

**GENERAL NOTES**

- STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE PROVISIONS OF THE 1997 EDITION OF THE UNIFORM BUILDING CODE.
- DESIGN LIVE LOADS:
  - FLOOR.....50 PSF
  - MECHANICAL.....150 PSF
  - ROOF.....20 PSF
 DESIGN LIVE LOADS HAVE BEEN REDUCED IN ACCORDANCE WITH THE BUILDING CODE.
- DESIGN WIND LOADS:
  - BASIC WIND SPEED.....70 MPH
  - EXPOSURE FACTOR.....B
  - IMPORTANCE FACTOR.....1.00
- PRINCIPAL OPENINGS ARE INDICATED ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, BLOCKOUTS, INSERTS, CURBS, OPENINGS AND SLAB DEPRESSIONS NOT SHOWN.
- CONTRACTOR SHALL COMPILE STRUCTURAL AND ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.
- CONTRACTOR SHALL INSURE THAT CONSTRUCTION MATERIALS WHOSE WEIGHT EXCEEDS THE DESIGN LIVE LOADS INDICATED ON THE STRUCTURAL DRAWINGS ARE NOT STORED ON STRUCTURALLY SUPPORTED ROOF FRAMING.
- THE STRUCTURAL DRAWINGS SHALL NOT BE SCALED FOR DETERMINATION OF QUANTITY, LENGTH OR FIT OF MATERIALS.
- THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHODS OF CONSTRUCTION UNLESS SO STATED OR NOTED. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE WORKMEN AND OTHER PERSONS DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING OF ALL STRUCTURAL WORK AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS IN THE STRUCTURE.
- LOADINGS FOR MECHANICAL EQUIPMENT ARE BASED ON THE UNITS SHOWN ON THE MECHANICAL DRAWINGS. ANY CHANGES IN TYPE, SIZE OR NUMBER OF UNITS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO INSTALLATION OF EQUIPMENT.

**FOUNDATION NOTES**

- THE FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT NUMBER 42-1387-98 PREPARED BY HBC ENGINEERING, INC. DATED APRIL 6, 1998.
- THE FOUNDATION DESIGN IS BASED ON A POTENTIAL VERTICAL RISE, P.V.R. OF ONE INCH OR LESS. IF THIS VALUE IS NOT ACCEPTABLE TO THE OWNER OR TENANTS, THE FOUNDATION DESIGN MUST BE REVISED.
- THE FOUNDATION SHALL CONSIST OF AUGER EXCAVATED STRAIGHT SHAFT CONCRETE PIERS. REFER TO TYPICAL PIER DETAIL FOR BEARING STRATA. PIERS HAVE BEEN PROPORTIONED FOR THE FOLLOWING:
  - END BEARING.....40,000 PSF
  - SKIN FRICTION (COMPRESSION).....6,000 PSF
 DUE TO THE PRESENCE OF GROUNDWATER, TEMPORARY PIER CASINGS MAY BE REQUIRED.
- THE BUILDING SLAB ON GRADE SHALL BE PLACED ON A SIX MIL VAPOR BARRIER OVER A FOUR INCH LAYER OF MOIST COARSE SAND OVER A MINIMUM OF EIGHTEEN (18) INCHES OF SELECT FILL OVER THREE (3) FEET OF MOISTURE CONDITIONED SITE CLAYS AS INDICATED IN THE GEOTECHNICAL REPORT.
- CORRUGATED PAPER FORMS, SUPPLIED BY SUREVOID PRODUCTS, INC. OR APPROVED SUBSTITUTE, SHALL BE USED TO PROVIDE A NORMAL FOUR (4) INCH VOID BENEATH ALL GRADE BEAMS. PROVIDE A CONTINUOUS SOIL RETAINER EACH SIDE OF GRADE BEAM. ALL GRADE BEAM SIDES SHALL BE FORMED. EARTH-TRENCHES ARE NOT ACCEPTABLE.
- NOTIFY ENGINEER AND TESTING LABORATORY FORTY-EIGHT HOURS PRIOR TO PLACING FOUNDATION CONCRETE.
- INFORMATION ABOVE IS PRESENTED ONLY AS A SUMMARY OF THE GEOTECHNICAL REPORT. CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND COMPLYING WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT.

