DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

ALAN M. ARAKAWA
Mayor
CAROL K. REIMANN
Director
JAN SHISHIDO
Deputy Director

2200 MAIN STREET • SUITE 546 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165
MAILING ADDRESS: 200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • EMAIL: director.hhc@mauicounty.gov

July 10, 2017

Honorable Alan M. Arakawa
Mayor, County of Maui
200 South High Street
Wailuku, Hawaii 96793

For Transmittal to:

Honorable Chair Stacy Crivello
Housing, Human Services,
and Transportation Committee
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

APPROVED FOR TRANSMITTAL
Mayor 7/11/17 Date

Dear Chair Crivello:

SUBJECT: COUNTY-OWNED PARCEL ON NORTH PAPA AVENUE (KAHULUI) (HHT-14)

Thank you for your correspondence of June 20, 2017 pertaining to your committee's discussion on the above subject. Your committee requested the Department's assistance in ensuring the scope of the feasibility study includes the items listed below in bold which are followed by the Department's responses.

1. **A copy of the renovation plans UHMC has prepared for the three dorm structures and recreation center on property.**

   Per your request, please see attached plans developed for UHMC to transform the old dormitories into a Hospitality Training Academy.

2. **The best use of the property, including the feasibility and practicality of establishing a mixed-use project involving affordable rental units and a homeless facility.**

   The best use of the property will be determined after a structural engineer has evaluated the soundness of the existing buildings. The buildings have sat vacant and unused for a length of time and, therefore, a full structural assessment would be required to address potential safety concerns. The

plan is to first conduct a forensic study of the existing structures, and then hire a consultant to move forward, depending upon the forensic results. The department is currently preparing the RFP to hire a structural engineer.

3. **Whether existing structures on the property are sound and should be renovated, or whether they should be demolished.**

   Please see response to question 2.

4. **Any useful accessories such as a bus stop to the project.**

   There is currently a bus stop located at Roselani Place, which is across the street from the parcel.

5. **A projected timeframe for completion.**

   Until we can assess the viability of the existing structures, coming up with a timeframe is premature.

In response to your request for confirmation on whether UHMC intends to remain on the lease agreement until the year 2035, we have confirmed that UHMC has decided to move their training academy to a location on campus and has no intention of continuing the lease. The Department is prepared to terminate with UHMC once we determine if we can salvage the existing structures. If the buildings need to be demolished, then UHMC will pay for the demolition; after which, the department will terminate the lease.

Thank you for the opportunity to provide this information. Should you have any questions, please feel free to contact me at Ext. 7805.

Sincerely,

CAROL K. REIMANN
Director of Housing and Human Concerns

Attachment

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK. ALL DISCREPANCIES SHALL BE PROMPTLY REPORTED TO THE ENGINEER.
2. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
3. ALL WORK SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC), LATEST EDITION, AS ADOPTED BY THE STATE OF HAWAII.
4. UNLESS SPECIFICALLY DETAILED ELSEWHERE, CONTRACTOR SHALL FOLLOW TYPICAL DETAILS ON SHEETS S0-01 THROUGH S0-03.
5. WHERE CONDITIONS HAVE NOT BEEN SPECIFICALLY INDICATED BUT ARE SIMILAR TO DETAILS SHOWN ON SHEETS S0-01 THROUGH S0-03, MODIFY TYPICAL DETAILS TO MEET SPECIAL CONDITIONS.
6. STRUCTURAL DRAWINGS WHERE INDICATED HAVE BEEN DRAWN TO APPROXIMATE SCALE. UNLESS DRAWING SPECIFICALLY PROVIDES A DIMENSION, THE CONTRACTOR SHALL NOT USE OR SCALE STRUCTURAL DRAWINGS TO DETERMINE DIMENSIONS.
7. PRIOR TO ANY DEMOLITION AND DURING CONSTRUCTION, THE EXISTING STRUCTURES SHALL BE SHORED AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

