

MATERIALS LEGEND

	Concrete Masonry Units		Gravel / Rock Fill
	Masonry		Finish Lumber
	Masonry (Elevation)		Glass
	Concrete		Glass (Plan View)
	Concrete (Elevation)		Gypsum Board
	Earth		Plywood
	Granular Fill		Rigid Insulation
			Steel

ARCHITECTURAL SYMBOLS LEGEND

Drawing Title	XXXXXXXXXXXXXXXXXX
Drawing Reference	XXXXXXXXXXXXXXXXXX
Drawing Scale	SCALE 1/4" = 1'-0"
Building Section Reference	
Wall Section Reference	
Detail Reference	
Sheet Reference	
Elevation Marker	
North Arrow	
Elevation Reference	
Sheet Reference	
Revision Number	
Break Line	
Opening Reference	
Partition Type Reference	

CODE ANALYSIS

APPLICABLE CODES			
	Year		Year
International Building Code	2009	National Electrical Code	2008
International Mechanical Code	2009	Uniform Code for Building Conservation	N/A
International Fuel Gas Code	2009	ADA Accessibility Guidelines	2003 ANSI A117.1
International Plumbing Code	2009	1994 ADAG	
International Fire Code	2009		
International Energy Conservation Code	2009		

A. Occupancy and Group: A-2 (Food/drink consumption) A-3 (Exhibition hall - Main occ.)  
Change in Use: Yes  No  Mixed Occupancy: Yes  No   
Special Use and Occupancy (e.g. High Rise, Covered Mall): N/A

B. Seismic Design Category: D Design Wind Speed: N/A mph

C. Type of Construction (circle one):  
I I II II III III IV V V  
A B A B A B HT A B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):  
North: 0 South: 0 East: 0 West: 0

E. Mixed Occupancies: YES Nonseparated Uses: NO

F. Sprinklers:  
Required: NO Provided: NO  
Type of Sprinkler System (IBC 903.3.1): N/A

G. Number of Stories: ONE Building Height: (EXISTING, LESS THAN 40')

H. Actual Area per Floor (square feet): 4,938

I. Tabular Area: (table 503): 6,000

J. Area Modifications: N/A

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

b) Sum of the Ratio Calculations for Mixed Occupancies:  
Actual Area  $\leq$  Allowable Area

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

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

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

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

L. Design Occupant Load: 106  
Exit Width Required: 21.2' Exit Width Provided: 144'

M. Minimum Number of Required Plumbing Facilities:

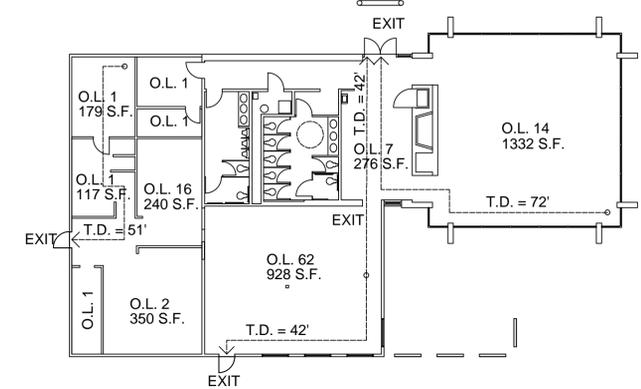
- a) Water Closets - Required (m) 1 (f) 2 Provided (m) 2 (f) 5
- b) Urinals - Required (m) 1 (f) 0 Provided (m) 3 (f) 0
- c) Lavatories - Required (m) 1 (f) 1 Provided (m) 3 (f) 3
- d) Bath Tubs or Showers: N/A
- e) Drinking Fountains: 1 Service Sinks: 1

FOOTNOTES:  
1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

- 2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
  - a) High Rise Requirements.
  - b) Atriums.
  - c) Performance Based Criteria.
  - d) Means or Egress Analysis.
  - e) Fire Assembly Locator Sheet.
  - f) Exterior and Interior Accessibility Route.
  - g) Fire Stopping, Including Tested Design Number.

DRAWING INDEX

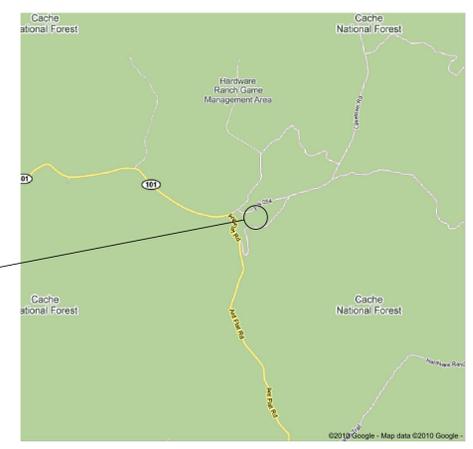
SHEET #	DRAWING TITLE
GI-001	COVER SHEET
GI-002	GENERAL INFORMATION
CC-100	EXISTING SITE CONTOUR PLAN
CC-101	REVISED SITE CONTOUR PLAN
CD-100	SITE DEMOLITION PLAN
C-100	SITE REMODEL PLAN
S-001	GENERAL STRUCTURAL NOTES
S-002	DFCM SPECIAL INSPECTION FORMS
S-101	STRUCTURAL FRAMING PLANS AND DETAILS
AE-100	DEMOLITION FLOOR PLAN
AE-101	FLOOR PLAN
AE-500	DETAILS
M-100	HVAC REMODEL PLAN
PE-100	PLUMBING / ELECTRICAL DEMOLITION AND REMODEL PLANS