**STRUCTURAL CONCRETE NOTES**

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 AND ACI 318. ALL CONCRETE SHALL BE LABORATORY DESIGNED AND CONTROLLED.
- CONCRETE IN THE FOLLOWING AREAS SHALL HAVE SAND AND GRAVEL OR CRUSHED STONE COARSE AGGREGATES AND CORRESPONDING 28-DAY COMPRESSIVE STRENGTH AS FOLLOWS:
  - PIERS.....3,000 PSI
  - GRADE BEAMS.....3,000 PSI
  - SLAB-ON-GRADE.....3,000 PSI
- CONCRETE PROTECTION FOR STEEL REINFORCEMENT SHALL BE AS FOLLOWS:
  - ALL CONCRETE PLACED AGAINST SOIL.....3"
  - SLABS ON GRADE.....AT SLAB MID-DEPTH
  - GRADE BEAMS.....3" BOTTOM, 2" SIDES, 1 1/2" TOP
 SEE ACI 318, SECTION 7.7 FOR CONDITIONS NOT INDICATED.
- LOCATE JOINTS TO LEAST IMPAIR STRENGTH AND APPEARANCE OF STRUCTURE. LOCATE HORIZONTAL JOINTS IN CONCRETE ONLY WHERE THEY NORMALLY OCCUR OR WHERE INDICATED ON PLAN. LOCATE VERTICAL JOINTS IN THE MIDDLE THIRD OF SPAN.
- ROUGHEN SURFACE OF HORIZONTAL OR NEARLY HORIZONTAL CONSTRUCTION JOINTS SO THAT AGGREGATE SHALL BE EXPOSED UNIFORMLY, LEAVING NO LATANCE, LOOSENED PARTICLES OR DAMAGED CONCRETE.
- THE PLACEMENT OF SLEEVES OR OPENINGS THRU CONCRETE MEMBERS IS PROHIBITED UNLESS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER OF RECORD.
- PROVIDE CHAMFERS AND REVEALS AS INDICATED IN THE ARCHITECTURAL DRAWINGS.

**REINFORCING STEEL NOTES**

- ALL DETAILING OF STEEL REINFORCEMENT AND ACCESSORIES SHALL CONFORM TO ACI COMMITTEE 315 PUBLICATION SP-66, "ACI DETAILING MANUAL."
- DEFORMED BAR REINFORCEMENT SHALL BE DOMESTIC NEW BILLET STEEL IN CONFORMANCE WITH ASTM A615, GRADE 60.

**STRUCTURAL STEEL NOTES**

- ALL STRUCTURAL STEEL DETAILING, FABRICATION AND INSTALLATION SHALL CONFORM TO THE STANDARDS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
- PROVIDE NEW DOMESTIC STRUCTURAL STEEL IN ACCORDANCE WITH THE FOLLOWING:
  - WIDE FLANGE SHAPES.....ASTM A572, GRADE 50
  - CHANNELS, PLATES AND ANGLES.....ASTM A36
  - STEEL TUBE.....ASTM A500, GRADE B
  - STEEL PIPE.....A53 (TYPES E OR S), GRADE B
- CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 3/4 INCH DIAMETER ASTM A325-N BOLTS, UNLESS NOTED OTHERWISE.
- ANCHOR BOLTS SHALL BE UNFINISHED THREADED FASTENERS THAT CONFORM TO ASTM A307, GRADE A BOLTS AND NUTS WITH HEXAGONAL HEADS.
- SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED EXCEPT AS SPECIFICALLY INDICATED IN STRUCTURAL DRAWINGS.
- UNLESS NOTED OTHERWISE, HOT DIP GALVANIZE ALL STRUCTURAL STEEL MEMBERS AND EMBEDS EXPOSED TO WEATHER OR SOIL AND WHERE INDICATED ON DRAWINGS. GALVANIZING SHALL CONFORM TO ASTM A123.
- TOUCH UP FIELD WELDS ON GALVANIZED ITEMS WITH PAINT CONFORMING TO TT--P-641.

**WELDING NOTES**

- WELDING OF STRUCTURAL STEEL SHALL CONFORM TO AWS D1.1. USE E70XX ELECTRODES FOR FIELD AND SHOP WELDS. USE ONLY LOW-HYDROGEN ELECTRODES ON ASTM A242, A514, A572 AND A588 STEEL.
- WELDS NOT INDICATED IN DRAWINGS SHALL BE MINIMUM SIZE CONTINUOUS FILLET WELD IN ACCORDANCE WITH AWS D1.1. FILLET WELDS SHALL BE CONTINUOUS, UNLESS NOTED OTHERWISE.
- PROVIDE FILLET WELDS AT ALL CONTACT JOINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DEVELOP THE ALLOWABLE TENSILE CAPACITY OF THE SMALLER MEMBER AT THE JOINT, UNLESS NOTED OTHERWISE.