REINFORCING STEEL

1. UNLESS OTHERWISE INDICATED ON PLANS AND/OR SCHEDULE, ALL REINFORCING STEEL SHALL BE HIGH STRENGTH GRADE DEFORMED BARS WHICH SHALL CONFORM TO THE STANDARD SPECIFICATION OF ASTM A615 GRADE 60. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706, GRADE 60. FOR SPECIAL CHORD REINFORCEMENT ASTM 615 GRADE 75 BARS SHALL BE USED AS SPECIFIED ON PLANS.
2. LOW HYDROGEN WELDING RODS SHALL BE USED FOR ALL WELDING TO REINFORCING BARS.
3. REINFORCING SHALL BE SPLICED ONLY AS SHOWN OR NOTED. SPLICES AT OTHER LOCATIONS SHALL BE MADE AWAY FROM POINTS OF MAXIMUM STRESS AND APPROVED BY THE ENGINEER. SEE DETAILS FOR "LAP SPLICES".
4. BARS NOTED AS "CONT." VERTICAL AND HORIZONTAL WALL REINFORCING AND COLUMN REINFORCING SHALL HAVE A MINIMUM SPLICE EQUAL TO 48 BAR DIAMETERS BUT NOT LESS THAN 24 INCHES.
5. WHERE MECHANICAL SPLICES, ARE REQUIRED, SPLICES SHALL BE ABLE TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR AND SHALL BE STAGGERED 3'-0" BETWEEN ADJACENT BARS.
6. PROVIDE DOWELS IN FOOTINGS THE SAME SIZE AND NUMBER AND IN THE SAME LOCATION AS VERTICAL COLUMN REINFORCING. DOWELS SHALL HAVE A MINIMUM PROJECTION EQUAL TO 48 BAR DIAMETERS BUT NOT LESS THAN 24 INCHES.
7. ALL REINFORCING STEEL, ANCHOR BOLTS AND OTHER INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
8. MINIMUM CONCRETE COVER:

A.) MINIMUM COVER FOR CAST-IN-PLACE CONCRETE (NON-PRESTRESSED):
THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

	COVER (IN)
(1) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
(2) FORMED CONCRETE SURFACES EXPOSED TO EARTH OR WEATHER:	
NO. 6 THROUGH NO. 18 BARS	2"
NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1½"
(3) CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALL, JOISTS: NO. 14 AND NO. 18 BARS	1½"
SLABS, WALL, JOISTS: NO. 11 BAR AND SMALLER	¾"
BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1½"

C.) CONCRETE COVER TOLERANCE SHALL BE AS FOLLOWS:

(1) FORMED SOFFITS OR MEMBERS 4" OR LESS IN THICKNESS	+⅜, -¼"
(2) MEMBERS 12" THICK OR LESS	±⅜"
(3) MEMBERS GREATER THAN 12" THICK	±½"

FOR ALL CASES, THE COVER SHALL NOT BE LESS THAN ⅔ OF WHAT IS INDICATED AND REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.

D.) WHEN THE IBC REQUIRES A THICKNESS OF COVER FOR FIRE PROTECTION GREATER THAN THE MINIMUM CONCRETE STATED ABOVE, SUCH GREATER THICKNESS SHALL BE USED.

CONCRETE BLOCK MASONRY

1. ALL MASONRY WORK SHALL CONFORM TO ACI 530-05.
2. CONCRETE BLOCK SHALL BE TYPE II HOLLOW LOAD BEARING UNITS.
3. MASONRY MORTAR SHALL BE TYPE "M", WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI CONFORMING TO ASTM C270.
3. MASONRY GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
4. ALL CELLS SHALL BE GROUTED SOLID. GROUT IN LIFTS NOT TO EXCEED 8'-0".
5. UNLESS NOTED OTHERWISE, ALL WALLS SHALL BE CONSTRUCTED IN CONVENTIONAL RUNNING BOND.
6. AT CMU WALLS PROVIDE HORIZONTAL JOINT REINFORCING AT 16" O.C.
7. WIRE POSITIONERS – CMU WALL REINFORCING SHALL BE SECURED AGAINST DISPLACEMENT BY GALVANIZED NO. 9 GAUGE WIRE POSITIONERS SPACED AT NOT MORE THAN 200 TIMES THE BAR DIAMETER.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05.
2. SLEEVES EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. PIPE MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES BUT SHALL NOT BE EMBEDDED THEREIN.
3. SECURE ALL BOLTS, ANCHORS, INSERTS, ETC. AND VERIFY ALL GROOVES, SLOTS, AND FINISHES PRIOR TO PLACING CONCRETE.
4. VERIFY LOCATIONS AND DIMENSIONS OF SLOTS, ANCHORS, DUCTS, ETC., RELATING TO MECHANICAL, ELECTRICAL AND ARCHITECTURAL WORK BEFORE POURING CONCRETE.
5. ALL CONCRETE WORK SHALL BE THOROUGHLY CONSOLIDATED DURING PLACEMENT USING A MECHANICAL VIBRATOR. BACKUP (EXTRA) VIBRATOR(S) SHALL BE PRESENT AT EACH FOR IN CASE OF FAILURE.
6. ALL CONCRETE SHALL BE CURED FOR A PERIOD OF NOT LESS THAN 7 DAYS.
7. LOCATIONS OF ALL CONSTRUCTION OR COLD JOINTS SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. 48 HOURS PRIOR TO THE POURING OF ANY STRUCTURAL CONCRETE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO AN INSPECTION CAN BE MADE OF ALL FORMS AND REINFORCING STEEL.
9. THE 28-DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:

	STRENGTH (PSI)	MAX. AGGREGATE	W/C RATIO
BUILDING SLAB ON GRADE, EXTERIOR WALKWAY AND LANDINGS	4,500	1½"	0.45
FOOTINGS AND GRADE BEAMS	4,500	1½"	0.45

EPOXIED ANCHORS:

1. ADHESIVE SHALL BE AN INJECTABLE TWO-COMPONENT EPOXY SUCH AS SIMPSON SET-XP, HILTI HIT RE-500 SD OR APPROVED EQUAL.
2. INSTALLATION OF EPOXIED ANCHORS SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS.
3. THREADED ANCHOR RODS SHALL BE HOT DIP GALVANIZED AND CONFORM TO ASTM A-193, GRADE B7. THREADED ANCHOR RODS SHALL BE UNC FULLY THREADED, CLEAN, STRAIGHT AND FREE OF INDENTATIONS OR OTHER DEFECTS ALONG THEIR LENGTH.
4. HOLES SHALL BE DRILLED WITH A CARBIDE-TIPPED DRILL BIT. IF HOLES ARE CORE DRILLED WITH DIAMOND-CORE BITS, EPOXY ADHESIVE SELECTED FOR USE BY THE CONTRACTOR SHALL BE SUITABLE FOR THIS APPLICATION WITH NO REDUCTION IN PUBLISHED ALLOWABLE SHEAR AND TENSION LOADS.
5. DIAMETER OF HOLES SHALL BE EQUAL TO THREADED ROD DIAMETER +⅛".
6. ANCHORS SHALL BE INSTALLED IN CONCRETE/CMU THAT HAS REACHED ITS FULL DESIGN COMPRESSIVE STRENGTH.
7. INSTALLATION OF EPOXIED ANCHORS SHALL BE PERFORMED UNDER THE SUPERVISION OF A SPECIAL INSPECTOR IN ACCORDANCE WITH SECTIONS 1704.4 AND 1704.13 OF THE IBC. THE SPECIAL INSPECTOR MUST BE ON THE JOBSITE TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE/CMU COMPRESSIVE STRENGTH, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE.

DESIGN LOADS

1. SLOPED ROOF LIVE LOAD: 20 PSF
2. FLOOR LIVE LOADS:
   RESIDENTIAL 40 PSF
   STAIRS 100 PSF
3. WIND 105 MPH PER IBC, EXPOSURE C, I_W=1.0, K_{zt} = 1.6
4. SEISMIC, PER IBC, S_S=0.98, S_1=0.252, I_E=1.0, SITE CLASS D
5. ALL COMPONENTS TO BUILDING SHALL BE SECURED PROPERLY TO RESIST LATERAL SEISMIC FORCES IN ACCORDANCE TO THE IBC. DESIGN OF ATTACHMENTS FOR COMPONENTS SHALL BE THE RESPONSIBILITY OF SUB-CONTRACTOR INSTALLAING SUCH COMPONENT

SPECIAL INSPECTION REQUIREMENTS LIST BELOW

SPECIAL INSPECTION REQUIREMENTS:

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR FOR WORK REQUIRING SPECIAL INSPECTION PER CHAPTER 17 OF THE 2006 IBC AS ADOPTED BY THE COUNTY OF MAUI.
2. SPECIAL INSPECTION FIRM SHALL HAVE AT LEAST 6 YEARS OF EXPERIENCE AND SHALL BE CERTIFIED WITHIN THE BUILDING DEPARTMENT JURISDICTION OF CONSTRUCTION (IF SUCH CERTIFICATION EXIST).
3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SPECIAL INSPECTOR TO ENSURE THAT ALL ELEMENTS REQUIRING SPECIAL INSPECTION ARE INSPECTED.
4. SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING TYPES OF WORK:
   A. CONCRETE:
   OBSERVE THE TAKING OF TEST SPECIMENS AND THE PLACING OF CONCRETE FOR ALL ELEMENTS.
   B. REINFORCING STEEL:
   OBSERVE THE PLACEMENT OF ALL REINFORCING. THE SPECIAL INSPECTOR NEED NOT BE PRESENT CONTINUOUSLY DURING THE PLACING OF REINFORCING STEEL, PROVIDED HE HAS INSPECTED FOR CONFORMANCE WITH THE APPROVED PLANS PRIOR TO THE CLOSING OF FORMS FOR THE DELIVERY OF CONCRETE TO THE JOBSITE.
   C. ANCHOR BOLTS FOR STEEL COLUMNS AND POST
   D. EXPANSION BOLTS AND EPOXIED ANCHORS/REBAR
   E. CONTINUOUS LOAD PATH AND SHEARWALL HOLD DOWNS

