

WOOD FRAMING "BASIC"

- STANDARDS: ALL ROUGH CARPENTRY TO COMPLY WITH "MANUAL OF HOUSE FRAMING" BY NATIONAL FOREST PRODUCTS ASSOC., THE 2009 ICC RESIDENTIAL CODE, AND WITH RECOMMENDATIONS OF AMERICAN PLYWOOD ASSOC.
- STRUCTURAL LUMBER (WALL STUDS, FLOOR CEILING JOISTS, RAFTERS) OF NOMINAL 2" THICKNESS SHALL BE KILN DRIED (MAX. 19% MOISTURE CONTENT) #2 HEA-FIR WITH MIN. F8 1,200.
- ALL WOOD, IN PARTICULAR SILL PLATES, IN CONTACT WITH MASONRY SHALL BE PRESSURE TREATED. ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD TO BE STAINLESS STEEL OR HEAVY HOT DIPPED GALVANIZED.
- PROVIDE TWO (2) FLOOR JOISTS DIRECTLY BELOW PARALLEL WALLS AND PARTITIONS ABOVE. IF WALLS ABOVE ARE CHASES FOR PIPES OR DUCTS, PUT JOISTS EITHER SIDE AND INSTALL SOLID BLOCKING AT 16" O.C. MIN. ALSO, PROVIDE ONE (1) ADDITIONAL JOIST 8" INSIDE OF ROOMS ABOVE TO TAKE FURNITURE AND BOOKCASE LOADS AT ROOM PERIMETERS PARALLEL TO FLOOR FRAMING.
- ALL FLOORS AND ALL CEILING JOISTS SHALL BE "BRIDGED" WITH SOLID BLOCKING, FULL DEPTH, STAGGERED, AS FOLLOWS: SPANS 2 TO 14", PROVIDE 2 ROWS; SPANS 2 TO 06", PROVIDE 1 ROW.
- IF EXISTING DIAGONAL "BRIDGING" IS FOUND, THEN REPLACE WITH SOLID BLOCKING AS DESCRIBED ABOVE.
- ALL RAFTERS TO BE SOLIDLY BLOCKED ALONG THE TOP PLATE OF EXTERIOR WALLS.
- STUDS IN UPPER FLOORS SHALL ALIGN WITH LOWER FLOORS. THIS IS TO ALLOW FOR CONTINUITY OF ANCHORAGE WITH STRAPS FROM FLOOR TO FLOOR.
- WALL SHEATHING & WIND BRACING: ALL WALLS SHALL BE COMPLETELY SHEATHED WITH APA RATED, 4-PLY, 1/2 INCH THICK PLYWOOD. VERTICAL SHEATHING JOINTS SHALL BE FULLY SUPPORTED ON STUDS. NAILING, USING 6D COMMON NAILS, ALL AROUND SHEET PERIMETERS SHALL BE 4" O.C., INTERIOR FIELD NAILING SHALL BE 6" O.C. NOTE: NAILS IN THE PRESSURE TREATED SILL PLATE MUST BE STAINLESS STEEL OR HOT DIPPED GALVANIZED.
- SUB-FLOOR DECKS: SHALL BE ADVANTECK, 3/4", TONGUE & GROOVED, COMPOSITE DECKING. GLUE IN PLACE AND SCREW @ 6" O.C. ALONG ALL SHEET PERIMETERS AND 16" O.C. AT INTERIOR FIELD. ALL JOINTS SHALL BE FULLY SUPPORTED.
- ROOF SHEATHING: SHALL BE EXTERIOR GRADE PLYWOOD, MIN. 1/2" THICK WITH RAFTER SPACING OF 16" O.C. SEE NOTES ABOVE RE: RADIANT BARRIERS. NAIL SAME AS WALL SHEATHING. IN LIEU OF SOLID SUPPORT EDGE BLOCKING, PROVIDE TWO (2) SIMPSON

STRONG-TIE "PSCL" SHEATHING CONTINUITY CLIPS IN EACH RAFTER BAY AT JOINTS BETWEEN SHEATHING.
LUMBER UNDERLAYMENTS SHALL ALL BE CERTIFIED AS FABRICATED WITH EXTERIOR GRADE GLUE.

