5 (FULL HEIGHT)	#5 AT 9"oc	(3) #5 AT 2'oc

- RUN ALL FOUNDATION WALL REINFORCEMENT THRU ALL CONCRETE PIERS.



4 CONCRETE PIER SCHEDULE

NO SCALE
HO-SE-041

PRELIMINARY SET ONLY NOT FOR CONSTRUCTION

PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed. Do not remove this notice. Utah National Guard - Camp Williams Bldg. 503 Mess Hall (Remodel)

PRELIMINARY SET ONLY NOT FOR CONSTRUCTION

CONSULTANT INFORMATION
FARLEY ENGINEERING LLC
 STRUCTURAL ENGINEERING CONSULTANTS
 4625 South 2300 East, Suite 109 Holladay, Utah 84117
 farleyeng@quest.net, Ph (801) 274-3151

KEYED NOTES

FOOTING AND FOUNDATION PLAN NOTES

- COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
- SEE ARCHITECTURAL FOR ALL DIMENSIONS TO STEEL COLUMN.
- SEE DETAILS (1/550) AND (1/550) FOR BURIED PIPES RUNNING PARALLEL AND PERPENDICULAR TO FOOTINGS.
- SEE DETAIL 3/550 FOR FILL BENEATH FOOTINGS AT SOFT SPOTS.
- SEE 4/550 FOR FOUNDATION WALL INTERSECTION DETAIL.
- COORDINATE ALL SLAB CONTROL JOINTS AND CONSTRUCTION JOINTS WITH DETAIL 5/550. SEE ARCHITECTURAL DRAWINGS FOR SPACINGS.
- SEE DETAIL 6/550 FOR REINFORCING AROUND MISCELLANEOUS OPENINGS IN CONCRETE WALLS.

LEGEND

- DETAIL MARK SHEET NUMBER
- (2) #4 REBAR x 8'-0" LONG ADDED TO SLAB AT CENTER OF SLAB
- CJ- INDICATES CONTROL /CONSTRUCTION JOINT. SEE DETAILS 5/550
- CP-x INDICATE CONCRETE PIER. SEE SCHEDULE ON SHEET 5001
- CW-x INDICATES CONCRETE WALL TYPE. SEE SCHEDULE ON SHEET 5001
- FC-x INDICATES CONTINUOUS FOOTING. SEE SCHEDULE ON SHEET 5001
- F5-x INDICATES SPOT FOOTING. SEE SCHEDULE ON SHEET 5001

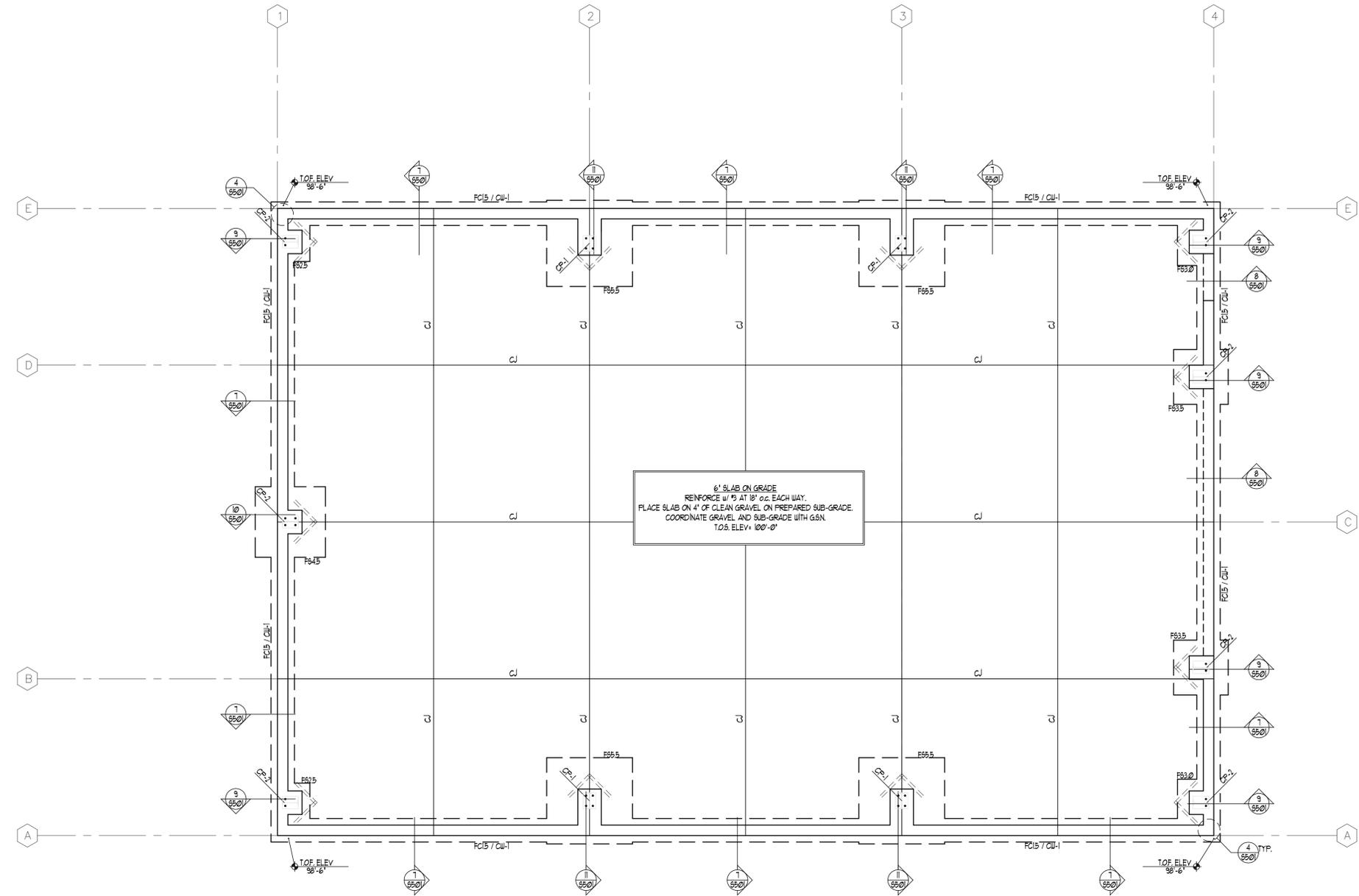
ENGINEER OF RECORD SHALL FURNISH 100% CONSTRUCTION DOCUMENTS UPON REVIEWING FINAL METAL BUILDING CALCULATIONS SUPPLIED BY THE GENERAL CONTRACTOR.