CONCRETE REPAIR/REHABILITATION

PROJECT CONDITIONS:

1. DO NOT APPLY MATERIAL IF IT IS RAINING OR IF RAIN IS IMMINENT.
2. PRECAUTIONS SHOULD BE TAKEN TO AVOID DAMAGE TO ANY SURFACE NEAR THE WORK ZONE DUE TO SPILLAGE.
3. LEAVE FINISHED WORK IN NEAT, CLEAN CONDITION WITH NO EVIDENCE OF SPILL OVER ONTO ADJACENT SURFACES.

PRODUCTS:

1. ANTI-CORROSION PROTECTIVE COATING (CORROSION INHIBITOR): TWO-COMPONENT, ACRYLIC RESIN EPOXY SYSTEM FORMULATED TO INHIBIT THE CORROSION OF REINFORCING STEEL AND TO ACT AS A BONDING AGENT. SUCH AS: SIKA ARMATEC 110 EPOCEM, MASTER EMACOP124,OR APPROVED EQUAL.
2. FAST SETTING, HIGH STRENGTH PATCHING MORTAR (POLYMER MODIFIED MORTAR) FOR HORIZONTAL APPLICATIONS: ACRYLIC POLYMER-MODIFIED, PORTLAND CEMENT BASED, TROWEL-GRADE PATCHING MORTAR. CONFORM TO REQUIREMENTS OF ASTM C 884, SUCH AS SIKATOP 122 PLUS, MASTER EMACO R310 OR T430, OR APPROVED EQUAL.
3. FAST SETTING, HIGH STRENGTH PATCHING MORTAR (POLYMER MODIFIED MORTAR) FOR VERTICAL APPLICATIONS: TWO-COMPONENT (OR SINGLE COMPONENT), ACRYLIC POLYMER-MODIFIED, PORTLAND CEMENT BASED, NON-SAG PATCHING MORTAR. CONFORM TO REQUIREMENTS OF ASTM C 884, SUCH AS SIKATOP 123 PLUS, MASTER EMACO N426, OR APPROVED EQUAL.

PREPARATION -GENERAL:

1. ACI 503R, ACI 503.2, ACI 503.4 FOR EPOXY RESIN SYSTEMS. MIX THE PATCHING MATERIALS WITH OR WITHOUT FILLERS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL APPLICATIONS OF THE MIXED MATERIALS SHALL BE PERFORMED WITHIN THE WORKING LIFE OR POT LIFE OF THE PATCHING SYSTEM. UNUSED MIXED MATERIALS WHICH HAVE REACHED THE END OF THE WORKING OR POT LIFE SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE. FIELD MIXING AND SIZE OF BATCH SHALL BE DETERMINED BY THE CONTRACTOR. PATCHING SYSTEMS SHALL BE PROVIDED AS INDICATED AND REQUIRED BY SPECIFICATIONS.
2. CLEANING: PREPARE ALL SURFACES REQUIRING PATCHING SO THAT THEY WILL BE STRUCTURALLY SOUND, CLEAN, AND FREE OF DIRT, LOOSE CONCRETE, LOOSE MORTAR PARTICLES, PAINT, FILMS, PROTECTIVE COATINGS, EFFLORESCENCE, LAITANCE, AND OTHER MATTER DETRIMENTAL TO PROPER ADHESION.
3. CHECK AREAS AROUND CRACKS, BLISTERS, OLD PATCHES, AND RUST SPOTS BY TAPPING SURFACE WITH A HAMMER, OTHER BLUNT INSTRUMENT, OR USING A CHAIN. SOUND FOR LOOSE OR HOLLOW AREAS AND MARK AREAS FOR REMOVAL OF UNSOUND CONCRETE OR MORTAR.
4. ALL AREAS WHERE CRACKS EXIST AND THE CONCRETE IS NOT IN A STATE OF CONCRETE DELAMINATION AS DETERMINED BY SOUNDING WITH A HAMMER OR CHAIN SHALL BE CLEANED OF ALL DIRT, LOOSE MORTAR PARTICLES, PAINT, FILMS, LAITANCE AND ALL OTHER MORTAR DETRIMENTAL TO PROPER ADHESION .
5. REMOVE UNSOUND MATERIALS AND FILMS BY MEANS OF CHIPPING, SAW CUTTING, BUSH HAMMERING, NEEDLE GUNNING, SAND BLASTING, OR OTHER SUITABLE METHOD.
6. WASH DEBRIS FROM WORK SURFACES WITH CLEAN WATER. REMOVE ANY REMAINING EFFLORESCENCE BY ACID WASH, MURIATIC OR SIMILAR, AND RINSE WITH CLEAN WATER.

