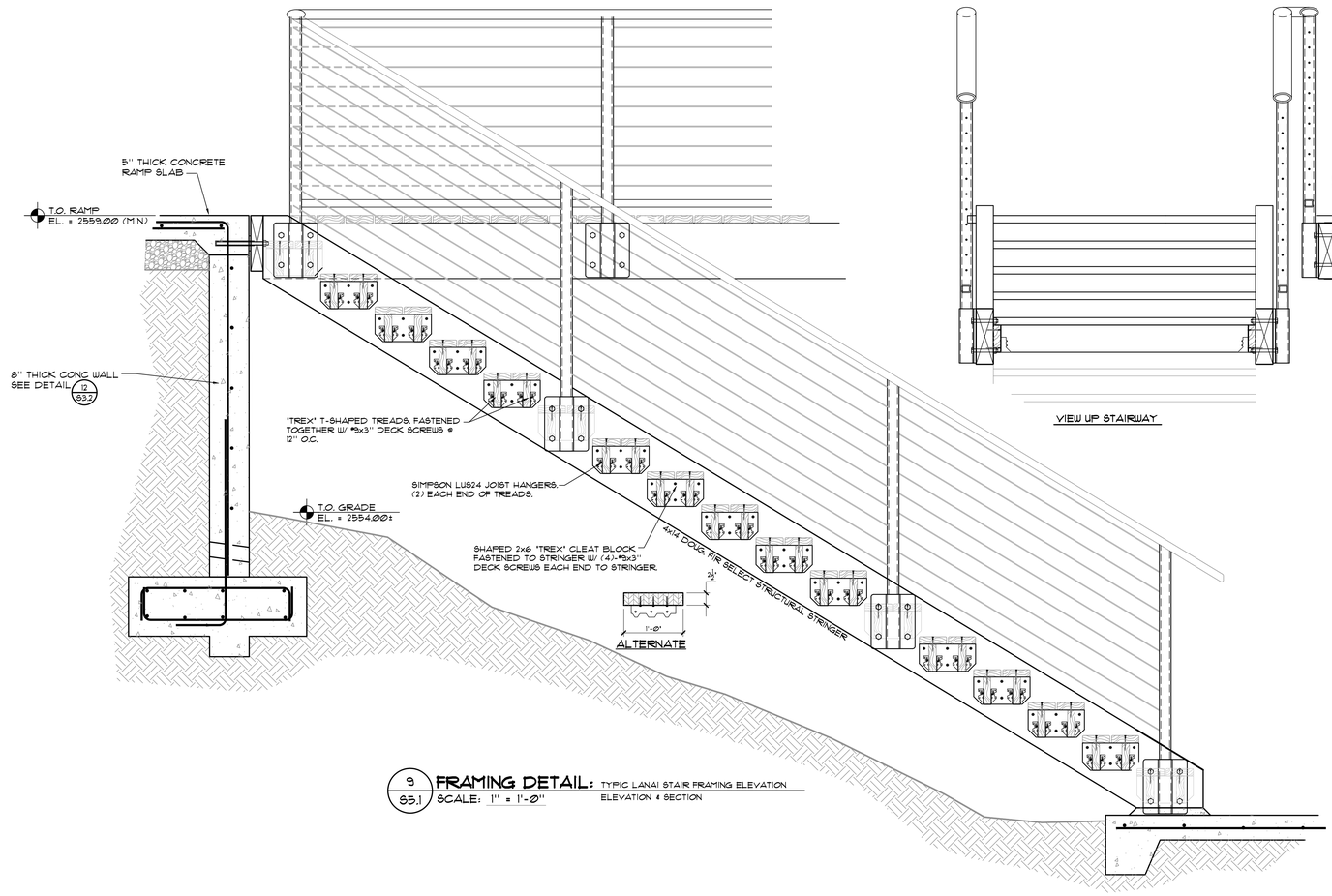
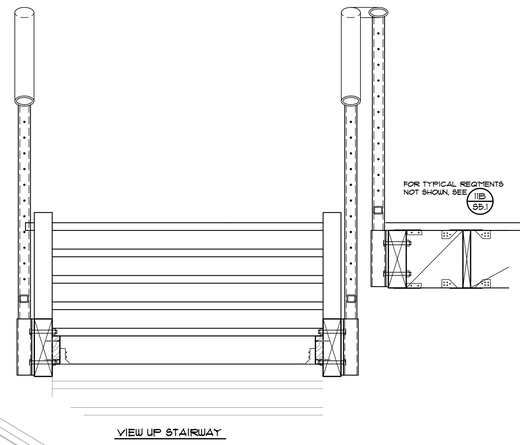
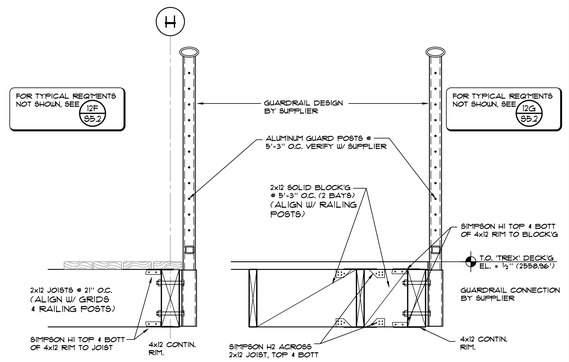