Utah National Guard
 NEW STORAGE BUILDING
 UTAH NATIONAL GUARD
 DRAPER, UTAH

SHEET TITLE
FOUNDATION PLAN

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY JR / CDP	CHECKED BY DMF
PROJECT NO. 07064	DRAWING NO. 5101
DATE 02/25/2008	



FOOTING & FOUNDATION PLAN
 SCALE: 1/4" = 1'-0"

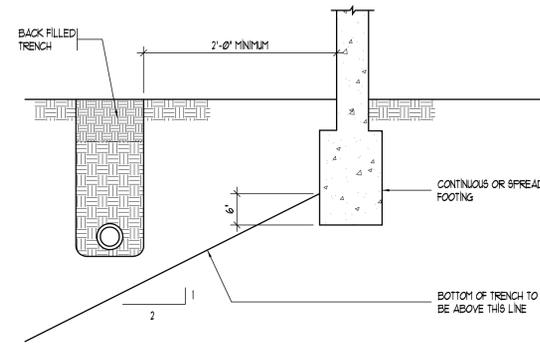
Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed. Utah National Guard - Camp Williams Bldg. 503 Mess Hall (Remodel)

PRELIMINARY SET ONLY NOT FOR CONSTRUCTION

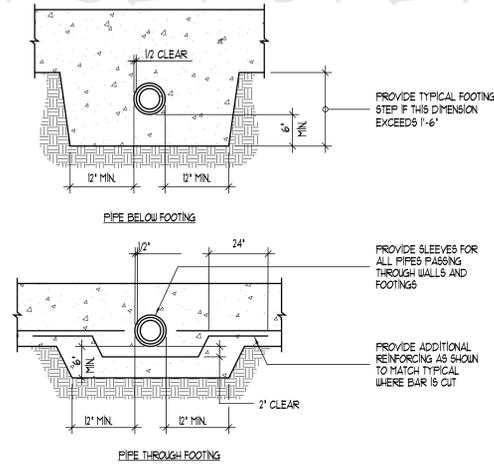
CONSULTANT INFORMATION
FARLEY ENGINEERING LLC
STRUCTURAL ENGINEERING CONSULTANTS
4625 South 2300 East, Suite 109 Holladay, Utah 84117
farleyeng@quest.net, Ptc (801) 274-3151

KEYED NOTES

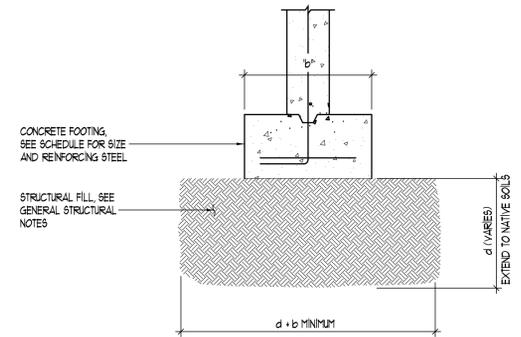
ENGINEER OF RECORD SHALL FURNISH 100% CONSTRUCTION DOCUMENTS UPON REVIEWING FINAL METAL BUILDING CALCULATIONS SUPPLIED BY THE GENERAL CONTRACTOR.