DESIGN LOADS THE PROJECT HAS BEEN DESIGNED WITH THESE LOADS

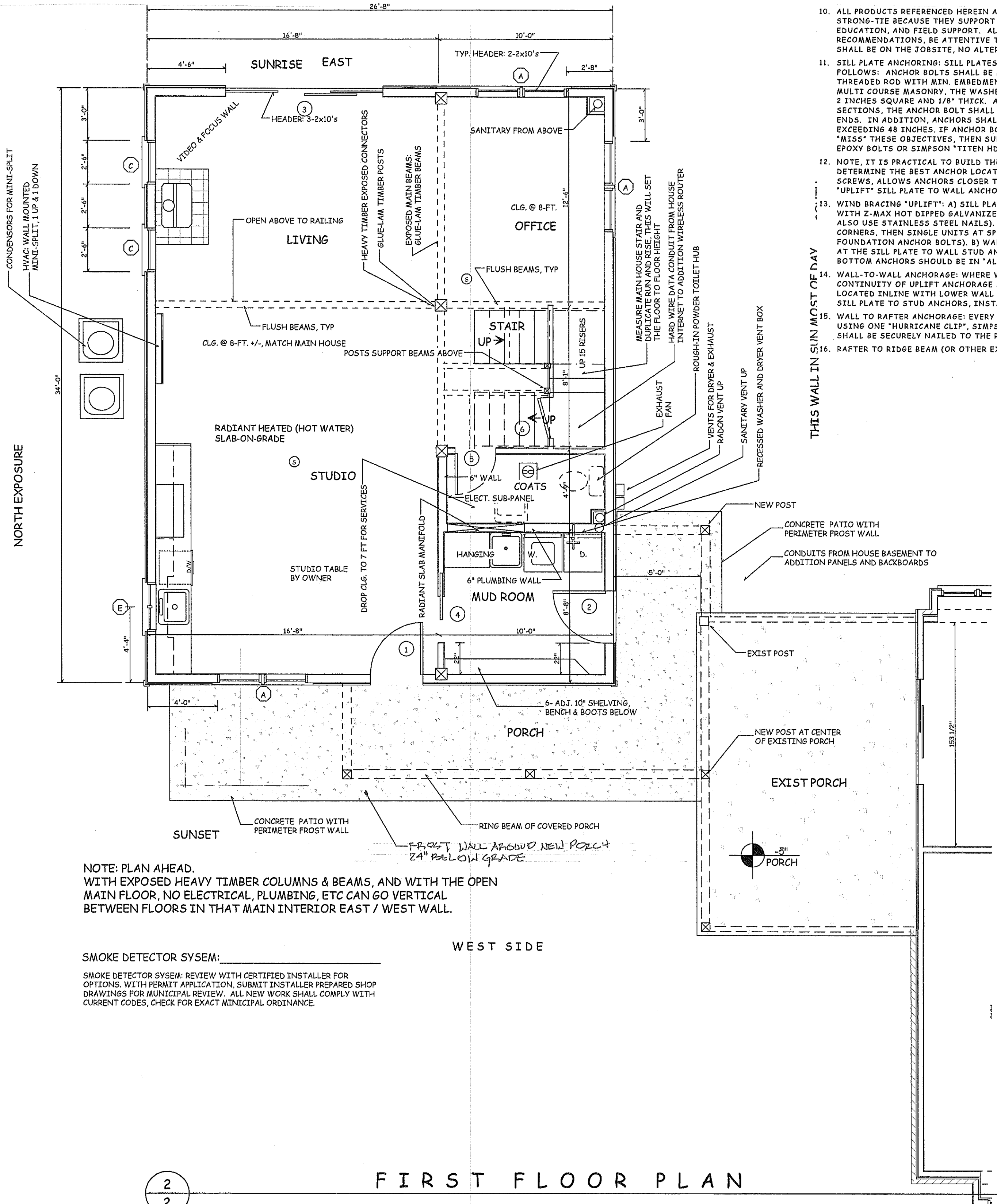
DESIGN LOAD	ROOFS	FLOORS	FLOORS	ATTIC FLOOR	BALCONIES / DECKS
DEAD LOAD (PSF)	20	15	20	10	
LIVE LOAD (PSF)	30	40	30	10	
TOTAL (PSF)	50	55	50	20	