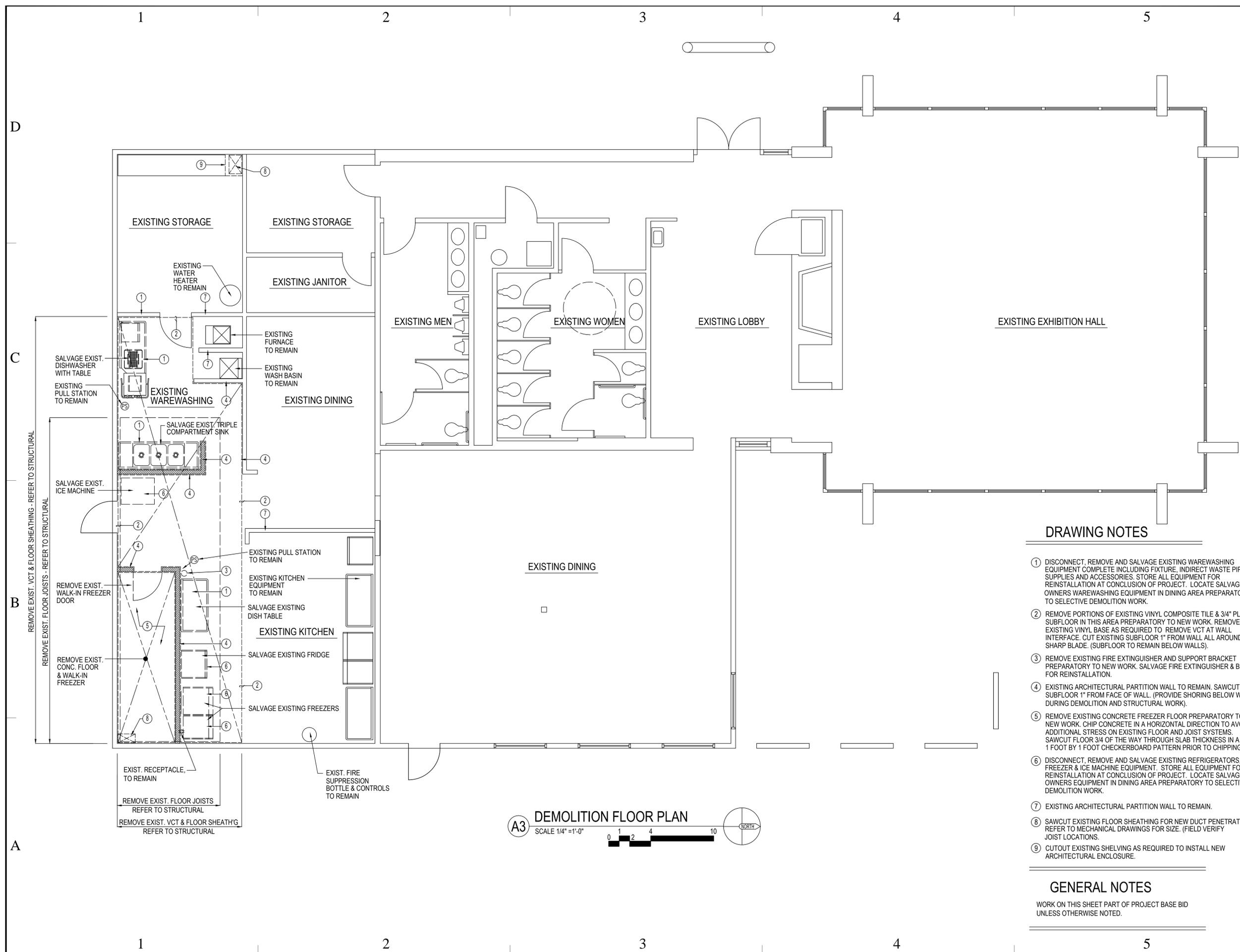
B4 CODE PLAN  
SCALE: NONE



A3 LOCATION MAP  
SCALE: NONE



A5 VICINITY MAP  
SCALE: NONE



**DRAWING NOTES**

- ① DISCONNECT, REMOVE AND SALVAGE EXISTING WAREWASHING EQUIPMENT COMPLETE INCLUDING FIXTURE, INDIRECT WASTE PIPING, SUPPLIES AND ACCESSORIES. STORE ALL EQUIPMENT FOR REINSTALLATION AT CONCLUSION OF PROJECT. LOCATE SALVAGED OWNERS WAREWASHING EQUIPMENT IN DINING AREA PREPARATORY TO SELECTIVE DEMOLITION WORK.
- ② REMOVE PORTIONS OF EXISTING VINYL COMPOSITE TILE & 3/4" PLYWOOD SUBFLOOR IN THIS AREA PREPARATORY TO NEW WORK. REMOVE EXISTING VINYL BASE AS REQUIRED TO REMOVE VCT AT WALL INTERFACE. CUT EXISTING SUBFLOOR 1" FROM WALL ALL AROUND WITH SHARP BLADE. (SUBFLOOR TO REMAIN BELOW WALLS).
- ③ REMOVE EXISTING FIRE EXTINGUISHER AND SUPPORT BRACKET PREPARATORY TO NEW WORK. SALVAGE FIRE EXTINGUISHER & BRACKET FOR REINSTALLATION.
- ④ EXISTING ARCHITECTURAL PARTITION WALL TO REMAIN. SAWCUT SUBFLOOR 1" FROM FACE OF WALL. (PROVIDE SHORING BELOW WALLS DURING DEMOLITION AND STRUCTURAL WORK).
- ⑤ REMOVE EXISTING CONCRETE FREEZER FLOOR PREPARATORY TO NEW WORK. CHIP CONCRETE IN A HORIZONTAL DIRECTION TO AVOID ADDITIONAL STRESS ON EXISTING FLOOR AND JOIST SYSTEMS. SAWCUT FLOOR 3/4 OF THE WAY THROUGH SLAB THICKNESS IN A 1 FOOT BY 1 FOOT CHECKERBOARD PATTERN PRIOR TO CHIPPING.
- ⑥ DISCONNECT, REMOVE AND SALVAGE EXISTING REFRIGERATORS, FREEZER & ICE MACHINE EQUIPMENT. STORE ALL EQUIPMENT FOR REINSTALLATION AT CONCLUSION OF PROJECT. LOCATE SALVAGED OWNERS EQUIPMENT IN DINING AREA PREPARATORY TO SELECTIVE DEMOLITION WORK.
- ⑦ EXISTING ARCHITECTURAL PARTITION WALL TO REMAIN.
- ⑧ SAWCUT EXISTING FLOOR SHEATHING FOR NEW DUCT PENETRATION. REFER TO MECHANICAL DRAWINGS FOR SIZE. (FIELD VERIFY JOIST LOCATIONS).
- ⑨ CUTOUT EXISTING SHELVING AS REQUIRED TO INSTALL NEW ARCHITECTURAL ENCLOSURE.

**GENERAL NOTES**

WORK ON THIS SHEET PART OF PROJECT BASE BID UNLESS OTHERWISE NOTED.

**A3 DEMOLITION FLOOR PLAN**  
SCALE 1/4" = 1'-0"  
0 1 2 4 10



ARCHITECT:



Sanders Associates Architects

Architecture  
Planning  
Interiors



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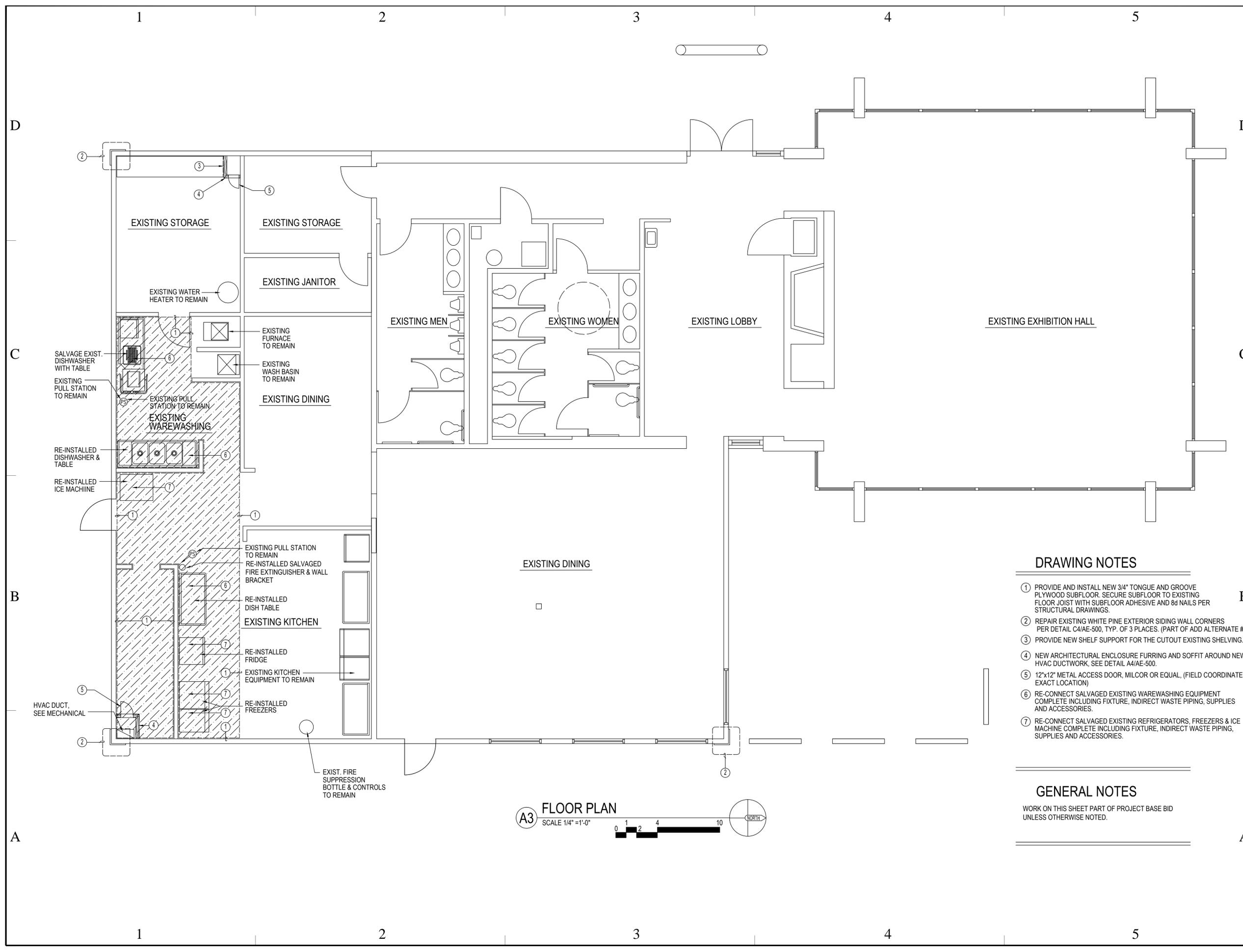
CONSULTANT:

PROJECT TITLE:

**HARDWARE RANCH  
VISITORS CENTER  
SITE AND HVAC  
IMPROVEMENTS**

HYRUM, UTAH

MARK	DATE	DESCRIPTION
		ISSUE TYPE: 100% CD DRAWINGS
		ISSUE DATE: 9/13/10

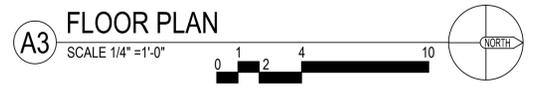


**DRAWING NOTES**

- ① PROVIDE AND INSTALL NEW 3/4" TONGUE AND GROOVE PLYWOOD SUBFLOOR. SECURE SUBFLOOR TO EXISTING FLOOR JOIST WITH SUBFLOOR ADHESIVE AND 8d NAILS PER STRUCTURAL DRAWINGS.
- ② REPAIR EXISTING WHITE PINE EXTERIOR SIDING WALL CORNERS PER DETAIL C4/AE-500, TYP. OF 3 PLACES. (PART OF ADD ALTERNATE #1).
- ③ PROVIDE NEW SHELF SUPPORT FOR THE CUTOUT EXISTING SHELVING.
- ④ NEW ARCHITECTURAL ENCLOSURE FURRING AND SOFFIT AROUND NEW HVAC DUCTWORK, SEE DETAIL A4/AE-500.
- ⑤ 12"x12" METAL ACCESS DOOR, MILCOR OR EQUAL, (FIELD COORDINATE EXACT LOCATION)
- ⑥ RE-CONNECT SALVAGED EXISTING WAREWASHING EQUIPMENT COMPLETE INCLUDING FIXTURE, INDIRECT WASTE PIPING, SUPPLIES AND ACCESSORIES.
- ⑦ RE-CONNECT SALVAGED EXISTING REFRIGERATORS, FREEZERS & ICE MACHINE COMPLETE INCLUDING FIXTURE, INDIRECT WASTE PIPING, SUPPLIES AND ACCESSORIES.