9 S5.1 **FRAMING DETAIL:** TYPIC LANAI STAIR FRAMING ELEVATION
SCALE: 1" = 1'-0" ELEVATION & SECTION



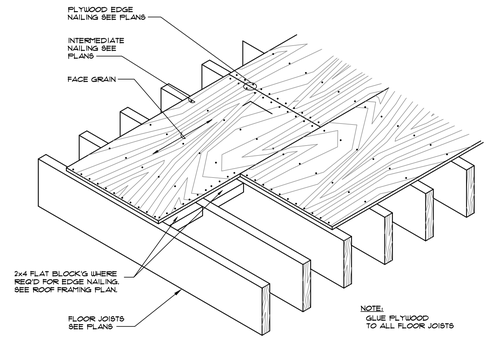
VIEW UP STAIRWAY



A GUARD RAIL @ LANAI JOISTS PERPENDICULAR TO RIM

B GUARD RAIL @ LANAI JOISTS PARALLEL TO RIM

11 S5.1 **FRAMING DETAIL:** GUARDRAIL DETAILS @ LANAIS & RAMPS
SCALE: 1" = 1'-0"



6 S5.1 **FLOOR & ROOF PLYWD NAILING DETAIL**

SHEAR WALL SCHEDULE

	MARK	SHEATHING (1)	EDGE NAIL (2) / FIELD NAIL	(3) ANCHOR BOLTS #	TOP PLATE SCREWS TO GLB RAFTER (4) OR SPANDREL	WALL PLATE NAILING TO BEAM OR BLOCKING (5)
	A 310 plf	15/32" APA RATED SHEATHING EXP 1	10d @ 6" O.C. / 10d @ 12" O.C.	⅝" DIA x 8" A.B. @ 32" O.C.	SIMPSON SDS25312 @ 16" O.C.	16d COMMONS @ 6" O.C.
***	B 460 plf	15/32" APA RATED SHEATHING EXP 1	10d @ 4" O.C. / 10d @ 12" O.C.	⅝" DIA x 8" A.B. @ 16" O.C.	SIMPSON SDS25312 @ 12" O.C.	16d COMMONS @ 4" O.C.
***	C 600 plf	15/32" APA RATED SHEATHING EXP 1	10d @ 3" O.C. / 10d @ 12" O.C.	⅝" DIA x 14" (MIN) A.B. @ 16" O.C.	SIMPSON SDS25312 @ 8" O.C.	(2) ROWS OF 16d COMMONS @ 6" O.C.
****	D 710 plf	15/32" APA RATED SHEATHING EXP 1	10d @ 2" O.C. / 10d @ 12" O.C.	⅝" DIA x 14" (MIN) A.B. @ 16" O.C.	SIMPSON SDS25312 @ 6" O.C.	(2) ROWS OF 16d COMMONS @ 4" O.C.
****	E 710 plf	15/32" STRUCT I OR 19/32" APA RATED SHTG EXP 1	10d @ 2" O.C. / 10d @ 12" O.C.	⅝" DIA x14" (MIN.) A.B. @ 16" O.C. (4x6 SOLE PLATE)	SIMPSON SDS25312 @ 3" O.C.	(2) ROWS OF 16d COMMONS @ 4" O.C.

* ANCHOR BOLTS ALL THREADED RODS EPOXIED 6" INTO SLAB MAY BE USED IN PLACE OF CONVENTIONAL "J" ANCHOR BOLTS @ SPECIFIED SPACING (NOT ALLOWED AT HOLDOWNS). AT ALL (B)-TYPE AND (C)-TYPE SHEARWALLS, MINIMUM 3"x3"x5/16" THICK PLATE WASHERS MUST BE PROVIDED.

** MUDSILL ANCHORS AT SPACING SPECIFIED MAY BE USED IN PLACE OF ANCHOR BOLTS AT SLABEDGES

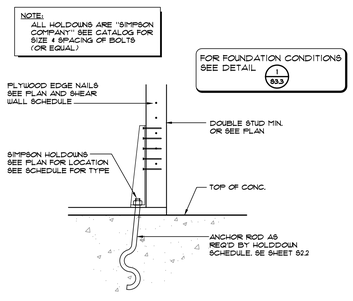
*** FRAMING @ ADJOINING PANEL EDGES SHALL BE 3" NOMINAL OR WIDER AND NAILS SHALL BE STAGGERED WHERE 10d NAILS HAVING PENETRATION INTO FRAMING OF MORE THAN 2½" ARE SPACED 4" O.C. OR LESS. (DOUBLE STUDS NOT ACCEPTABLE) — 3x (MIN) STUDS OR BLOCKING — ADJOINING EDGES (VERT. OR HORIZ.)