**STRUCTURAL WOOD NOTES**

- ALL WOOD FRAMING SHALL BE USED AT 19 PERCENT MAXIMUM MOISTURE CONTENT AND SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
 

MEMBER	MATERIAL	ALLOWABLE STRESSES
2x BEAMS, HEADERS, JOISTS, SILL PLATES	#2 SOUTHERN PINE	Fb = 975 PSI Fv = 90 PSI E = 1,600,000 PSI
LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL)	N/A	Fb = 2,900 PSI Fv = 285 PSI Fc = 2,700 PSI Ft = 1,850 PSI E = 2,000,000 PSI
BEARING PLATES, LEDGERS	#3 SPRUCE-PINE-FIR	Fb = 500 PSI Ft = 250 PSI Fv = 70 PSI Fc perp = 425 PSI E = 1,200,000 PSI
STUDS	STUD GRADE DOUGLAS FIR-LARCH	Fb = 675 PSI Fc = 825 PSI E = 1,400,000 PSI

ALLOWABLE STRESSES ARE UNFACTORED AND ARE BASED ON THE 1994 NATIONAL DESIGN SPECIFICATION, PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

- SILL PLATES AND OTHER MEMBERS EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED FOR MOISTURE RESISTANCE.

**WOOD SHEATHING NOTES**

- ROOF SHEATHING SHALL BE EXPOSURE 1, 19/32" APA RATED SHEATHING WITH A PANEL INDEX OF 24/0. PANELS SHALL BE NAILED WITH 8d NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING THAT IS EXPOSED ON THE UNDERSIDE SHALL BE BONDED WITH EXTERIOR GLUE. PROVIDE STANDARD EDGE CLIPS AT MID-SPAN BETWEEN ALL SUPPORTS.
- EXTERIOR WALL SHEATHING SHALL BE EXPOSURE 1, 15/32" APA RATED SHEATHING WITH A PANEL INDEX OF 16/0. PANELS SHALL BE NAILED WITH 8d NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.

**WOOD ROOF FRAMING NOTES**

- NOTCHES ON THE ENDS OF CONVENTIONAL LUMBER JOISTS SHALL NOT EXCEED ONE FOURTH OF THE JOIST DEPTH. HOLES BORED IN JOISTS SHALL NOT BE WITHIN TWO INCHES OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER OF ANY HOLE SHALL NOT EXCEED ONE THIRD OF THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE SIXTH OF THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. THE GENERAL CONTRACTOR SHALL COORDINATE THESE GUIDELINES WITH OTHER TRADES.
- HOLES AND NOTCHES IN BEAMS AND HEADERS ARE NOT PERMITTED UNLESS VERIFIED IN WRITING BY THE ENGINEER OF RECORD.
- BEAMS COMPRISED OF 2 OR MORE MEMBERS SHALL BE GLUED AND NAILED TOGETHER WITH A MINIMUM OF TWO (2) ROWS OF 16d NAILS AT 12" ON CENTER. BEAMS COMPRISED OF THREE OR MORE MEMBERS SUPPORTING LOAD THROUGH SIDE HANGERS SHALL HAVE ADDITIONAL 1/2" DIAMETER THRU BOLTS AT 18" ON CENTER STAGGERED TOP AND BOTTOM. USE 1/2" PLYWOOD OR MEMBERS OF SAME DEPTH AS REQUIRED TO FLUSH OUT WALL.
- SPLICING OF MEMBERS SHALL NOT BE PERMITTED UNLESS SHOWN ON THE PLANS OR VERIFIED IN WRITING BY THE ENGINEER.
- INSTALL MEMBERS TRUE, PLUMB AND LEVEL AND PROVIDE ADEQUATE TEMPORARY BRACING AND SHORING UNTIL FINAL CONNECTIONS ARE MADE.
- DURING CONSTRUCTION, STOCK PILES OF GYPSUM SHEATHING STORED ON ANY LEVEL ABOVE THE FOUNDATION SHALL NOT EXCEED 16 SHEETS OR TEN INCHES.