**GENERAL NOTES**

WORK ON THIS SHEET PART OF PROJECT BASE BID UNLESS OTHERWISE NOTED.



**AE101**



GENERAL

- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS FOR THIS PROJECT. 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 COORDINATE WITH ALL TRADES ALL ITEMS THAT ARE TO BE INTEGRATED INTO THE STRUCTURAL SYSTEM. ORDER OF CONSTRUCTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR. HE SHALL PROVIDE ALL ITEMS NECESSARY FOR HIS CHOSEN PROCEDURE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STANDARDS OF OSHA, CHAPTER 33 OF THE IBC 2009, AND LOCAL ORDINANCES AND CODES. 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 GOING 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. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT BE CONSTRUED AS INSPECTION, NOR AS APPROVAL OF CONSTRUCTION.
- 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.
- ANY DEVIATION FROM THE CONTRACT DOCUMENTS SHALL BE APPROVED BY THE ENGINEER & SHALL BE SO DOCUMENTED. THIS DOCUMENTATION SHALL BECOME PART OF THE CONTRACT DOCUMENTS. DEVIATION FROM THE CONTRACT DOCUMENTS SHALL NOT BE ALLOWED ON SHOP DRAWINGS, WITHOUT A SPECIFIC STATEMENT IN THE FORM OF A COVER LETTER DESCRIBING THE PROPOSED DEVIATION, & REQUESTING APPROVAL. THE CONTRACTOR SHALL REVIEW & VERIFY ALL SHOP DRAWINGS TO ASSURE THEY COMPLY W/ REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE ENGINEER WILL REVIEW THE SHOP DRAWINGS FOR GENERAL CONFORMANCE W/ DESIGN CONCEPT. THIS REVIEW BY THE ENGINEER SHALL NOT BE CONSTRUED AS APPROVAL.
- SUBMIT SHOP DRAWINGS IN THE FORM OF FOUR 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 DESIGN(S).
  - 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.

EXISTING CONSTRUCTION

- BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.
- THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER OF RECORD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE. THE SHORING SHOWN IS A PARTIAL AND SCHEMATIC REPRESENTATION OF THAT REQUIRED. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR SHORING, BRACING AND PROTECTION OF THE EXISTING CONSTRUCTION. THE PLAN SHALL INCLUDE A CONSTRUCTION SEQUENCE, BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE THE PROJECT IS TO BE CONSTRUCTED IN AND BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO BEGINNING THE WORK.

EARTHWORK

- STRIP THE TOP 12" TO 18" OF TOP SOIL AND REMOVE ANY AND ALL UNSUITABLE FILL, DEBRIS AND VEGETATION. ANY UNSUITABLE SOILS SHALL BE STRIPPED DOWN TO NATURAL UNDISTURBED SOILS AND REPLACED WITH STRUCTURAL FILL AS REQUIRED.
- ALL EXISTING FOUNDATIONS SHALL BE REMOVED.
- ALL SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL.
- STRUCTURAL FILL SHALL BE WELL GRADED GRANULAR MATERIAL WITH A MAXIMUM SIZE LESS THAN 4" AND WITH NOT MORE THAN 10% PASSING A NO. 200 SIEVE. FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM LABORATORY DENSITY AS DETERMINED BY ASTM D 1557. THE CONTRACTOR SHALL HAVE ALL FILL TESTED.

FOUNDATIONS

- ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 1,500 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.
- THE BOTTOM OF ANY FOOTINGS EXPOSED TO THE FREEZE THAN CYCLE SHALL BE PLACED A MINIMUM OF 36 INCHES BELOW GRADE FOR FROST PROTECTION.
- 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:
  - CEMENT: CEMENT SHALL CONFORM TO "SPECIFICATION FOR PORTLAND CEMENT", (ASTM C150). CEMENT SHALL BE TYPE ONE UNLESS EXPOSED TO SULFATES, WHERE CEMENT IS EXPOSED TO SULFATES, CEMENT SHALL MEET THE REQUIREMENTS OF ACI 308 SECTION 4.3.
  - NORMAL WEIGHT AGGREGATE: ASTM C-33.
  - REINFORCING STEEL: ASTM A-615, Fy = 60 ksi.
  - GRADE 40: Fy = 40 ksi. (Field bent dowels with spacings reduced by 1/3.)
- 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 SECTION 4.2)
  - CALCIUM CHLORIDE: NOT PERMITTED.
  - ALUMINUM PRODUCTS: NOT PERMITTED.
- CONCRETE SHALL HAVE THE FOLLOWING COMPRESSIVE STRENGTHS:
 

CONCRETE	MINIMUM Fc (28 DAYS)	SLUMP	W/C RATIO
FOUNDATIONS	3000 psi	3" TO 5"	0.50

 SLUMP: CONCRETE w/o ADMIXTURES SHALL HAVE A MAXIMUM SLUMP OF 4".
- AT THE CONTRACTOR'S OPTION, AN APPROVED ADMIXTURE MAY BE USED TO PRODUCE FLOWABLE CONCRETE. MAXIMUM SLUMP 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. SEE ACI 301-05 4.2.2.2 FOR SPECIFIC SLUMP REQUIREMENTS.
- 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 301, "SPECIFICATION FOR STRUCTURAL CONCRETE".
- HOT WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 305, COLD WEATHER CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 306.
- HELDING 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 DOWELS 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 305, 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:
    - #4 THROUGH #10 BARS: 2"
    - #5 BAR, #3 OR #31 WIRE & 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.
- FORM WORK SHALL COMPLY WITH THE REQUIREMENTS OF ACI STANDARD PUBLICATION #347 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 ENTRAINED 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 1.25 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 125'-0" IN ANY DIRECTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT AND LOCATION OF ANY AND ALL EMBEDDED 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.
- REFER TO THE 'SPECIAL INSPECTION' SECTION OF THE GENERAL STRUCTURAL NOTES FOR INSPECTION REQUIREMENTS.

EPOXY

- USE SIMPSON SET-XP EPOXY ANCHORING SYSTEMS FOR ANY EPOXY ANCHORING INTO CONCRETE, U.N.O. ON PLANS OR IN DETAILS. USE SIMPSON SET EPOXY ANCHOR SYSTEM FOR ANY EPOXY ANCHORING INTO MASONRY.
- HOLES SHALL BE DRILLED TO THE REQUIRED DEPTHS LISTED IN THE EPOXY ANCHOR SCHEDULE USING ROTARY HAMMER DRILLS AND CARBIDE-TIPPED DRILL BITS, COMPLYING W/ ANSI B272.15-1994. THE BIT DIAMETERS MUST COMPLY WITH THOSE LISTED ON SHEET 5500.
- USE MINIMUM GRADE A307 GRADED THREADED ANCHORS U.N.O., AND ALL ROD THREADS MUST COMPLY W/ ANSI B1.1-74.
- THE MINIMUM BASE MATERIAL INSTALLATION TEMPERATURE FOR THESE SYSTEMS IS 40° FAHRENHEIT.
- AFTER DRILLING, ALL HOLES MUST BE CLEANED FROM THE BOTTOM W/ FORCED AIR. A WIRE BRUSH SHALL THEN BE USED TO CLEAN DUST AND SLURRY FROM THE HOLE. FOLLOW THIS BY ANOTHER CLEANING W/ FORCED AIR, ENSURING THAT THERE ARE NO LOOSE DEBRIS NOR MATERIALS IN THE HOLE.
- ADHESIVE SHALL THEN BE PUMPED INTO THE HOLE AND ANCHORS OR BARS INSTALLED. PER MANUFACTURER'S SPECIFICATIONS, ANCHORS OR BARS SHALL BE INSERTED BY ROTATING A MINIMUM OF TWO TURNS TO EVENLY DISTRIBUTE EPOXY.
- CURE TIMES SHALL BE DETERMINED PER MANUFACTURER'S RECOMMENDATIONS. REFER TO RESPECTIVE ICC EVALUATION REPORTS.
- PER ICCO REQUIREMENTS, CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR ALL ADHESIVE ANCHOR INSTALLATIONS. THE SPECIAL INSPECTOR SHALL RECORD AND SUBMIT COMPLIANCE OF THE FOLLOWING:
  - DRILL BIT TYPE AND SIZE, PER ANSI B272.15-1994
  - HOLE DEPTH AND CLEANNESS
  - PRODUCT DESCRIPTION, INCLUDING PRODUCT NAME, ROD DIAMETER, AND LENGTH
  - ADHESIVE EXPIRATION DATE
  - VERIFICATION OF ANCHOR INSTALLATION PER THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- THESE CONDITIONS ONLY APPLY WHEN ANCHORS OR BARS ARE INSTALLED IN NORMAL-WEIGHT CONCRETE OR GROUT - FILLED CONCRETE MASONRY WALLS.
- MINIMUM EDGE, END, AND SPACING DISTANCES PER MANUFACTURER'S RECOMMENDATIONS, AND SER'S DETAILS.