**** AT ALL TYPE (D) & (E) SHEARWALLS, FRAMING AT ALL PANEL EDGES MUST BE 3" NOMINAL OR WIDER WITH STAGGERED NAILS AS SHOWN ABOVE. IN ADDITION, ALL SILL PLATES MUST BE 3" NOMINAL OR WIDER. (NO EXCEPTIONS)

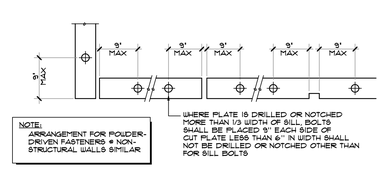
NOTES ON PLYWOOD SHEAR WALLS

- (X) DESIGNATES SHEARWALL TYPE. SEE MAIN LEVEL FRAMING PLANS FOR LOCATIONS OF SHEARWALLS.
- (X) INDICATES LOCATION OF SIMPSON HOLDOWNS W/ 6x6 POSTS ON PLAN. PLYWOOD SHALL BE NAILED @ EDGE SPACING FOR FULL HEIGHT TO HOLDOWN POST.
- NO EXPANSION ANCHORS MAY BE USED @ PERIMETER FOOTINGS. ONLY INTERIOR FOOTINGS WHERE DISTANCE FROM BOLT CENTERLINE TO EDGE OF SLAB EXCEEDS 4" MAY HAVE EXPANSION ANCHORS USED INSTEAD OF ANCHOR BOLTS. NO EXPANSION ANCHORS PERMITTED @ ANY HOLDOWNS.
- ALL SHEARWALL PLYWOOD SHALL BE APA RATED SHEATHING, EXPOSURE 1, WITH A MINIMUM THICKNESS OF 15/32", U.N.O. ALL NAILS SHALL BE 10d GALV. BOX OR 8d GALV. COMMON WITH MINIMUM LENGTH OF 2¼" 2½" AND SHANK DIAMETER OF Ø.128"
- ALL SHEAR WALL CONSTRUCTION SHALL BE INSPECTED BY THE STRUCTURAL ENGINEER BEFORE ANY COVERING MATERIAL (CEILING FRAMING OR SOFFIT SHEATHING) IS INSTALLED. SEE SHEET S1 FOR INSPECTION REQUIREMENTS.

1 S5.1 **PLYWOOD SHEAR WALL SCHEDULE**
SCALE: NONE



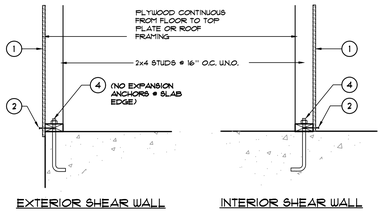
4 S5.1 **TYPICAL HOLDOWN DETAILS**
SCALE: 1" = 1'-0"



3 S5.1 **TYPICAL SILL BOLTING DETAIL**
SCALE: 1" = 1'-0"

EXTERIOR WALLS:
½" OR ⅝" DIA. EPOXY GROUTED BOLTS W/ 5" MIN. EMBEDMENT MAY BE USED @ EXTERIOR SHEAR WALLS IN PLACE OF ANCHOR BOLTS INDICATED IN SHEAR WALL SCHEDULE.
MAB MUDSILL ANCHORS MAY BE USED IN PLACE OF ANCHOR BOLTS @ SPACING AND LOCATIONS NOTED IN SHEAR WALL SCHEDULE

INTERIOR WALLS:
½" OR ⅝" DIA EXPANSION ANCHORS W/ 5" MIN. EMBEDMENT MAY BE USED @ INTERIOR SHEAR WALLS IN PLACE OF ANCHOR BOLTS INDICATED IN SHEAR SCHEDULE.



EXTERIOR SHEAR WALL — INTERIOR SHEAR WALL

2 S5.1 **SHEAR WALL DETAILS**
SCALE: NONE

ENERGY LAB
Hawai'i Preparatory Academy
Kamuela, Hawaii
TMK: 6-5-1: 33

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WALTER T. VORFELD LICENSED PROFESSIONAL ENGINEER NO. 7004 S Hawaii, USA
Signature

This work was performed by me or under my supervision and constitutes my original work and the work of my observation (observation of construction as defined in section 16-115-2 of the rules and regulations of the Board of Professional Engineers, Architects and Surveyors of the State of Hawaii).
EXP. 4/30/2010

	PERMIT SET	1/19/09

TYPICAL & MISC. WOOD FRAMING DETAILS

PERMIT SET 01-19-09

Drawn by: WTV, RD, KC	Job Number: WVA-28012
Checked by: WTV, RD, KC	Scale: AS NOTED
PERMIT SET	Date: 01/19/2009

S
5.1