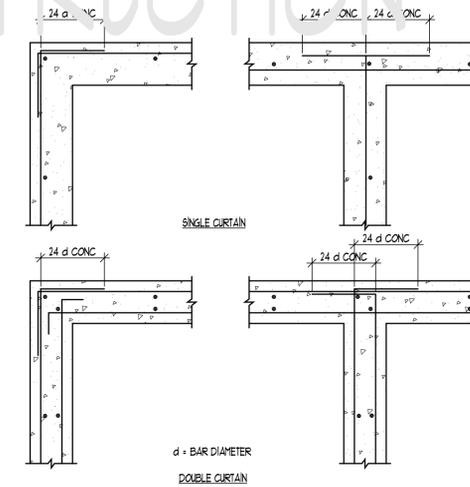
1 PIPE PARALLEL TO FOOTING DETAIL
NO SCALE
Dwg: JAG



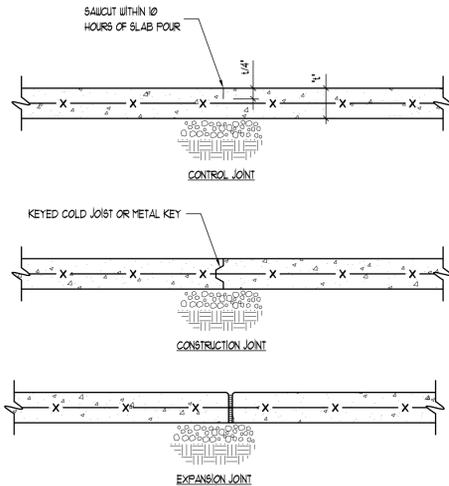
2 PIPE PERPENDICULAR TO FOOTING DETAIL
NO SCALE
Dwg: JAG



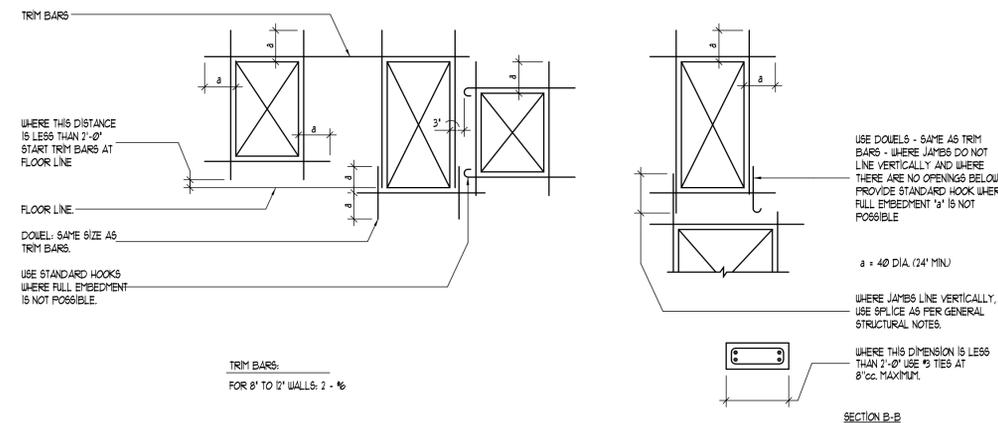
3 STRUCTURAL FILL DETAIL
NO SCALE
Struct: FI
Dwg: JAG