WOOD FRAMING & "CONTINUOUS LOAD PATH" ANCHORAGE

- IN A RENOVATION OR ADDITION MAKE SURE NEW WORK IS ANCHORED TO EXISTING AS BEST MEETS INTENT BELOW. THE CODE UNDERSTANDS THAT THE SCOPE OF NEW WORK MAY NOT REVEAL OR MAY NOT "CURE" ALL EXISTING DEFICIENCIES.
- CODE REFERENCE R301.1 THE CONSTRUCTION OF BUILDING AND STRUCTURES SHALL RESULT IN A SYSTEM THAT PROVIDES A COMPLETE LOAD PATH CAPABLE OF TRANSFERRING ALL LOADS FROM THEIR POINT OF ORIGIN THROUGH THE LOAD-RESISTING ELEMENTS TO THE FOUNDATION.

- THE CONTINUOUS LOAD PATH ANCHORAGE REQUIREMENTS ARE THE ICC BUILDING CODE'S METHOD OF ACHIEVING A MINIMUM, FIELD OBSERVABLE, BUILDING FRAME "STIFFENING" AND "ANCHORAGE" SYSTEM. THE GOAL IS SAFER STRUCTURES, BETTER ABLE TO RESIST LOCAL WIND AND SEISMIC ACTIVITY. THE BASIC CONCEPT USES A CONTINUOUS "LINE" OF BUILDING ELEMENTS, SUCH AS WALL STUDS, AND MECHANICAL ANCHORS LINKING THE ROOF RIDGES TO FOUNDATION WALL FOOTING. IMAGINE THE BUILDING LIKE A BIG TENT, WITH "GUY WIRES" FROM THE ROOF RIDGE TO THE GROUND.
- FOR MOST BUILDINGS, A CONSISTENT RHYTHM OF COMPLETELY LINEAR LINES OF CONNECTIVITY CANNOT BE ACHIEVED BECAUSE THINGS GET IN THE WAY, SUCH AS DOORS AND WINDOWS. HOWEVER, THE CODE DESCRIBES AN "INTENT". IT IS THE CONTRACTOR'S RESPONSIBILITY TO INTERPRET AND MAKE EVERY REASONABLE EFFORT TO ACHIEVE THE GOAL, BY USING THE COMPONENTS DESCRIBED, IN THE QUANTITIES PRESCRIBED, AND IN THE LOCATIONS BEST SUITED.
- WALL AND ROOF SHEATHINGS CREATE CONTINUOUS "DIAPHRAGMS." THESE HELP PREVENT BUILDING RACKING AND TWISTING. USE "APA" RATED MATERIALS. SHEATHING MATERIAL MUST HAVE GOOD QUALITIES TO ABSORB THE REQUIRED NAILING WITHOUT BREAKING, RESIST TEARING, AND HAVE GOOD NAIL RETENTION. INSTALL THE LARGEST POSSIBLE SIZE SHEETS. STAGGER JOINTS, SUPPORT ALL JOINTS PROPERLY, AND NAIL IT WELL.
- CORNERS ARE IMPORTANT. MAKE A STRONG BUILDING BY MAKING STRONG CORNERS. INSTALL ANCHORS AS CLOSE AS POSSIBLE TO BOTH SIDES OF EACH CORNER.
- THE SYSTEMS MECHANICAL PLATES AND CONNECTORS CAN BE INSTALLED ON EITHER THE INSIDE OR OUTSIDE FACE OF THE STUDS. HOWEVER IT MUST BE CONSISTENT THROUGHOUT. (THIS ARCHITECT BELIEVES IT IS BEST ON THE INSIDE FACE OF WOOD STUD WALLS. RAFTER TO TOP PLATE CONNECTIONS ARE MUCH EASIER. USE SAW-ALL TO SLOT PLYWOOD DECKING FOR THE FLOOR TO FLOOR STRAPS, COVER WITH THE INTERIOR GYPSUM BOARD)
- IT ALL LINKS TOGETHER: THE FOUNDATION WALL IS ANCHORED TO THE FOUNDATION FOOTING; THE WALL IS MADE "MONOLITHIC"; THE BOTTOM PLATES ARE ANCHORED TO THE FOUNDATION WALL; THE BOTTOM PLATES ARE THEN ANCHORED TO THE WALL STUD FRAMING ABOVE; UPPER FLOOR WALLS ARE STRAPPED TO LOWER WALLS; THE TOP WALL PLATES ARE ANCHORED TO THE WALL STUD FRAMING BELOW; THE RAFTERS ARE ANCHORED TO THE TOP WALL PLATE, AND FINALLY THE RAFTERS ON BOTH SIDES ARE STRAPPED TOGETHER AT THE TOP OF THE ROOF RIDGE.