WOOD SHEATHING NOTES

- ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS.
- ALL FLOOR PANEL SHEATHING SHALL BE APA RATED SHEATHING. THE SHEATHING EDGES SHALL BE BLOCKED AND NAILED AS SPECIFIED IN THE DIAPHRAGH SCHEDULE. FLOOR SHEATHING SHALL BE GLUED TO ALL JOISTS AND BLOCKS, IN CONTACT WITH THE SHEATHING, PRIOR TO NAILING. THE FLOOR SHEATHING SHALL HAVE A SPAN RATING OF 48/24.
- INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS ITS SUPPORTING MEMBERS WITH THE PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS AND ALLOW A 1/8" GAP SPACING AT ALL PANEL EDGES UNLESS OTHERWISE SPECIFIED BY THE SHEATHING MANUFACTURER.
- ALL NAILING SHALL BE CAREFULLY INSTALLED AND NOT OVER DRIVEN. THE NAIL AND STAPLES PROPERTIES ARE SPECIFIED IN DIAPHRAGH SCHEDULES.
- SHEATHING FASTENERS WHICH ARE DRIVEN INTO PRESERVATIVE TREATED WOOD SHALL MEET THE REQUIREMENTS OF IBC 2304.9.5.

WOOD FRAMING NOTES

- ALL WOOD FRAMING MATERIAL SHALL BE SURFACED DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALLOWABLE STRESS REQUIREMENTS OF ALL MATERIAL SHALL BE IN ACCORDANCE WITH THE NDS.
- ALL FRAMING MEMBERS SHALL BE NO. 2 OR BETTER DOUGLAS FIR UNLESS NOTED OTHERWISE. EXTERIOR WALLS ARE FRAMED WITH 2x6 STUDS @ 16"o.c. UNLESS NOTED OTHERWISE.
- ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE REDWOOD, CEDAR OR SHALL MEET THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS OR OF NATURAL WEATHER RESISTANT MATERIAL.
- THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOAD BEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOAD BEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSION.
- ALL NAILING NOT OTHERWISE INDICATED SHALL BE IN ACCORDANCE WITH THE 'NAILING SCHEDULE' ON THE STRUCTURAL SCHEDULE SHEET. NAILING SHALL NOT BE OVERDRIVEN. NAILS INSTALLED INTO PRESERVATIVE TREATED WOOD SHALL MEET THE REQUIREMENTS OF IBC 2304.9.5.
- PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS WHICH RUN PARALLEL WITH JOISTS AND UNDER ALL CONCENTRATED LOADS FROM FRAMING ABOVE. PROVIDE FULL DEPTH BLOCKING BETWEEN JOISTS UNDER ALL PARTITION WALLS RUNNING PERPENDICULAR TO JOIST FRAMING.
- PROVIDE GIRDER BEAMS OF THE SAME SIZE AS JOISTS OR RAFTERS TO FRAME AROUND OPENINGS IN THE PLYWOOD DECK UNLESS OTHERWISE INDICATED.
- STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED. BOLTS CONNECTING WOOD MEMBERS SHALL BE PER ASTM A-307 AND BE 3/4" DIAMETER UNLESS OTHERWISE INDICATED. PROVIDE WASHERS ANSI STD PLAIN TYPE B NARROW WASHERS WITH INSIDE AND OUTSIDE DIAMETERS MEETING THE ANSI STANDARD SPECIFICATIONS, FOR ALL BOLT HEADS AND NUTS IN CONTACT WITH WOOD SURFACES.
- BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/4" LARGER THAN THE BOLT DIAMETER. BOLTED CONNECTIONS SHALL BE SNUGGLED TIGHT BUT NOT TO THE EXTENT OF CRUSHING THE WOOD UNDER THE WASHERS.
- PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY 'SIMPSON STRONG-TIE COMPANY' OR AN APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS.
- ALL PLATES, ANCHORS, NAILS, WOOD SCREWS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE IN CONTACT WITH TREATED WOOD MEMBERS SHALL BE HOT DIP GALVANIZED (INCLUDING WOOD SILL ANCHOR BOLTS).
- PROVIDE SILL PLATE ANCHOR BOLTS TO CONCRETE FOUNDATION PER SHEAR WALL SCHEDULE. BELOW WINDOW OPENINGS PROVIDE MINIMUM NUMBER OF A-BOLTS PER ADJACENT SHEARWALLS.
- WOOD SCREWS SHALL CONFORM TO THE DIMENSIONAL DATA OF ANSI/ASME STANDARD B16.1-1981.
- TOP PLATES OF ALL STUD WALLS SHALL BE (2) 2x MEMBERS AND HAVE THE SAME SIZE AS STUDS. LAP PLATES 4 FEET.
- SOLID BLOCK BETWEEN ALL JOISTS AT ENDS AND AT SUPPORTS. BLOCKING TIMBER SHALL BE 2x MEMBERS THE SAME SIZE AS STUDS, JOISTS, OR RAFTERS. BLOCKING SHALL EXTEND TIGHT TO UNDERSIDE OF SHEATHING ABOVE. ALL BEAMS AND/OR GIRDERS SHALL BE BRACED AGAINST ROTATION & TWISTING AT ENDS AND AT INTERMEDIATE SUPPORTS. THIS BRACING CAN BE IN THE FORM OF BLOCKING OR METAL HANGERS.
- UNLESS MORE STRINGENT REQUIREMENTS ARE NOTED ON THE DRAWINGS, ANCHOR ROOF TRUSSES/JOISTS TO SILL PLATE WITH A SIMPSON H25 FRAMING ANCHOR @ 24" O-C UNLESS NOTED OTHERWISE ON DRAWINGS. ALL WOOD-TO-WOOD FACE JOINT CONNECTIONS SHALL BE MADE WITH SIMPSON LU HANGERS, WITH SIZE CORRESPONDING TO THE BEAM/JOIST/RAFTER MEMBER.
- INSTALL LAG BOLTS WITH LEAD HOLE EQUAL TO 0.6 TO 0.75 TIMES THE SHANK DIAMETER AND EQUAL IN DEPTH TO THE LENGTH OF THREADS.

SPECIAL INSPECTION

- SPECIAL INSPECTION AND QUALITY ASSURANCE, AS REQUIRED BY SECTION 1704 OF THE IBC, SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER UNLESS WAIVED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS. ALL TESTING AND INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER OF RECORD FOR REVIEW. ITEMS REQUIRING SPECIAL INSPECTION AND QUALITY ASSURANCE ARE:
- SOILS PER IBC SECTION 1704.7
  - SPECIAL INSPECTION SHALL BE PROVIDED PRIOR TO POURING CONCRETE FOOTINGS.
    - CONCRETE PLACEMENTS PER IBC SECTION 1704.4
    - CONTINUOUS SPECIAL INSPECTION SHALL BE PROVIDED
    - CYLINDERS, SLUMP AND AIR-ENTRAINMENT TEST SHALL BE PERFORMED FOR EVERY 50 CUBIC YARDS OR EACH DAY'S PRODUCTION IF LESS THAN 50 CUBIC YARDS. TEST SHALL BE PERFORMED IN ACCORDANCE WITH ASTM C31 AND C39.
  - A-BOLTS INSTALLED IN CONCRETE SECTION 1704.4
  - ALL A-BOLTS SHALL BE INSPECTED PRIOR TO AND DURING CONCRETE PLACEMENT.
  - CONCRETE REINFORCING STEEL PLACEMENT IBC SECTION 1704.4
  - REINFORCING SHALL BE INSPECTED PRIOR TO CONCRETE PLACEMENT.
  - EPOXY ANCHORS IBC SECTION 1701.3.13
  - SPECIAL INSPECTIONS SHALL VERIFY ALL DRILLED HOLES SIZE AND DEPTH PRIOR TO INSTALLATION OF EPOXY AND ANCHOR ROD.
  - STRUCTURAL WOOD SHEAR WALLS & DIAPHRAGHS IBC SECTION 1704.6, 1707.3 & 1706.10.