**WOOD STUD WALL NOTES**

- PROVIDE AN EQUAL NUMBER OF 2x STUDS AT EACH END OF BUILT-UP BEAMS AS THE NUMBER OF MEMBERS IN THE BEAM. UNLESS NOTED OTHERWISE, PROVIDE 4-2x STUDS AT EACH END OF PSL, LVL OR GL BEAMS. BUILT-UP STUD COLUMNS SHALL BE CONTINUOUS THROUGH EACH FLOOR SYSTEM TO THE FOUNDATION AND SHALL BE NAILED TOGETHER WITH 16d NAILS AT 20" ON CENTER FOR THE FULL STUD HEIGHT.
- DOUBLE PLATES SHALL LAP A MINIMUM OF FOUR (4) FEET. SPLICES SHALL OCCUR AT CENTER OF SUPPORTING STUD.
- BORED HOLES IN 2x4 STUDS SHALL NOT EXCEED 1 3/8" FOR LOAD-BEARING WALLS AND 2 1/8" IN NON-LOAD-BEARING WALLS. BORED HOLES IN 2x6 STUDS SHALL NOT EXCEED 1 1/2" FOR LOAD-BEARING WALLS AND 3 1/4" FOR NON-LOAD-BEARING WALLS. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8" TO THE EDGE OF THE STUD.
- AT EXTERIOR WALL CORNER CONDITIONS, NOT LESS THAN THREE (3) STUDS SHALL BE INSTALLED.
- AT CONTRACTOR'S OPTION, ENGINEERED FINGER-JOINTED STUDS MAY BE USED.

**WOOD CONNECTOR NOTES**

- NAILS, SPIKES, STAPLES, BOLTS, NUTS, WASHERS, ETC. SHALL BE GALVANIZED FOR EXTERIOR OR TREATED WOOD LOCATIONS; PLAIN FINISH FOR INTERIOR LOCATIONS.
- FRAMING CONNECTORS SHALL BE SIMPSON "STRONG-TIE" OR APPROVED SUBSTITUTE AND SHALL BE BUILDING CODE APPROVED FOR THE TYPE OF INSTALLATION INDICATED.
- UNLESS NOTED OTHERWISE, SILL PLATES AT THE BUILDING EXTERIOR SHALL BE FASTENED TO THE FOUNDATION WITH 1/2" DIAMETER GALVANIZED, ASTM A307 ANCHOR BOLTS AT 48" ON CENTER (MINIMUM 2 BOLTS PER PLATE). BOLTS SHALL BE PLACED WITH A MINIMUM OF SIX (6) INCHES OF EMBEDMENT.

**PREFABRICATED WOOD TRUSS NOTES**

- DESIGN TRUSSES IN ACCORDANCE WITH THE "TRUSS PLATE INSTITUTE DESIGN SPECIFICATIONS FOR CONNECTOR PLATES." ALL TRUSSES SHALL BE GRADE STAMPED PER W.C.I.B. RULES.
- THE CONTRACTOR SHALL COMPLY WITH "HANDLING AND INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES" (HIB-91) BY THE TRUSS PLATE INSTITUTE DURING THE INSTALLATION OF FLOOR AND ROOF TRUSSES.
- ROOF TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER TO SUPPORT A TOTAL LOAD OF 40 PSF, COMPOSED OF 20 PSF DEAD LOAD (15 PSF ON THE TOP CHORD AND 5 PSF ON THE BOTTOM CHORD) AND 20 PSF LIVE LOAD FOR ALL SPAN CONDITIONS INDICATED ON THE DRAWINGS, UNLESS NOTED OTHERWISE. DEFLECTIONS SHALL BE LIMITED TO L/160 FOR TOTAL LOAD AND L/240 FOR LIVE LOAD ONLY.
- ROOF TRUSSES AND END ANCHORAGES SHALL BE DESIGNED FOR A NET UPLIFT OF 15 PSF.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS PERFORMED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. SHOP DRAWINGS SHALL INCLUDE FRAMING PLANS SHOWING ALL PREFABRICATED MEMBERS WITH MARK NUMBERS FOR EACH MEMBER TYPE.
- PROVIDE ANCHORAGE, ERECTION BRACING, AND PERMANENT BRIDGING AS RECOMMENDED BY THE TRUSS MANUFACTURER.
- TRUSSES SHALL BE DESIGNED TO BEAR ONLY ON BEAMS AND WALLS SPECIFICALLY NOTED AS LOAD BEARING IN THE DRAWINGS.

**NON-LOAD BEARING HEADER SCHEDULE**

SPAN	HEADER
0' TO 6'-0"	2-2x6
6'-0" TO 9'-0"	2-2x8
> 9'-0"	2-2x10

**NOTES:**

- HEADER MATERIAL TO BE #3 S.Y.P., UNLESS NOTED OTHERWISE.
- USE 1/2" PLYWOOD SPACERS BETWEEN 2x MEMBERS.