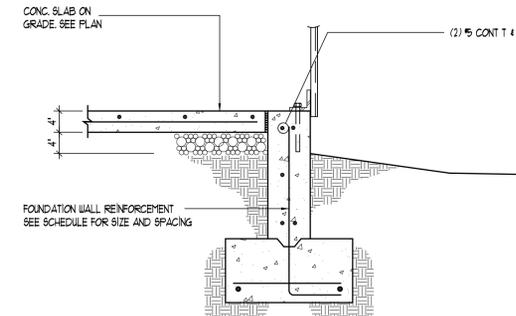
4 CONCRETE AND MASONRY WALL INTERSECTION REINFORCEMENT DETAIL
NO SCALE
Dwg: JAG



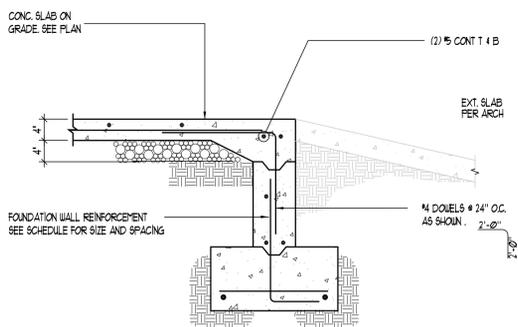
5 CONST./CONTROL JT. IN CONC. S.O.G.
NO SCALE
Dwg: JAG



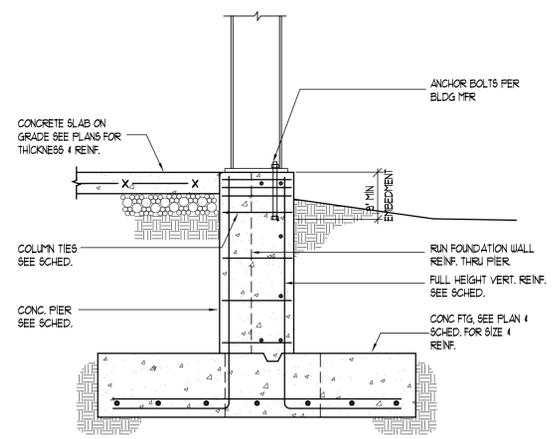
6 TYP. DETAILS OF TRIM BARS AROUND MISCELLANEOUS CONC. WALL OPENINGS. U.N.O.
NO SCALE
Dwg: JAG



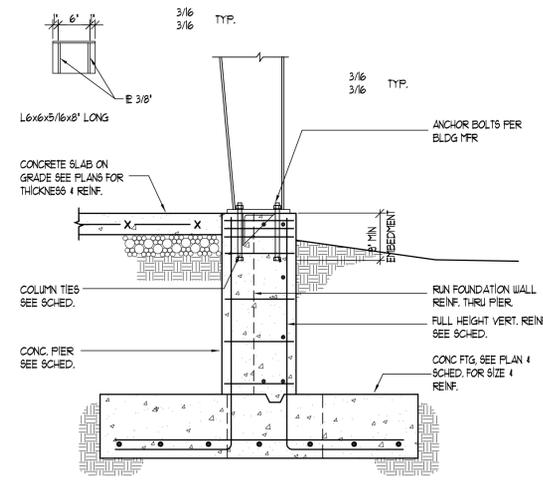
7 TYPICAL EXTERIOR FOUNDATION WALL DETAIL
NO SCALE
Ext: Fnd 6
Dwg: JAG



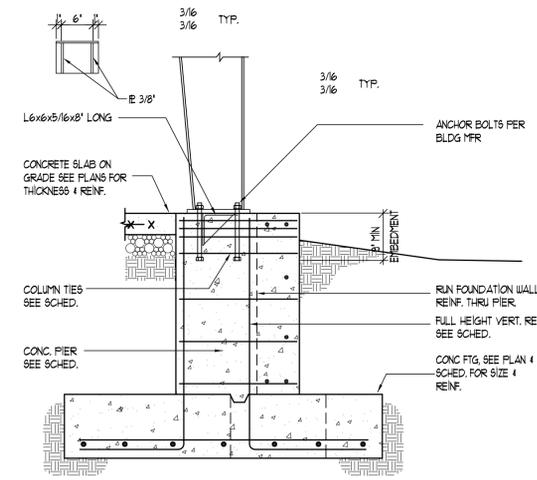
8 EXTERIOR FOUNDATION WALL AT OPENING
NO SCALE
Ext: Fnd 6
Dwg: JAG



9 STEEL COLUMN TO CONCRETE PIER DETAIL
NO SCALE
Stl: Col 1
Dwg: JAG



10 STEEL COLUMN TO CONCRETE PIER DETAIL
NO SCALE
Stl: Col 1
Dwg: JAG



11 STEEL COLUMN TO CONCRETE PIER DETAIL
NO SCALE
Stl: Col 1
Dwg: JAG

Utah National Guard
NEW STORAGE BUILDING
UTAH NATIONAL GUARD
DRAPER, UTAH

SHEET TITLE
DETAILS

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY JR / CDP	CHECKED BY DMF
PROJECT NO. 07064	DRAWING NO. S501
DATE 02/25/2008	

Utah National Guard - Camp Williams Bldg. 503 Mess Hall (Remodel) Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed.