THE SPECIAL INSPECTIONS ARE REQUIRED BY THE IBC CODE SECTION 1704.

DESIGN LOADS & CRITERIA		
DESIGN CODES	BUILDING CODE	IBC 2009 ASCE 7-05
	REINFORCED CONCRETE	ACI 318-05
	WOOD FRAMING	NDS 2005
ROOF	DEAD LOAD	20 P.S.F.
	ROOF SNOW LOAD (VALUES SHOWN DO NOT INCLUDE DRIFT, OR UNBALANCED LOADS.)	P <sub>s</sub> = 107 P.S.F.
		C <sub>s</sub> = 0.9
	SNOW EXPOSURE FACTOR (ASCE 7-05 TABLE 7.2)	C <sub>e</sub> = 0.9
	SNOW THERMAL FACTOR (ASCE 7-05 TABLE 7.3)	C <sub>t</sub> = 1.0
	SNOW IMPORTANCE FACTOR (ASCE 7-05 TABLE 7.4)	I <sub>s</sub> = 1.0
	LIVE LOAD	20 P.S.F.
FLOOR	DEAD LOAD	20 P.S.F.
	LIVE LOAD	50 P.S.F.

WOOD CONSTRUCTION MATERIALS

APPLICATION	SPECIES AND GRADE	DESIGN VALUES <sup>1</sup> - P.S.I.						
		F <sub>b</sub>	F <sub>t</sub>	F <sub>v</sub>	F <sub>c</sub> ⊥	F <sub>c</sub>	E x 10 <sup>6</sup>	
DIMENSION LUMBER	#2	DOUGLAS FIR LARCH	900	575	180	625	1300	1.6
	#1	DOUGLAS FIR LARCH	1000	675	180	625	1500	1.7
LAMINATED VENEER LUMBER (STRUCT. COMP. LUMBER) (LVL)	ALL BEAMS		2600	-	285	700	2380	1.7
PARALLEL STRAND LUMBER (PSL)	ALL BEAMS		2900	2025	290	750	2900	2.0
LAMINATED STRAND LUMBER (LSL)	1 1/2" UP TO 7 1/4"		2720	-	285	490	3000	1.7
GLUE LAMINATED BEAMS	ALL BEAMS	ALLOWABLE STRESSES - P.S.I.						
		F <sub>b</sub> TENSION ZONE	F <sub>t</sub> COMPRESSION ZONE	F <sub>v</sub>	F <sub>c</sub> TENSION ZONE	F <sub>c</sub> COMPRESSION ZONE	E x 10 <sup>6</sup>	
			2400	2400	190	650	650	1.8

MARKS AND ABBREVIATIONS

AD	ANCHOR BOLT	JST	JOIST
ACI	AMERICAN CONCRETE INSTITUTE	K	KIP = 1000 POUNDS
ADJ	ADJACENT	KLF	KIPS PER LINEAL FOOT
ASCC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	KSF	KIPS PER SQUARE FOOT
ALT	ALTERNATE		
APA	AMERICAN PLYWOOD ASSOCIATION	LBS	POUNDS
ARCH	ARCHITECT	LF	LINEAL FOOT
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	LL	LIVE LOAD
AWSA	AMERICAN WELDING SOCIETY	LVL	LAMINATED VENEER LUMBER
BF-X	BRACED FRAME MARK	MAS	MASONRY
BLDG	BUILDING	MAX	MAXIMUM
BLM	BELOW	MCJ	MASONRY CONTROL JOINT
BM	BEAM	MC-X	MASONRY COLUMN MARK
BOT	BOTTOM	MCH	MECHANICAL
BRG	BRACING	MF-X	MOMENT FRAME
BTWN	BETWEEN	MIN	MINIMUM
		MISC	MISCELLANEOUS
CB-X	CONCRETE BEAM MARK	ML-X	MASONRY LINTEL MARK
CC-X	CONCRETE COLUMN MARK	MP-X	MASONRY PIER MARK
CGB-X	CONCRETE GRADE BEAM MARK	MM-X	MASONRY MALL MARK
C.J.	CONST. OR CONTROL JOINT	NTS	NOT TO SCALE
CL-X	CONCRETE LINTEL MARK		
CMU	CONCRETE MASONRY UNIT	O.C.	ON CENTER
COL	COLUMN	O.F.	OUTSIDE FACE
CNC	CONCRETE	OPP	OPPOSITE
CONT	CONTINUOUS		
CP-X	CONCRETE PIER MARK	PL	PLATE
CRM-X	CONCRETE RETAINING WALL MARK	PLF	POUNDS PER LINEAL FOOT
CSM-X	CONCRETE SHEAR WALL MARK	PSF	POUNDS PER SQUARE FOOT
CM-X	CONCRETE MALL MARK	PSI	POUNDS PER SQUARE INCH
		PSL	PARALLEL BEAM
DBA	DEFORMED BAR ANCHOR		
DBE	DECK BEARING ELEVATION	REINF	REINFORCING
DBL	DOUBLE	REQ'D	REQUIRED
DET	DETAIL	R.D.	ROOF DRAIN
DIA	DIAMETER		
DIM	DIMENSION	SAD	SEE ARCHITECTURAL DRAWINGS
DL	DEAD LOAD	SBP-X	STEEL BASE PLATE
DWG	DRAWING	SC-X	STEEL COLUMN MARK
DNL	DONEL	SCP-X	STEEL CAP PLATE
		SER	STRUCTURAL ENGINEER OF RECORD
E	EXISTING	SHT	SHEET
EA	EACH FACE	SI	SPECIAL INSPECTION
E.F.	EXPANSION JOINT	SH	SIMILAR
E.L.	EARTH QUAKE LOAD	SIJ	STEEL JOIST INSTITUTE
ELEV	ELEVATION	SL	SLAB ON GRADE
EQ	EQUAL	SOG	SQUARE
E.M.	EACH WAY	SO	SQUARE
EXP	EXPANSION	STAG	STAGGERED
EXT	EXTERIOR	STD	STANDARD
		STIFF	STIFFENER
FC-X	FOOTING CONTINUOUS MARK	STL	STEEL
FND	FOUNDATION	STR	STRUCTURAL
FLOOR	FLOOR	STDS	SELF TAPPING SELF DRILLING SCREWS
FR-X	FRAT FOOTING MARK	SW-X	SHEAR WALL MARK
FR-X	RECTANGULAR FOOTING MARK		
FS-X	SQUARE FOOTING MARK	TB	TOP AND BOTTOM
FTG	FOOTING	TEMP	TEMPERATURE
FTS-X	THICKENED SLAB FOOTING MARK	THK	THICKNESS
		T.O.	TOP OF
		TOC	TOP OF CONCRETE
		TOD	TOP OF DECK
		TOF	TOP OF FOOTING
		TOM	TOP OF WALL
		TYP	TYPICAL
		UNO	UNLESS NOTED OTHERWISE
		VERT	VERTICAL
		VIF	VERIFY IN FIELD
		W/	WITH
		WD-X	WOOD DIAPHRAGH MARK
		WL	WINDLOAD
		WT	WEIGHT
		WFF	WELDED WIRE FABRIC
		WWPA	WESTERN WOODS PROJECT ASSOCIATION



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**SPECIAL INSPECTION AND TESTING UNDER THE PROVISIONS OF IBC 1704 AND FOR MISCELLANEOUS AREAS**

Indicate required Special inspections for project by checking the appropriate boxes and provide specific instructions as to the inspection requirements and the expectations of the architect, engineer and owner:

**FABRICATORS (IBC 1704.2)**  
 Approved Fabricator Fabricators Name: \_\_\_\_\_  
 Unapproved Fabricator Fabricators Name: \_\_\_\_\_  
 In-plant inspections  Steel Construction  Welding  Details

**STEEL (IBC 1704.3)**  
 Item Detailed Instructions and Frequencies  
 High Strength Bolting (1704.3.3)  Continuous  Periodic  
 WELDING (1704.3.1)  
 Details (1704.3.2)  
 Complete & partial penetration groove welds  Continuous  Periodic  
 Multipass fillet welds  Continuous  Periodic  
 Single-pass fillet welds > 5/16"  Continuous  Periodic  
 Single-pass fillet welds ≤ 5/16"  Continuous  Periodic  
 Floor & roof deck welds  Continuous  Periodic  
 REINFORCEMENT STEEL  Continuous  
 Verification of weldability  Continuous  Periodic  
 Shear wall and shear reinforcement  Continuous  Periodic  
 Other reinforcement  Continuous  Periodic  
 Steel frame joint details  Continuous  Periodic