PREPARATION – REINFORCEMENT:

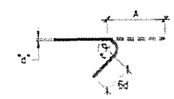
1. MECHANICALLY REMOVE ALL RUST AND LOOSE MATERIAL FROM ALL EXPOSED RUSTED REINFORCING STEEL TO SOUND METAL BY POWER BRUSHING, NEEDLE SCALER, OR SAND BLASTING.
2. APPLY ANTI-CORROSION PROTECTIVE COATING ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS TO ALL EXPOSED AND CLEANED REINFORCEMENT BARS AND CONCRETE SURFACES TO RECEIVE PATCH.
3. USING BRUSH OR ROLLER, SCRUB PRIMER BONDING AGENT ONTO WORK SURFACES WHILE ALSO COMPLETELY COATING EXPOSED REINFORCING STEEL AND CONCRETE.
4. DO NOT RESURFACE OVER HARDENED PRIMER BONDING AGENT. IF PRIMER BONDING AGENT BECOMES TACK FREE, MECHANICALLY ROUGHEN SURFACE AND REPRIME.

SPALL REPAIR (INCLUDES CRACKED/CLOSED SPALL CORNER OF PEDESTAL):

1. SAW CUT OR ROUT OUT SPALLS TO A MINIMUM WIDTH AND DEPTH OF 1/2 INCH.
2. REFER TO GENERAL PREPARATION INSTRUCTIONS ABOVE.
3. IF REINFORCING BAR IS EXPOSED, REFER TO REINFORCING PREPARATION INSTRUCTIONS ABOVE.
4. MECHANICALLY SCARIFY WORK SURFACES TO OBTAIN AGGREGATE FRACTURE WITHIN A MINIMUM SURFACE PROFILE OF PLUS OR MINUS 1/8 INCH.
5. APPLY PRIMER BONDING AGENT PER ABOVE INSTRUCTIONS AND MANUFACTURER'S PRINTED INSTRUCTIONS.
6. WHILE PRIMER BONDING AGENT IS STILL TACKY, MIX AND APPLY PREPARED PATCHING MORTAR TO PREPARED SPALL FOLLOWING MANUFACTURER'S PRINTED INSTRUCTIONS.
7. PLACE PATCHING MATERIAL IN THIN LAYERS AS RECOMMENDED BY THE MANUFACTURER. EACH INTERMEDIATE LAYER SHALL BE CROSS-SCRATCHED FOR MECHANICAL BONDING. ALL LAYERS FOR EACH PATCH SHALL BE PLACED ON THE SAME DAY. USE HAND TEMPERS TO CONSOLIDATE THE PATCHING MATERIAL. LEVEL EACH LAYER AND SCREED THE FINAL SURFACE. REMOVE EXCESS PATCHING MATERIAL ON ADJACENT SURFACES BEFORE IT HARDENS. DO NOT FEATHER OUT ONTO ADJACENT SURFACES. UPON COMPLETION OF FINISHING OPERATIONS, APPLY EVAPORATION REDUCER AND THEN APPLY CURING COMPOUND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PROTECT PATCHES WITH WATERTIGHT FORMS AND/OR COVERS UNTIL THE PATCHES ARE PROPERLY CURED.
8. USE PROPER PATCHING MATERIAL DEPENDING ON IF THE LOCATION OF THE SPALL IS HORIZONTAL, VERTICAL, OR OVERHEAD.
9. MINIMUM DEPTH OF SPALL PATCH OVER REINFORCING SHALL BE 1 INCH.
10. DO NOT FEATHER EDGES OF SPALL PATCH. SAW CUT OR ROUT EDGE OF REPAIR TO OBTAIN A 1/2 INCH MINIMUM VERTICAL EDGE TO REPAIRED AREA.
11. FINISHED PATCHED SPALL SHOULD MATCH EXISTING SURFACES IN TEXTURE AND APPEARANCE.
12. AT EXPOSED AREAS, GRIND THE REPAIRED PATCH FLUSH WITH SURROUNDING SURFACES; PATCH TEXTURE TO MATCH EXISTING.