- FOR BUILDINGS WITH ROOF AND FLOOR SPANS OF LESS THAN 20 FEET, THIS STARTS WITHIN AS CLOSE AS POSSIBLE TO EXTERIOR CORNERS (BOTH SIDES), AND THEN RE-OCCURS ALONG WALLS AT NOT GREATER THAN 48 INCH INTERVALS.
- ALL PRODUCTS REFERENCED HEREIN AND TO BE USED ON THIS JOBSITE ARE BY SIMPSON STRONG-TIE BECAUSE THEY SUPPORT THE INDUSTRY WITH EXTENSIVE TESTING, EDUCATION, AND FIELD SUPPORT. ALL ANCHORS SHALL BE INSTALLED PER MFG'S. RECOMMENDATIONS, BE ATTENTIVE TO NAIL SIZES AND LENGTHS. THE SIMPSON CATALOG SHALL BE ON THE JOBSITE, NO ALTERNATE MANUFACTURERS ARE ALLOWED.
- SILL PLATE ANCHORING: SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL AS FOLLOWS: ANCHOR BOLTS SHALL BE MIN. ONE-HALF INCH DIAMETER DEFORMED OR THREADED ROD WITH MIN. EMBEDMENT OF 7 INCHES INTO CONCRETE OR SOLID FILLED MULTICOURSE MASONRY. THE WASHER IN CONTACT WITH THE SILL PLATE SHALL BE MIN. 2 INCHES SQUARE AND 1/8" THICK. AT BLDG. CORNERS, OR THE END OF SILL PLATE SECTIONS, THE ANCHOR BOLT SHALL NOT BE MORE THAN 7 DIAMETERS" (3-1/2") FROM ENDS. IN ADDITION, ANCHORS SHALL BE PLACED ALONG WALLS AT INTERVALS NOT EXCEEDING 48 INCHES. IF ANCHOR BOLTS ARE "CAST" INTO THE FOUNDATION WALL AND "MISS" THESE OBJECTIVES, THEN SUPPLEMENT AS REQUIRED BY DRILLING AND SETTING EPOXY BOLTS OR SIMPSON "TITEN HD" MASONRY SCREWS.
- NOTE, IT IS PRACTICAL TO BUILD THE WALL AS REQUIRED FOR OPENINGS, THEN DETERMINE THE BEST ANCHOR LOCATIONS. USE OF THE SIMPSON "TITEN HD" WOOD SCREWS, ALLOWS ANCHORS CLOSER TO CORNERS AND BETTER COORDINATION WITH "ULTRITE" SILL PLATE TO WALL ANCHORS.
- WIND BRACING "ULTRITE": A SILL PLATE TO WALL STUD ANCHORAGE. USE SIMPSON #55F WITH 2-MAX HOT DIPPED GALVANIZED COATING (BECAUSE OF PRESSURE TREATED PLATE, ALSO USE STAINLESS STEEL NAILS). USE A PAIR (INSIDE AND OUT) LOCATED AT BLDG. CORNERS, THEN SINGLE UNITS AT SPACING NOT EXCEEDING 48" O.C. (SAME AS FOUNDATION ANCHOR BOLTS). B) WALL STUD TO TOP DOUBLE PLATE. USE SAME PRODUCT AT THE SILL PLATE TO WALL STUD ANCHOR, LOCATED ON THE SAME STUD. THESE TOP AND BOTTOM ANCHORS SHOULD BE IN "ALIGNMENT."
- WALL-TO-WALL ANCHORAGE: WHERE WALLS CONTINUE ABOVE A FLOOR DECK, THE CONTINUITY OF UPLIFT ANCHORAGE SHALL BE MAINTAINED. UPPER WALL STUDS MUST BE LOCATED IN LINE WITH LOWER WALL STUDS. USING THE SAME STUDS WHICH HAVE THE SILL PLATE TO STUD ANCHORS, INSTALL SIMPSON ACS STRAPS.
- WALL TO RAFTER ANCHORAGE: EVERY RAFTER SHALL BE ANCHORED TO THE WALL TOP PLATE USING ONE "HURRICANE CLIP", SIMPSON #HZ.5A. ALL CEILING JOISTS (OR FLOOR JOISTS) SHALL BE SECURELY NAILED TO THE RAFTER.
- RAFTER TO RIDGE BEAM (OR OTHER EXISTING STRUCTURE): USE SIMPSON #LSTA STRAPS.