**CONCRETE CONSTRUCTION (IBC 1704.4)**  
 Item Detailed Instructions and Frequencies  
 Materials (1704.4.1)  Continuous  Periodic  
 Steel placement  Continuous  Periodic  
 Steel welding  Continuous  Periodic  
 Bolts prior & during placement  Continuous  Periodic  
 Use of required design mix  Continuous  Periodic  
 Concrete sampling for strength test, slump, air content, and temperature of concrete  Continuous  Periodic  
 Concrete & shotcrete placement  Continuous  Periodic  
 Curing temperature and techniques  Continuous  Periodic  
 Pre-stressed concrete  Continuous  Periodic  
 Pre-cast concrete  Continuous  Periodic  
 Post-tensioned concrete  Continuous  Periodic  
 Form work  Continuous  Periodic

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Installation  Continuous  Periodic

**Special inspection for seismic resistance (IBC 1707)**  
 Item Detailed Instructions and Frequencies  
 Structural Steel (1707.2)  Continuous  Periodic  
 Structural Wood (1707.3)  Continuous  Periodic  
 Cold-formed steel framing (1707.4)  Continuous  Periodic  
 Pier foundations (1707.5)  Continuous  Periodic  
 Storage racks & access floors (1707.6)  Continuous  Periodic  
 Architectural components (1707.7)  Continuous  Periodic  
 Mechanical & electrical items (1707.8)  Continuous  Periodic  
 Designated systems verification (1707.9)  Continuous  Periodic  
 Seismic isolation systems (1707.10)  Continuous  Periodic

**MISCELLANEOUS AREAS** Detailed Instructions and Frequencies  
 These inspections are recommended by the Architect/Engineer and approved by DFCM.  
 Suspended Ceiling Grid Clips  Continuous  Periodic  
 Suspended Ceiling wire spacing (Seismic)  Continuous  Periodic  
 Soils backfill (specify locations and frequency)  Continuous  Periodic  
 Soils for curb and gutter (specify locations and frequency)  Continuous  Periodic  
 Soils for parking lots (specify locations and frequency)  Continuous  Periodic  
 Soils for utility trench backfill  Continuous  Periodic  
 Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency)  Continuous  Periodic  
 Reinforcement for interior slab on grade (specify locations and frequency)  Continuous  Periodic  
 Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency)  Continuous  Periodic  
 Concrete testing for interior slab on grade (specify locations and frequency)  Continuous  Periodic  
 Masonry Veneer (specify locations and frequency)  Continuous  Periodic  
 Asphalt inspection (specify locations and frequency)  Continuous  Periodic  
 Asphalt testing (specify locations and frequency)  Continuous  Periodic  
 Inspection of seismic resistance (specify locations and frequency)  Continuous  Periodic  
 Steam and water line welding (specify locations and frequency)  Continuous  Periodic  
 Seismic supports for duct work and sealing of joints for duct work  Continuous  Periodic

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**MASONRY CONSTRUCTION (IBC 1704.5)**  
 Item Detailed Instructions and Frequencies  
 As masonry construction begins:  
 Site prepared mortar  Continuous  Periodic  
 Construction of mortar joints  Continuous  Periodic  
 Location of reinforcement, connectors, pre-stressing tendons and anchorages  Continuous  Periodic  
 Pre-stressing technique  Continuous  Periodic  
 Grade and size of pre-stressing tendons and anchorages  Continuous  Periodic  
**Inspection program verify:**  
 Size and location of structural elements  Continuous  Periodic  
 Type, size and location of anchors  Continuous  Periodic  
 Size, grade and type of reinforcement  Continuous  Periodic  
 Welding of reinforcement  Continuous  Periodic  
 Cold and hot weather protection  Continuous  Periodic  
 Application and measurement of pre-stressing force  Continuous  Periodic  
**Prior to grouting verify**  
 Clean grout space  Continuous  Periodic  
 Placement of reinforcement  Continuous  Periodic  
 Grout mix  Continuous  Periodic  
 Mortar joints  Continuous  Periodic  
 Grout placement  Continuous  Periodic  
 Grout and mortar specimens and prisms  Continuous  Periodic  
 Construction and submittal compliance verification  Continuous  Periodic  
 Empirical masonry – Cat. I-III (1708.1.1)  Continuous  Periodic  
 Empirical masonry – Cat. IV (1708.1.1)  Continuous  Periodic  
 Engineered masonry – Cat. I-III (1708.1.1)  Continuous  Periodic  
 Engineered masonry – Cat. IV (1708.1.1)  Continuous  Periodic  
 Engineering & pre-stressing steel (1708.3)  Continuous  Periodic  
 Structural steel (1708.4)  Continuous  Periodic  
 Qualification of mechanical & electrical equipment (1708.5)  Continuous  Periodic  
 Seismically isolated structures (1708.6)  Continuous  Periodic  
 Testing for seismic resistance is  Continuous  Periodic

**WOOD CONSTRUCTION (IBC 1704.6)**  
 Item Detailed Instructions and Frequencies  
 Prefabricated elements & assembly  Continuous  Periodic

Page 2 of 5

Seismic supports for electrical raceways, cable trays and lights  Continuous  Periodic  
 Seismic supports for plumbing lines including gas, water and steam and condensation  Continuous  Periodic  
 Seismic bracing for mechanical units both on slab and suspended  Continuous  Periodic  
 Continuous  Periodic

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

Updated October 8, 2009

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**SOILS CONSTRUCTION (IBC 1704.7)**  
 Item Detailed Instructions and Frequencies  
 Site preparation  Continuous  Periodic Soils Engineer shall evaluate soils under footings prior to footing placement per the General Structural Notes.  
 Structural fill material  Continuous  Periodic  
 Structural fill lift thickness  Continuous  Periodic  
 Structural fill soil densities  Continuous  Periodic  
 Backfill soils materials  Continuous  Periodic  
 Backfill soil densities  Continuous  Periodic

**PILE FOUNDATIONS (IBC 1704.8)**  
 Item Detailed Instructions and Frequencies  
 Observe driving operation and reporting  Continuous  Periodic  
 Verify placement & installation data  Continuous  Periodic

**PIER FOUNDATIONS (IBC 1704.9)**  
 Item Detailed Instructions and Frequencies  
 Observe drilling operation and reporting  Continuous  Periodic  
 Verify placement & installation data  Continuous  Periodic

**SPRAYED FIRE-RESISTANT MATERIALS (IBC 1704.10)**  
 Item Detailed Instructions and Frequencies  
 Structural member surface conditions  Continuous  Periodic  
 Material application  Continuous  Periodic  
 Material thickness  Continuous  Periodic  
 Material density  Continuous  Periodic  
 Bonding strength  Continuous  Periodic

**MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (IBC 1704.11)**  
 Item Detailed Instructions and Frequencies  
 Material and installation  Continuous  Periodic

**EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) (IBC 1704.12)**  
 Item Detailed Instructions and Frequencies  
 Material and installation  Continuous  Periodic

**ALTERNATIVE CONSTRUCTION METHODS OR MATERIALS (IBC 1704.13)**  
 Item Detailed Instructions and Frequencies  
 Material and installation  Continuous  Periodic

**EPOXY (IBC 1704.13)**  
 Item Detailed Instructions and Frequencies  
 Material and installation (specify locations)  Continuous  Periodic