ABBREVIATIONS

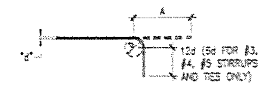
A.B.	ANCHOR BOLT	HSB	HIGH STRENGHT BOLT
ARCH.	ARCHITECTURAL OR ARCHITECT	INT.	INTERIOR
@	AT	JT	JOINT
BAL.	BALANCE	KSF	KIPS PER SQUARE FOOT
BOT.	BOTTOM	LONG.	LONGITUDINAL
BM.	BEAM	MAX.	MAXIMUM
B.T.B.	BASALTIC TERMITE BARRIER	M.B.	MACHINE BOLT
C.I.P.	CAST IN PLACE	MECH.	MECHANICAL
C.J.	CONSTRUCTION OR CONTROL JOINT	MIN.	MINIMUM
C.J.P.	COMPLETE JOINT PENETRATION WELD	N.T.S.	NOT TO SCALE
CL	CENTER LINE	NO.	NUMBER
CLR.	CLEAR	O.C.	ON CENTER
CMU	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
COL.	COLUMN	PL.	PLATE
CONC.	CONCRETE	PSI.	POUNDS PER SQUARE INCH
CONT.	CONTINUOUS	PSF	POUNDS PER SQUARE FOOT
CONN.	CONNECTION	R.F. OR	REINFORCED OR
Db	REBAR DIAMETER	REINF.	REINFORCEMENT
DIA. OR #	DIAMETER	REQ'D.	REQUIRED
DIAG.	DIAGONAL	SHT.	SHEET
DIMS.	DIMENSIONS	SP.	SPACE OR SPACES
DET.	DETAIL	SIM.	SIMILAR
EA.	EACH	SQ.	SQUARE
E.J.	EXPANSION JOINT	STD.	STANDARD
E.F.	EACH FACE	T & B	TOP AND BOTTOM
EL.	ELEVATOR	THK.	THICK
ELEV.	ELEVATION	T.O.C.	TOP OF CONCRETE
EQ.	EQUAL	T.O.F.	TOP OF FOOTING
EXP.	EXPANSION	T.O.S.	TOP OF SLAB
EXT.	EXTERIOR	T.O.W.	TOP OF WALL
E.W.	EACH WAY	TRANS.	TRANSVERSE
F.P.	FULL PENETRATION	TYP.	TYPICAL
FT.	FOOT OR FEET	VERT.	VERTICAL
FTG.	FOOTING	W/	WITH
GA.	GAGE	W/O	WITH OUT
GALV.	GALVANIZE	W.J.	WALL JOINT
HDG OR H.D.G.	HOT DIPPED GALVANIZED	W.W.F.	WELDED WIRE FABRIC
HORIZ.	HORIZONTAL	W.W.M.	WELDED WIRE MESH



BAR BEND 135°

STANDARD HOOK 180°

BAR SIZE	D
#3, #4, #5, #6, #7, #8	6d
#9, #10, #11	8d
#14, #18	10d



BAR BEND 90°

MINIMUM EXTENSION LENGTHS "A"				
BAR SIZE	STANDARD HOOKS		TIES AND STIRRUPS	
	180° HOOKS	90° HOOKS	90° HOOKS	135° HOOKS
#3	5"	7"	5"	6"
#4	8"	9"	6"	7"
#5	9"	11"	7"	9"
#6	11"	13"	14"	12"
#7	12"	15"	15"	14"
#8	14"	17"	19"	16"

A / S0-00 TYPICAL REBAR BENDING

NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

This work was prepared by me or under my supervision and construction of this project will be under my observation.

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224BA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

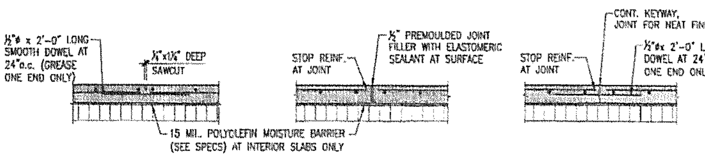
GENERAL NOTES AND TYPICAL DETAILS

SLSH & ASSOC., INC.

PROJECT NO. CC-11-5362

SHEET S0-00

DATE 9-30-2015



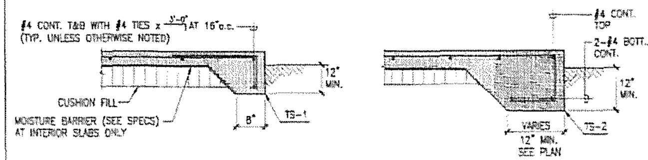
TYP. CONTROL JOINT (C.J.)