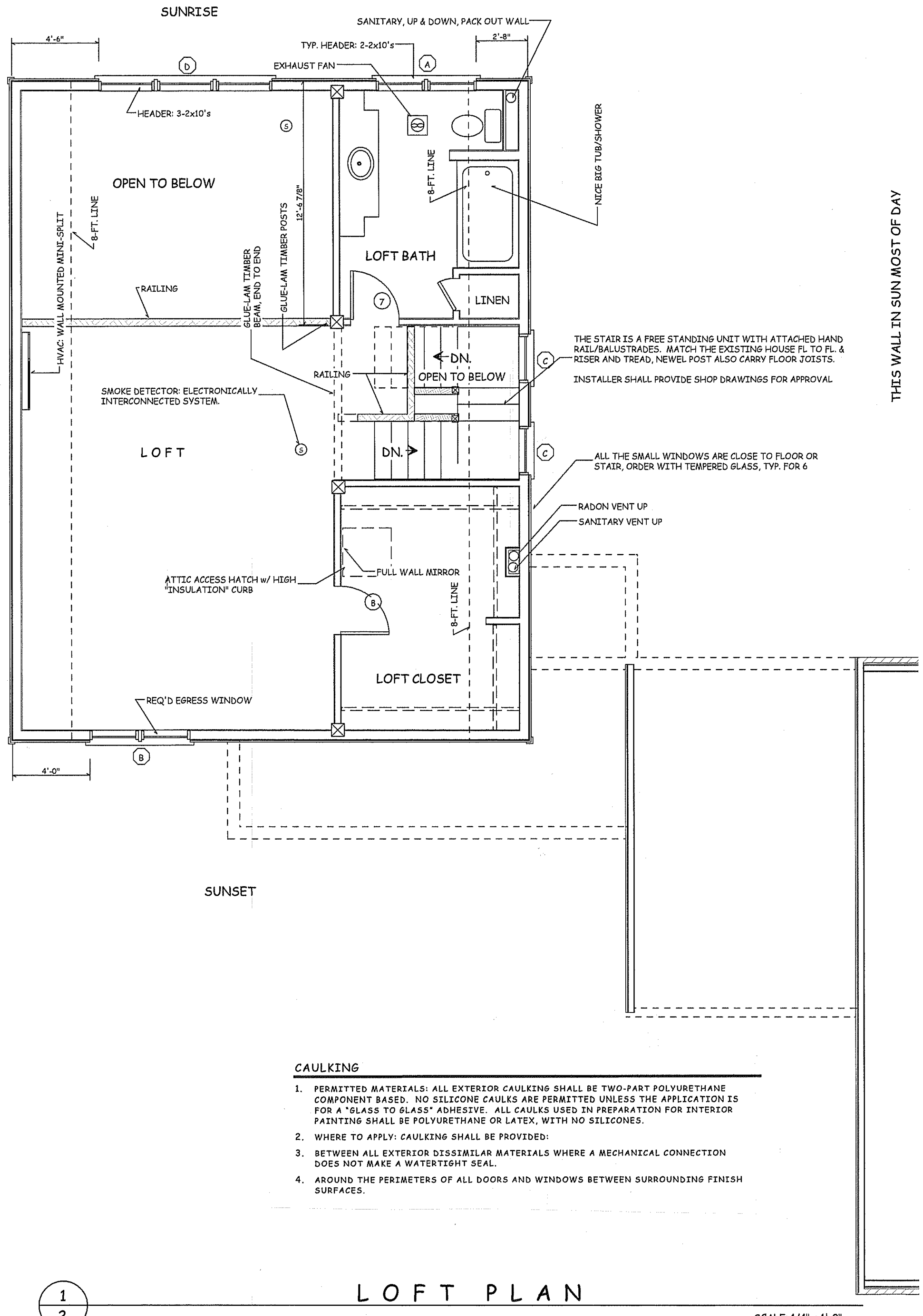
THIS WALL IN SUN MOST OF DAY



FIRST FLOOR PLAN

FIRESTOPPING

- INSTALL BEFORE ROUGHING IN OF ANY PLUMBING, ELECTRICAL OR HVAC WORK.
- FIRESTOPPING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIRESTOPPING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:
 - IN CONCEALED SPACES OF STUD WALL AND PARTITIONS, INCLUDING FURRED SPACES AND STUDD OFF SPACES OF MASONRY OR CONCRETE WALLS, AT THE CEILING AND FLOOR LEVEL.
 - AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, SOFFITS OVER CABINETS, DROP CEILINGS, COVE CEILINGS, ETC.
 - IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF RUN.
 - IN EXTERIOR CORNICES AND OTHER EXTERIOR ARCHITECTURAL ELEMENTS WHERE PERMITTED OF COMBUSTIBLE CONSTRUCTION OR WHEN ERECTED WITH COMBUSTIBLE FRAMES, AT MAX. INTERVALS OF 20 FT. IF NONCONTINUOUS, THEY SHALL HAVE CLOSED ENDS, WITH AT LEAST 4" OF SEPARATION BETWEEN SECTIONS.
 - IN THE SPACE BEHIND COMBUSTIBLE TRIM AND FINISH WHERE PERMITTED AND ALL OTHER HOLLOW SPACES WHERE PERMITTED IN FIRE RESISTANCE RATED CONSTRUCTION AT 10' INTERVALS; OR THE SPACE SHALL BE COMPLETELY FILLED WITH NONCOMBUSTIBLE MATERIALS.