CONDUCTOR AND CONDUIT SCHEDULE

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

SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1)		IG	SE	NOTES
			QTY	SIZE			
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

CONDUCTOR AND CONDUIT SCHEDULE NOTES

- CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
- PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
- PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
- GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
- 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.
- RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
REFERENCE AND LINE SYMBOLS	
	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ELEVATION OR SECTION INDICATOR, INTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ROOM OR SPACE NUMBER.
	KEYNOTE INDICATOR.
	REVISION INDICATOR.
	EQUIPMENT INDICATOR.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING.
	BREAK, ROUND.
	NEW LINE: MEDIUM LINE.
	HIDDEN FEATURES LINE: HIDDEN, THIN LINE.
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.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	JUNCTION BOX.
WIRING DEVICES	
	RECEPTACLE, DUPLEX: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
	SWITCH, SINGLE POLE ("X" INDICATES FIXTURES CONTROLLED).
ELECTRICAL POWER AND DISTRIBUTION	
	PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
	PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM).
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.

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

GENERAL ELECTRICAL NOTES

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

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED.

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

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

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

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

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

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

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

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

ELECTRICAL SHEET INDEX

SHEET NO	SHEET TITLE
EE001	SYMBOL LEGEND & SHEET INDEX
EE102	POWER PLAN
EE103	LIGHTING PLAN
EE501	SCHEDULES

265 East 100 South Suite 350
Salt Lake City, Utah 84111-1604
Ph (801) 521-8564 Fax (801) 365-2938

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

Utah National Guard

NEW STORAGE BUILDING
DRAPER, UTAH

SHEET TITLE

Symbol Legend/Sheet Index

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: PSS CHECKED BY: DLA, THJ

PROJECT NO: UTNG001 DRAWING NO: EE001

DATE: FEB 25, 2008

File Name: P:\2007\20070638\Drawings\Sheet\38EE102.dwg Last Plotted: 2008/02/21 @ 4:41 PM By: pss

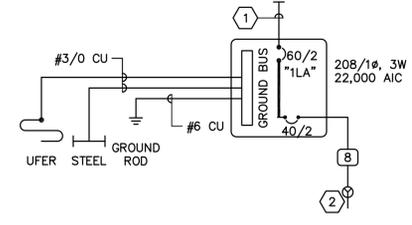
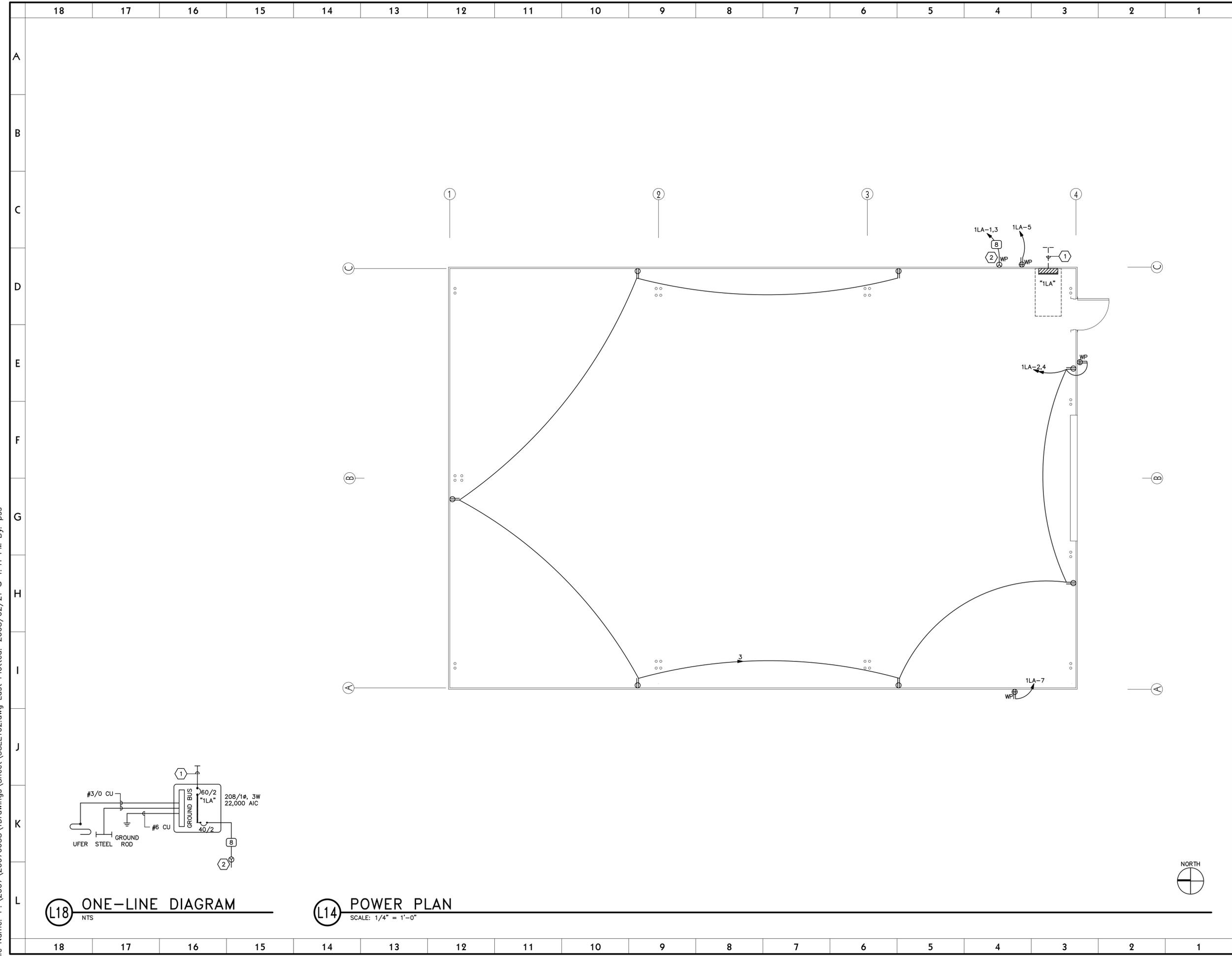