TYP. EXPANSION JOINT (E.J)

TYP. CONSTRUCTION JOINT

SAWCUT SHALL BE PERFORMED WITHIN 8 HOURS OF POUR AND AS SOON AS SLAB HAS SET AND IS FIRM ENOUGH SUCH THAT SAWCUT BLADE DOES NOT RIP, TEAR, OR DAMAGE SLAB OR UNRAVEL EDGES

A — TYPICAL SLAB JOINT DETAILS
S0-01 — NOT TO SCALE

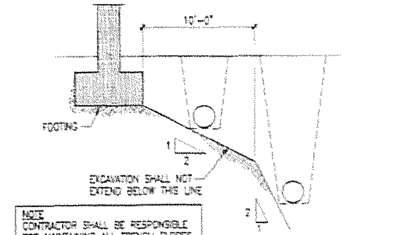


TS-1

TS-2

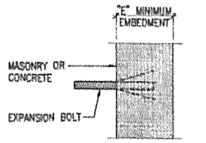
1. THIS DETAIL IS INTENDED TO SHOW DIMENSION OF THICKENED EDGE SLAB ONLY.
2. ALL SIDEWALK EDGES SHALL HAVE TS-1.

B — THICKENED SLAB DETAIL (TS-1 and TS-2)
S0-01 — NOT TO SCALE



NOTE
CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TRENCH SLOPES BY SHORING AS REQUIRED.

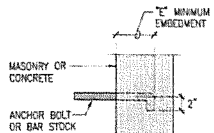
C — TRENCH DETAIL
S0-01 — NOT TO SCALE



NOTES:
1. GROUT ALL CELLS WITH BOLTS FULL HEIGHT.
2. ALL EXPANSION BOLTS SHALL BE HILTI KWIK BOLT III, HOT DIP GALV. ANCHORS OR EQUAL HAVING THE FOLLOWING MINIMUM LOAD VALUES.
3. I.C.C REPORT SHALL BE SUBMITTED FOR REVIEW

BOLT SIZE	MINIMUM "E"	MINIMUM ALLOW. SHEAR IN CONC. (#)	MINIMUM ALLOW. SHEAR IN MASONRY (#)
½" DIA.	4"	1550	550
⅝" DIA.	4"	1800	650
¾" DIA.	5"	2100	800
⅞" DIA.	6"	2500	1000
1" DIA.	7"		

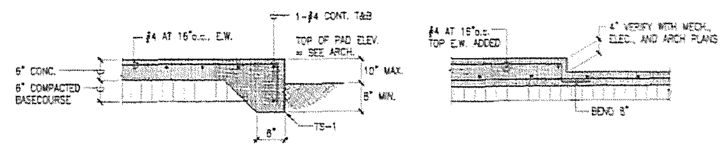
D — EXPANSION BOLT
S0-01 — NOT TO SCALE



NOTES:
1. GROUT ALL CELLS WITH BOLTS FULL HEIGHT.
2. UNLESS NOTED OTHERWISE, THESE ANCHOR BOLT DETAILS SHALL APPLY
3. ALL ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED.

BOLT SIZE	MINIMUM "E"
½" DIA.	6"
⅝" DIA.	8"
¾" DIA.	12"
⅞" DIA.	12"

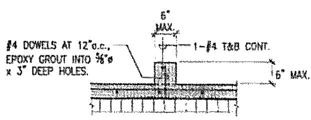
E — ANCHOR BOLT
S0-01 — NOT TO SCALE



AT EXTERIOR CONDITION

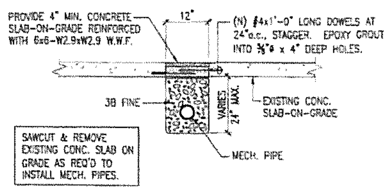
INTERIOR SLAB-ON-GRADE CONDITION

F — TYPICAL RAISED PAD AT SLAB-ON-GRADE CONDITION
S0-01 — NOT TO SCALE



PLAN

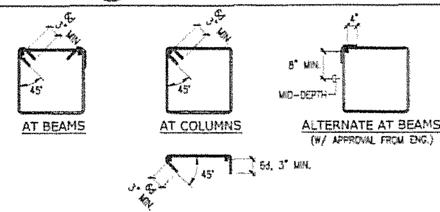
G — TYP. CURB AT BASE OF STUD WALL
S0-01 — NOT TO SCALE



SAWCUT & REMOVE EXISTING CONC. SLAB ON GRADE AS REQ'D TO INSTALL MECH. PIPES.