3 SCHEDULE NO SCALE

**STANDARD NAILING SCHEDULE**

DESCRIPTION	CONNECTION	NAILS
JOIST TO SILL OR GIRDER	TOENAIL	3-8d
BRIDGING TO JOIST	TOENAIL, EACH END	2-8d
1x8 OR LESS SUBFLOOR TO EACH JOIST	FACE NAIL	2-8d
WIDER THAN 1x6 SUBFLOOR TO EACH JOIST	FACE NAIL	3-8d
2x SUBFLOOR TO JOIST OR GIRDER	BLIND AND FACE NAIL	2-16d
SOLE PLATE TO JOIST OR BLOCKING	FACE NAIL	16d @ 16"
TOP PLATE TO STUD	END NAIL	2-16d
STUD TO SOLE PLATE	TOENAIL	4-8d
STUD TO SOLE PLATE (ALTERNATE)	END NAIL	2-16d
DOUBLE STUDS	FACE NAIL	16d @ 24"
DOUBLE TOP PLATES	FACE NAIL	16d @ 16"
TOP PLATES, LAPS AND INTERSECTIONS	FACE NAIL	2-16d
CONTINUOUS HEADER, TWO PIECES	ALONG EACH EDGE	16d @ 16"
CEILING JOISTS TO PLATE	TOENAIL	3-8d
CONTINUOUS HEADER TO STUD	TOENAIL	4-8d
CEILING JOISTS, LAPS OVER PARTITIONS	FACE NAIL	3-16d
CEILING JOISTS TO PARALLEL RAFTERS	FACE NAIL	3-16d
RAFTERS TO PLATE	TOENAIL	3-8d
1x BRACE TO EACH STUD AND PLATE	FACE NAIL	2-8d
1x8 OR LESS SHEATHING TO EACH BEARING	FACE NAIL	2-8d
WIDER THAN 1x8 SHEATHING TO EACH BEARING	FACE NAIL	3-8d
BUILT-UP CORNER STUDS	FACE NAIL	16d @ 24"
BUILT-UP GIRDER AND BEAMS	FACE NAIL	16d @ 12"
2x PLANKS	EACH BEARING	2-16d

NOTE: ABOVE NAILING CONNECTIONS ARE TO BE PROVIDED UNLESS DETAILED OR NOTED OTHERWISE.

1 SCHEDULE NO SCALE

**SHEARWALL SCHEDULE**

MARK	DESCRIPTION
1A	5/8" GYPSUM WALLBOARD NAILED WITH 6d WALLBOARD NAILS 7" O.C. AT ALL SUPPORTS. FASTEN SHEAR WALL TO FOUNDATION WITH 1/2" DIAMETER A.B. AT 48" O.C.
A	5/8" GYPSUM WALLBOARD APPLIED TO BOTH FACES OF STUDS IN ACCORDANCE WITH TYPE 1A. FASTEN SHEAR WALL TO FOUNDATION WITH 1/2" DIAMETER A.B. AT 48" O.C.
1B	5/8" GYPSUM WALLBOARD NAILED WITH 6d WALLBOARD NAILS 4" O.C. AT ALL SUPPORTS. FASTEN SHEAR WALL TO FOUNDATION WITH 1/2" DIAMETER A.B. AT 48" O.C.
B	5/8" GYPSUM WALLBOARD APPLIED TO BOTH FACES OF STUDS IN ACCORDANCE WITH TYPE 1B. FASTEN SHEAR WALL TO FOUNDATION WITH 1/2" DIAMETER A.B. AT 48" O.C.
1C	1/2" PLYWOOD NAILED WITH 10d NAILS 6" O.C. AT EDGES. PROVIDE SOLID BLOCKING AT ALL EDGES. PROVIDE 10d NAILS AT 12" O.C. AT INTERIOR SUPPORTS. FASTEN SHEAR WALL TO FOUNDATION WITH 1/2" DIAMETER A.B. AT 30" O.C.
C	1/2" PLYWOOD APPLIED TO BOTH FACES OF STUDS IN ACCORDANCE WITH TYPE 1C. FASTEN SHEAR WALL TO FOUNDATION WITH 1/2" DIAMETER A.B. AT 14" O.C.

**ALTERNATE SHEARWALL SILL PLATE FASTENERS:**

- FOR SHEARWALL TYPE 1A HILTI X-ZF 72 @ 18" O.C. MAY BE USED AT ALL INTERIOR CONDITIONS.
- FOR SHEARWALL TYPE A HILTI X-ZF 72 @ 14" O.C. MAY BE USED AT ALL INTERIOR CONDITIONS.