 - IN CONCEALED SPACES FORMED BY FLOOR SLEEPERS IN AREAS OF NOT MORE THAN 100 SQ.FT., OR THE SPACE MAY BE COMPLETELY FILLED WITH NONCOMBUSTIBLE MATERIALS.
- AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS, WITH NONCOMBUSTIBLE U.L. RATED SYSTEMS AND MATERIALS.
- FIRESTOPPING SHALL CONSIST OF 2-INCH NOMINAL LUMBER WITH TIGHT JOINTS, OR TWO THICKNESS OF 1-INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS, OR ONE THICKNESS OF 23/32-INCH PLYWOOD WITH JOINTS BACKED BY 23/32-INCH PLYWOOD, OR OTHER APPROVED MATERIALS SECURELY FASTENED IN PLACE.
- FIRESTOPPING AT CHIMNEYS AND FIREPLACES: WHERE A "SPACE" MUST BE MAINTAINED BETWEEN COMBUSTIBLE MATERIALS INSTALL FOLDED METAL PANS TO STOP FLOW OF AIR BETWEEN FLOORS AND INTO OTHER VOIDS.
- THE INTEGRITY OF ALL FIRESTOPS SHALL BE MAINTAINED AND SHALL NOT BE CONCEALED UNTIL INSPECTED AND APPROVED.



LOFT PLAN

SCALE: 1/4" = 1'-0"

REV. #	DESCRIPTION	DATE

PLANS NOT VALID FOR PERMITS UNLESS SIGNED WITH "RED" INK & IMPRESSED w/ SEAL

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