GENERAL SHEET NOTES

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

SHEET KEYNOTES

1. 2-INCH CONDUIT STUB TO 2- FEET OUTSIDE THE BUILDING. CAP, LABEL AND MARK.
2. RECEPTACLE FOR PORTABLE GENERATOR HOOK-UP. COORDINATE RECEPTACLE TYPE WITH UTAH NATIONAL GUARD.



L18 ONE-LINE DIAGRAM
 NTS

L14 POWER PLAN
 SCALE: 1/4" = 1'-0"



SHEET TITLE			
Power Plan			
REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

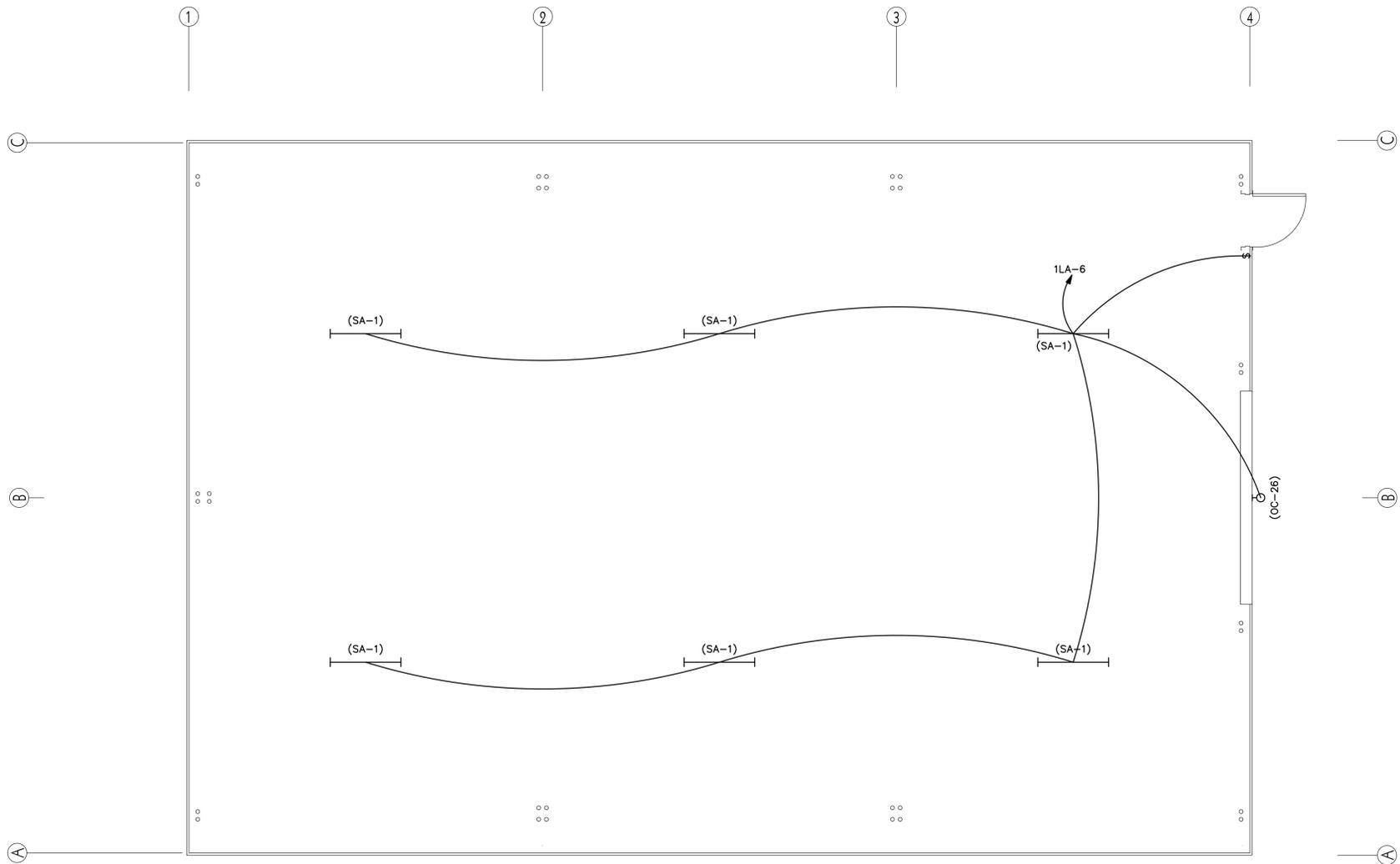
DRAWN BY	PSS	CHECKED BY	DLA, THJ
PROJECT NO.	UTNG001	DRAWING NO.	EE102
DATE	FEB 25, 2008		

Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed. Utah National Guard - New Storage Building, Draper, Utah

File Name: P:\2007\20070638\1Drawings\Sheet\38EE103.dwg Last Plotted: 2008/02/21 @ 4:41 PM By: pss

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

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



L14 LIGHTING PLAN
SCALE: 1/4" = 1'-0"

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

Harris & Associates
265 East 100 South Suite 350
Salt Lake City, Utah 84111-1604
Ph (801) 521-8564 Fax (801) 365-2938

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



Utah National Guard
NEW STORAGE BUILDING
DRAPER, UTAH

SHEET TITLE			
Lighting Plan			
REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY	PSS	CHECKED BY	DLA, THJ
PROJECT NO.	UTNG001	DRAWING NO.	EE103
DATE	FEB 25, 2008		

Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed. Utah National Guard - New Storage Building, Draper, Utah

File Name: P:\2007\20070638\1Drawings\Sheet\38EE501.dwg Last Plotted: 2008/02/21 @ 4:41 PM By: pss

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

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

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.

SYMBOL MARK	FIXTURE CHARACTERISTICS BODY / AIR / MOUNTING / DOOR	LAMP	WATTS	VOLTS	MANUFACTURER CATALOG NUMBER	NOTES
OC	WALL PACK; ADJUSTABLE CUT OFF; FULL PERIMETER GASKETING; WET LOCATION; STAINLESS STEEL HINGES AND LATCHES; PROJECTING LENS; HPF BALLAST; SEE ELEVATION FOR MOUNTING HEIGHT, COLOR AS SPECIFIED BY ARCHITECT.					
OC-26	100 PSMH, RECESSED J BOX. WIDE THROW, SQUARE, DECORATIVE	100PSMH	130W	277/120V	MCPHILBEN LSI LITHONIA LUMARK	101-WT-100MH-XX GBWS-3-100MH-F-MT-XX-NO WST 100M WT TB MHIP-T-100-MT-XX
SA	GENERAL PURPOSE INDUSTRIAL; WHITE ENAMEL, APERTURED REFLECTOR; PROGRAM START ELECTRONIC BALLASTS; T8 LAMPS; ONE BALLAST PER FIXTURE WHERE POSSIBLE; UNLESS TWO LEVEL SWITCHING IS SHOWN ON THE PLANS; STEM MOUNTED WITH TONG HANGERS.					
SA-1	4', 2-LAMP.	2-F32TB RE835	65W	277/120V	LITHONIA LIGHTOLIER METALUX HUBBELL COLUMBIA DAYBRITE	EJA232-MVOLT-TUBRHP-THUN KWA232-U-SOP IA-232-UNV-PROGRAM START IG142R-PP10-UPS CSR4-232U-EB8120/277 PROG-CSTH IA232-UNV-1/2-EB-SPEC

PANEL "1LA"