4 SCHEDULE NO SCALE

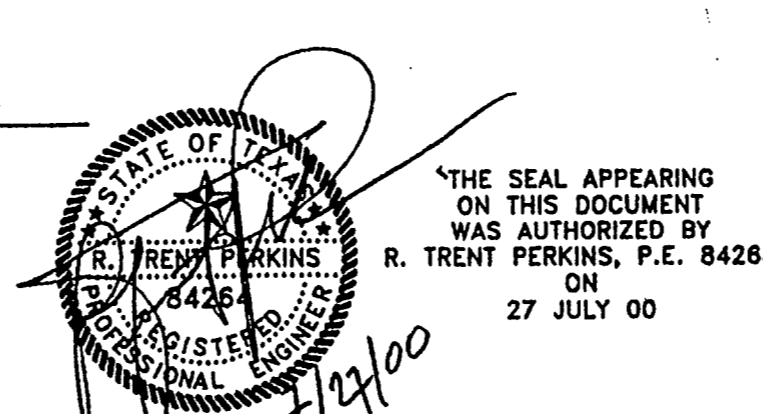
**DOWEL SCHEDULE**

MARK	SIZE	A	B	C
DWL A	#4	2'-6"	1'-0"	-
DWL B	#5	2'-9"	0'-8"	-
DWL C	#4	2'-0"	2'-0"	-
DWL D	#3	2'-0"	0'-8"	-
DWL E	#4	2'-0"	AS REQ'D	-
DWL F	#4	AS REQ'D	0'-8"	-
DWL G	#4	2'-6"	0'-8"	0'-8"

**NOTES:**

- SCHEDULED DOWELS ARE MARKED "DWL" ON THE SECTIONS AND DETAILS.
- DOWEL SPACING TO BE THE SAME AS VERTICAL BEAM OR WALL REINFORCEMENT, UNLESS NOTED OTHERWISE.
- STRAIGHT BARS SHALL BE PLACED WITH ONE HALF OF BAR LENGTH ON EACH SIDE OF COLD JOINT, UNLESS NOTED OTHERWISE.

7 SCHEDULE NO SCALE



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**REINFORCING LAP SPLICE SCHEDULE**

BAR SIZE	LAP	BAR SIZE	LAP
3	1'-6"	8	4'-8"
4	2'-0"	9	5'-4"
5	2'-6"	10	6'-0"
6	3'-0"	11	6'-8"
7	4'-2"		

2 SCHEDULE NO SCALE

**SHEARWALL ANCHOR SCHEDULE**

MARK	DESCRIPTION	MARK	DESCRIPTION
1	CS18	5	HTT16
2	CS16	6	HDBA
3	2-CS16	7	HD10A
4	LTT20B		

**SHEARWALL ANCHORAGE NOTES:**

- PROVIDE A 2-2x MEMBER AT EACH END OF SHEAR WALLS WHERE ANY ANCHOR IS SPECIFIED.
- FASTEN LTT20 ANCHORS TO CONCRETE WITH 'SIMPSON' RFB#6x10.5, OR EQUAL, ANCHOR BOLTS USED IN CONJUNCTION WITH THE 'SIMPSON' ET EPOXY, OR EQUAL ADHESIVE SYSTEM.
- FASTEN HTT16 ANCHORS TO CONCRETE WITH 'SIMPSON' RFB#5x16, OR EQUAL, ANCHOR BOLTS USED IN CONJUNCTION WITH THE 'SIMPSON' ET EPOXY, OR EQUAL ADHESIVE SYSTEM.
- EXPANSION ANCHORS MAY NOT BE USED FOR APPLICATIONS WITHIN 6" OF ANY FREE EDGE OF CONCRETE.
- ANCHORS 4 AND 5 MAY BE REPLACED WITH A 'SIMPSON' HPAHD22 AT EXTERIOR BEAMS.
- ANCHORS WHERE REQUIRED SHALL BE PLACED ON EACH END OF THE DESIGNATED CORRESPONDING WALL.
- HILTI HVA ADHESIVE ANCHOR BOLTS WITH A MINIMUM OF 6 5/8" EMBEDMENT MAY BE USED IN LIEU OF THE ABOVE REQUIRED ANCHOR BOLTS. REFER TO SIMPSON REQUIREMENTS FOR THE BOLT DIAMETER.

5 SCHEDULE NO SCALE