**SMOKE CONTROL (IBC 1704.14)**  
 Item Detailed Instructions and Frequencies

Page 3 of 5

MARK DATE DESCRIPTION  
 ISSUE TYPE: 100% CD DRAWINGS  
 ISSUE DATE: 9/1/10  
 DFCM PROJECT NO: 10115520  
 CAD PROJECT NO: 10045  
 CAD DWG FILE: S001  
 DRAWN BY: STAFF  
 CHK'D BY: DMF  
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 SHEET TITLE  
 DFCM SPECIAL INSPECTION FORMS  
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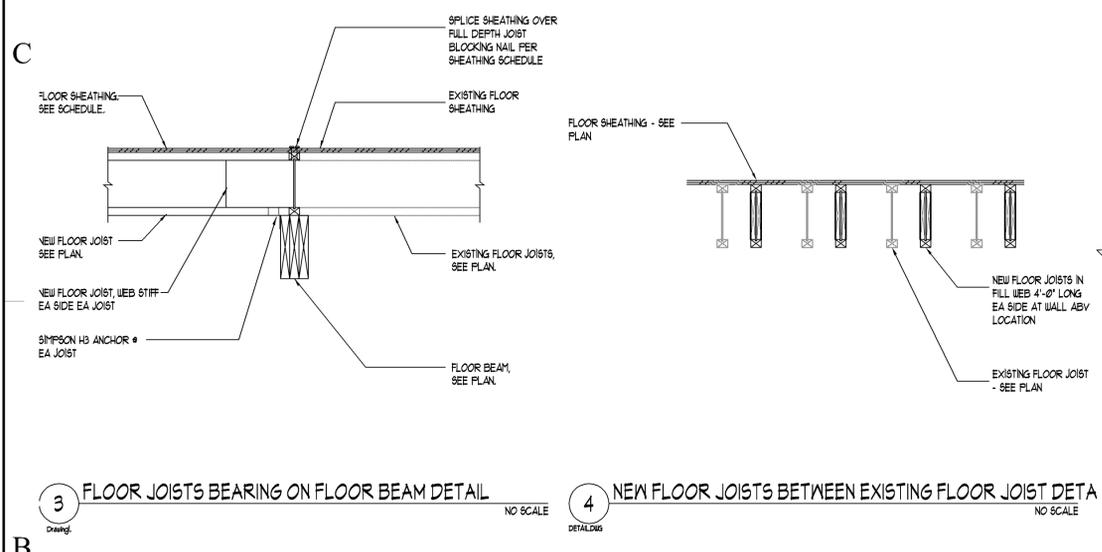
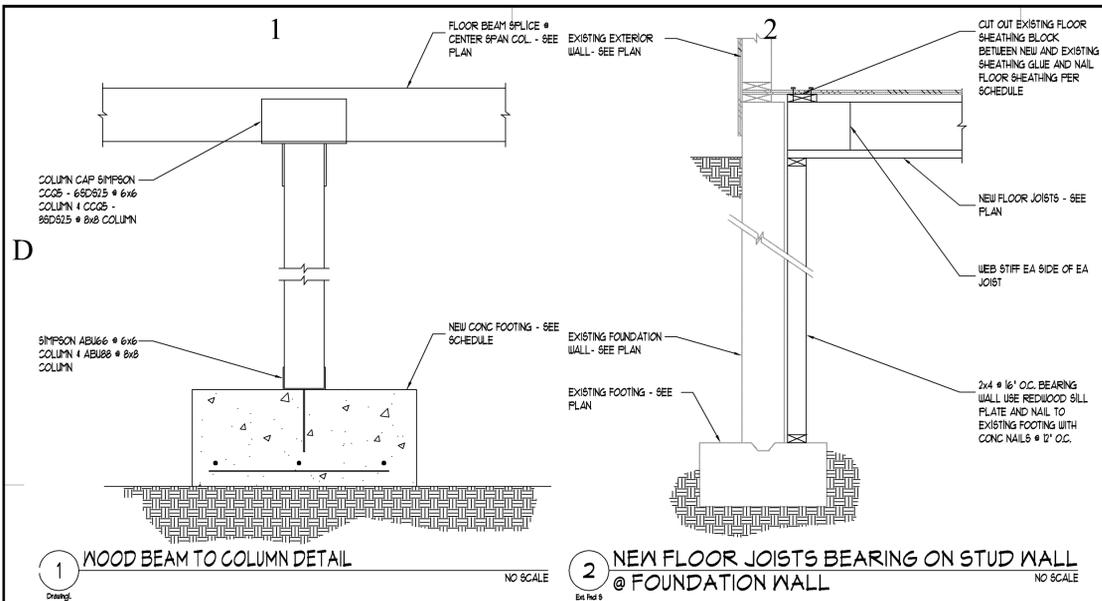
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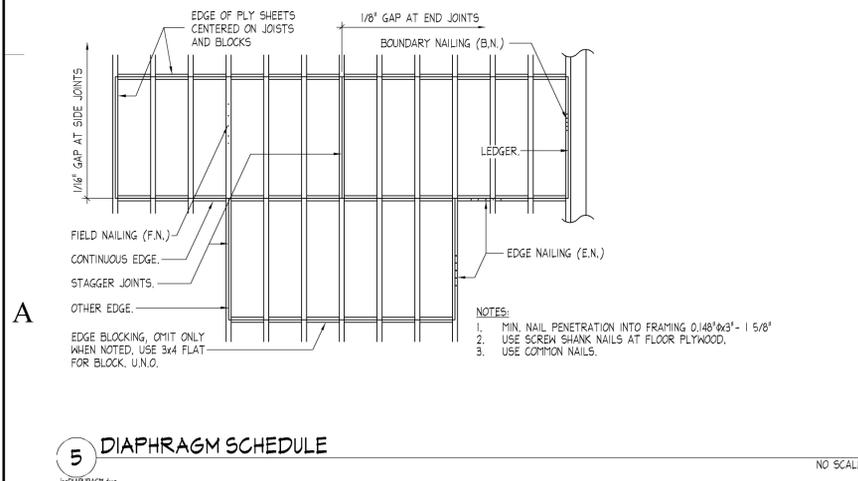
**PROJECT TITLE:**  
 HARDWARE RANCH VISITORS CENTER SITE AND HVAC IMPROVEMENTS  
 HYRUM, UTAH

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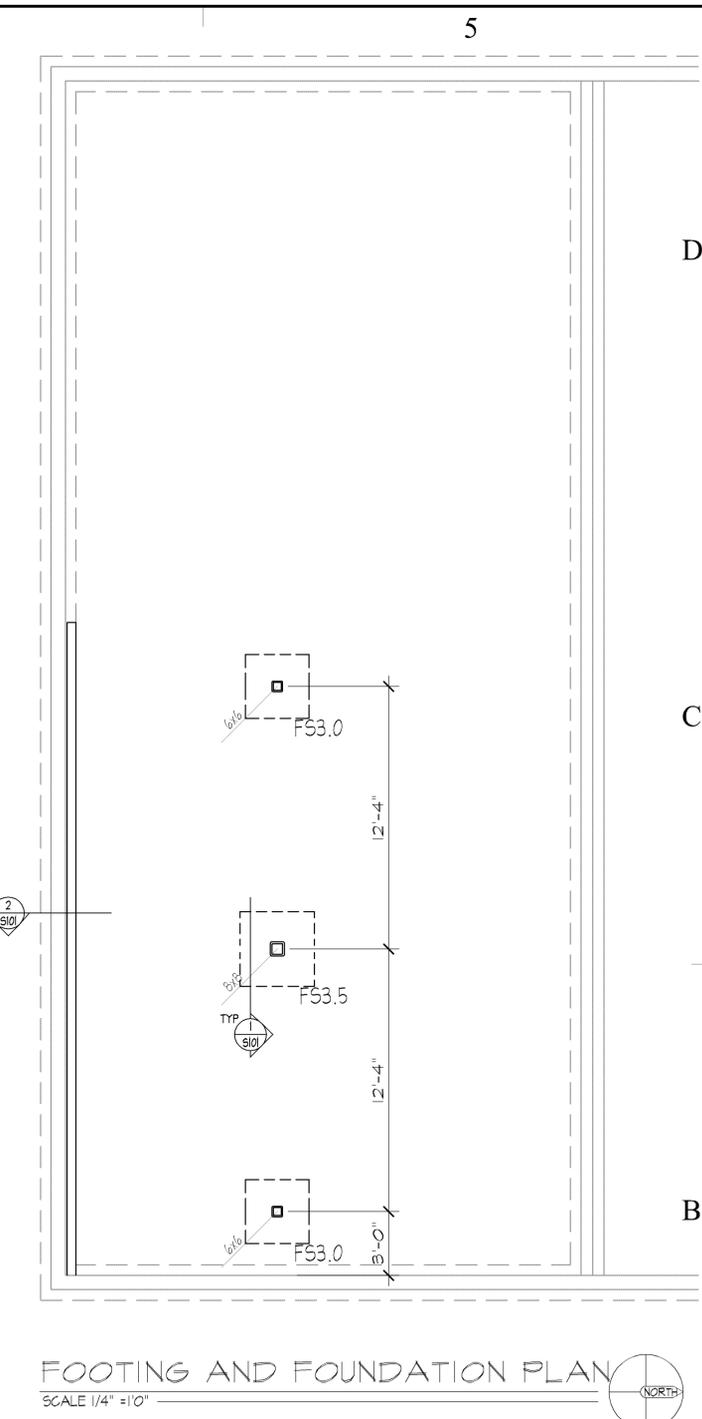
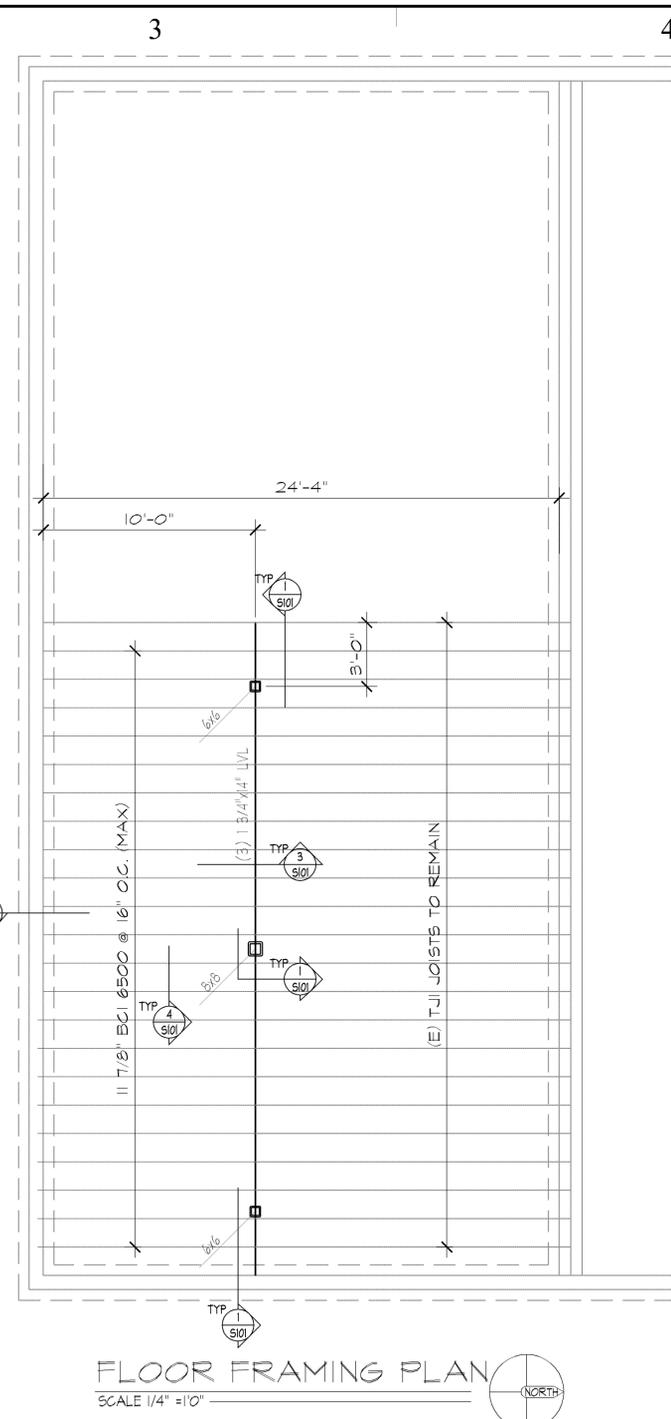
LOCATION	PLYWOOD	NAIL SIZE	EDGE NAIL	FIELD NAIL	BOUNDARY NAIL	EDGE BLOCK
FLAT FLOOR	19/32" T & G OSB	0.148" x 3"	4" o.c.	12" o.c.	4" o.c.	YES 2x FLAT