VOLTS/PHASE/WIRE:		PANEL SIZE & TYPE:		MAIN SIZE & TYPE:		LOCATION:		CABINET:		NOTES:							
120/208 V, 1 PH 3 WIRE		22" W x 6" D, BOLT-ON		60 AMPERE MAIN BKR				SURFACE									
ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, SUBFEED LUGS, SERVICE ENTRANCE RATED																	
CKT NO	AMP	POLE	LOAD (kVA)	DESCRIPTION	LCL kVA	PHASE	LOAD	LCL kVA	DESCRIPTION	LOAD (kVA)	OC	CKT NO					
1	40	2		GENERATOR FEED	0.0	0.8	0.8	0.8	RECEPTACLES	0.8	20	1 2					
3	-	-		----	0.0		0.8	0.8	RECEPTACLES		20	1 4					
5	20	1	0.2	EAST SIDE EXTER CO	0.2	0.7	0.6	0.6	LIGHTING	0.5	20	1 6					
7	20	1	0.2	WEST SIDE EXTER CO	0.2		0.2	0.0	SPARE		20	1 8					
9	20	1		SPARE	0.0	0.0	0.0	0.0	SPARE		20	1 10					
11	20	1		SPARE	0.0	0.0	0.0	0.0	SPARE		20	1 12					
13	20	1		SPARE	0.0	0.0	0.0	0.0	SPARE		20	1 14					
15	20	1		SPARE	0.0		0.0	0.0	SPARE		20	1 16					
TOTALS:					kVA PER PHASE		2		1		CONNECTED TOTAL kVA		2.5				
					AMPS PER PHASE		13		8		CONNECTED AVERAGE AMPS PER PHASE		12				
NEC DIVERSIFIED LOAD CALCULATIONS																	
LIGHTING 1kVA @125% =			1 kVA			ALL OTHER LOADS @100% =			0 kVA			DIVERSIFIED TOTAL kVA =			3		
RECEPTACLES 2kVA @100% =			2 kVA			25% OF LARGEST MOTOR =			0 kVA			AVERAGE AMPS PER PHASE =			13		
REMAINDER 0kVA @ 50% =			0 kVA														

STANDARD WIRING DEVICE SCHEDULE

Note to Bidders: Comply with Section 262726 of the specifications. The catalog numbers listed below have been carefully prepared with the assistance of the manufacturer's representatives with the objective of assisting the bidders in determining the quality and ratings of the wiring device specified; however, the catalog numbers may not be complete or accurate. In addition, the color of the wiring device is not intended to be determined by the catalog numbers listed below, but shall be selected by the Architect as indicated in the specification. Each manufacturer prior to bidding shall compare catalog numbers shown with the description and shall notify the Architect/Engineer of any discrepancies.

NEMA	DESCRIPTION	CATALOG NUMBERS
NEMA 5-20R	20A, 125V 2 pole 3 wire duplex grounding receptacles. Nylon or Lexan Faces. Back and side wired. Comply with FS W-C-596 and UL 498.	Bryant 5352 Hubbell CR5352 Leviton 5352 P&S 5352
NEMA 5-20R GFCI	20A, 125V 2 pole 3 wire duplex feed thru GFCI receptacles with indicator light. Nylon or Lexan decorator faces. Back and side wired. Internal components shall comply with FS W-C-596 where applicable. Comply with UL 498 and UL 493.	Bryant GFR53FT Hubbell GF5352 Leviton 6898 P&S 2091 S
NEMA 5-20R Waterproof (Weatherproof in use)	20A, 125V 2 pole 3 wire duplex grounding receptacles. Nylon or Lexan Faces. Back and side wired. Comply with FS W-C-596 and UL 498. Fully gasketed weatherproof while in use enclosure.	Hubbell CR5352/5051-0
20A Single Pole	20A single pole 125V-277V standard toggle switch labeled as complying UL standard 20 and with Federal Specification W-S-896. Provide Nylon or Lexan face, back and side wired. Rated 1 HP 120V.	Hubbell CS1221 Leviton 1221 P & S 521 Bryant 4901

Harris & Associates
265 East 100 South Suite 350
Salt Lake City, Utah 84111-1604
Ph (801) 521-8564 Fax (801) 365-2938

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

SPECTRUM ENGINEERS

Utah National Guard

NEW STORAGE BUILDING
DRAPER, UTAH

SHEET TITLE

Schedules

REVISIONS	DATE	BY	DESCRIPTION
△			
△			
△			
△			

DRAWN BY: PSS CHECKED BY: DLA, THJ

PROJECT NO: UTNG001 DRAWING NO: EE501

DATE: FEB 25, 2008

Do not remove this notice. PROPERTY OF THE UNITED STATES GOVERNMENT. FOR OFFICIAL USE ONLY. Properly destroy documents when no longer needed. Utah National Guard - New Storage Building, Draper, Utah