**6 CONCRETE FOOTING SCHEDULE**  
NO SCALE  
FIS SCHED 13 PIP-3.0 PFD100

MARK	WIDTH	LENGTH	THICKNESS	CROSSWISE REINFORCING			LENGTHWISE REINFORCING			REMARKS	
				NO.	SIZE	LENGTH SPACE	NO.	SIZE	LENGTH SPACE		
F53.0	3'-0"	3'-0"	12"	3	#5	2'-6"	15'	3	#5	2'-6"	15'
F53.5	3'-6"	3'-6"	12"	3	#5	3'-0"	18'	3	#5	3'-0"	18'

NOTES:  
1. MIN. NAIL PENETRATION INTO FRAMING 0.148" x 3" - 1 5/8"  
2. USE SCREW SHANK NAILS AT FLOOR PLYWOOD.  
3. USE COMMON NAILS.





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**HARDWARE RANCH VISITORS CENTER SITE AND HVAC IMPROVEMENTS**

**HYRUM, UTAH**

MARK	DATE	DESCRIPTION

ISSUE TYPE: **100% CD DRAWINGS**

ISSUE DATE: **9/13/10**

DFCM PROJECT NO: **10115520**

CAD PROJECT NO: **0159**

CAD DWG FILE: **CD100**

DRAWN BY: **STAFF**

CHK'D BY: **NDC**

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SHEET TITLE

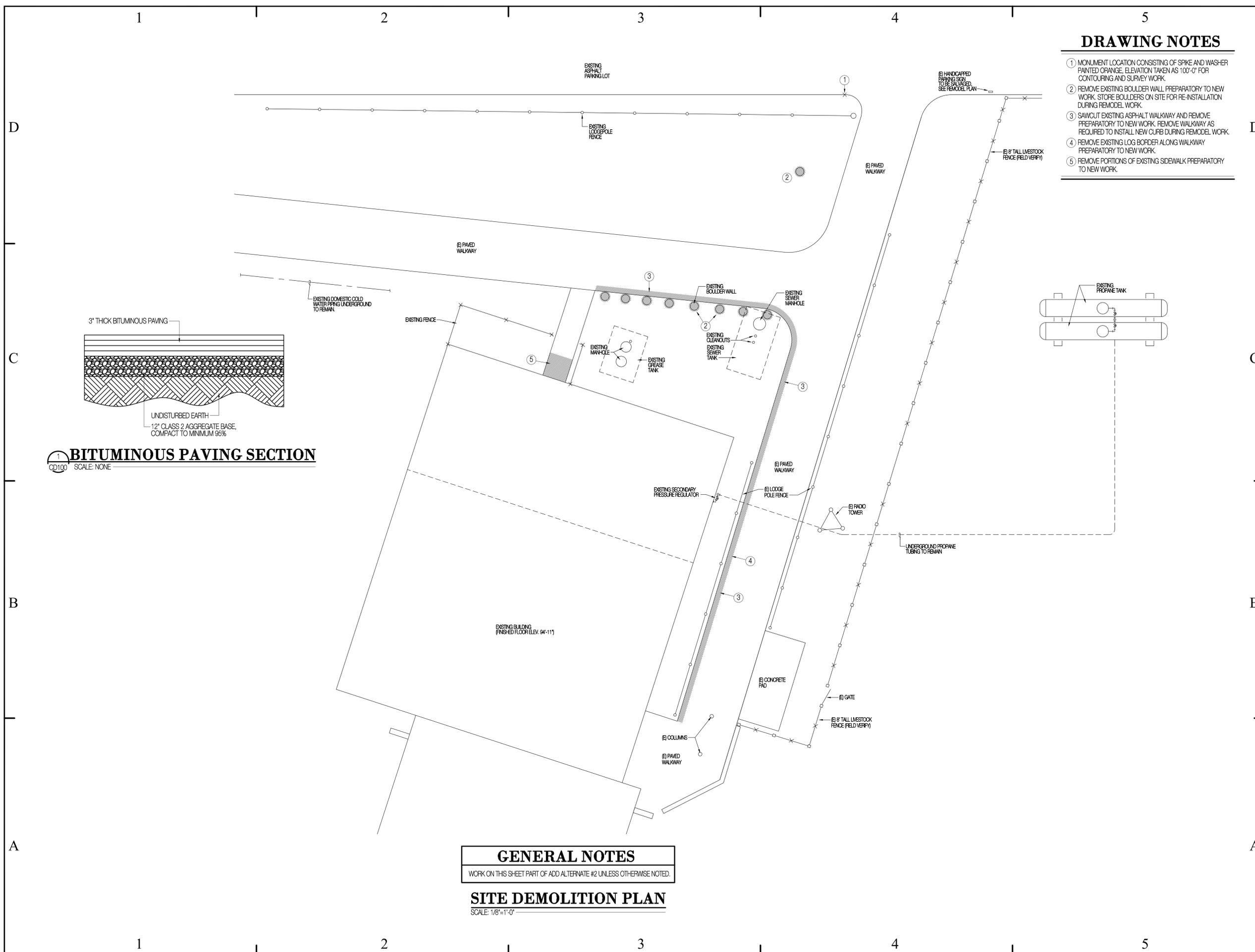
**SITE DEMOLITION PLAN**

SHEET NUMBER

**CD100**

**DRAWING NOTES**

- ① MONUMENT LOCATION CONSISTING OF SPIKE AND WASHER PAINTED ORANGE, ELEVATION TAKEN AS 100'-0" FOR CONTOURING AND SURVEY WORK.
- ② REMOVE EXISTING BOULDER WALL PREPARATORY TO NEW WORK. STORE BOULDERS ON SITE FOR RE-INSTALLATION DURING REMODEL WORK.
- ③ SAWCUT EXISTING ASPHALT WALKWAY AND REMOVE PREPARATORY TO NEW WORK. REMOVE WALKWAY AS REQUIRED TO INSTALL NEW CURB DURING REMODEL WORK.
- ④ REMOVE EXISTING LOG BORDER ALONG WALKWAY PREPARATORY TO NEW WORK.
- ⑤ REMOVE PORTIONS OF EXISTING SIDEWALK PREPARATORY TO NEW WORK.



**GENERAL NOTES**

WORK ON THIS SHEET PART OF ADD ALTERNATE #2 UNLESS OTHERWISE NOTED.

**SITE DEMOLITION PLAN**

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

**BITUMINOUS PAVING SECTION**  
CD100 SCALE: NONE