REPAIR OF CONC. SLAB-ON-GRADE FOR MECH. PIPE INSTALLATION

H — SLAB ON GRADE REPAIR DETAIL
S0-01 — NOT TO SCALE



AT BEAMS

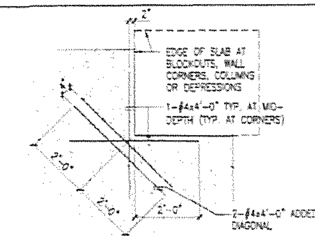
AT COLUMNS

ALTERNATE AT BEAMS (W/ APPROVAL FROM ENG.)

COLUMN CROSS TIES

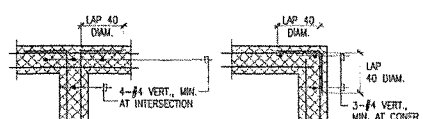
NOTES:
1. THESE DETAILS SHALL APPLY TO #3, #4, AND #5 BARS - GRADE 40 AND GRADE 60.
2. ALL BARS SHALL BE BENT COLD.
3. MINIMUM FINISHED BEND DIAMETER = 4d FOR #3, 4, AND #5 BARS.

J — TYPICAL STIRRUP AND TIE DETAIL
S0-01 — NOT TO SCALE



PLAN

K — TYP. S.O.G. RE-ENTRANT CORNER/ BLOCKOUT DETAIL
S0-01 — NOT TO SCALE

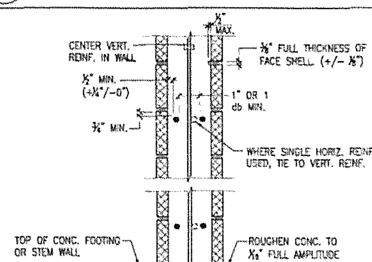


AT INTERSECTION

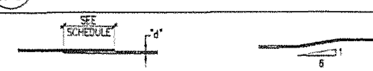
AT CORNER

TWO LAYERS OF REINF.

L — TYP. CMU WALL BOND BEAM REINFORCING
S0-01 — NOT TO SCALE



M — TYPICAL CMU DETAIL
S0-01 — NOT TO SCALE



LAP SPLICE

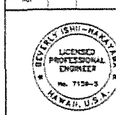
BAR OFFSET

BAR SIZE	f'c = 3000 PSI		f'c = 4000 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	24"	24"	24"	24"
#4	29"	24"	25"	24"
#5	36"	28"	31"	24"
#6	43"	33"	37"	29"
#7	63"	48"	54"	42"
#8	72"	55"	62"	48"
#9	81"	62"	70"	54"

NOTES
1. LAP SPLICE LENGTHS ARE FOR CLASS A LAP SPLICES ONLY.
2. LAP SPLICE LENGTHS ARE FOR GRADE 60 DEFORMED BARS.
3. LAP SPLICE LENGTHS SHALL BE IN ACCORDANCE WITH THIS TABLE, UNLESS OTHERWISE SHOWN OR NOTED.
4. FOR CLASS B LAP SPLICE, INCREASE LENGTHS SHOWN IN TABLE BY A FACTOR OF 1.3.
5. BOTTOM BARS AND INTERMEDIATE BARS WITH ≤ 12" OF CONC. BELOW, PROVIDE "OTHER BAR" LAP SPLICE.
6. TOP BARS AND INTERMEDIATE BARS WITH > 12" OF CONC. BELOW, PROVIDE "TOP BAR" LAP SPLICE.

N — TYPICAL LAP SPLICE DETAIL
S0-01 — NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	CHK. BY	DATE



This work was prepared by me or under my supervision and construction of this project will be under my observation.

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224SA & 224SB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

TYPICAL DETAILS

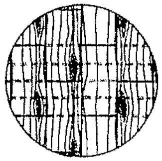
SLSH & ASSOC., INC.
1910 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO. CC-11-5362

SHEET S0-01

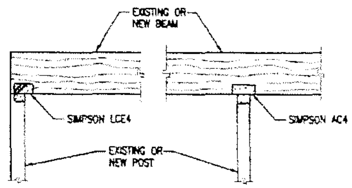
DESIGNED BY: BKN — CHECKED BY: HL
DRAWN BY: MN — APPROVED BY: HL
DATE: [illegible]

SHEET 47 OF [illegible] SHEETS

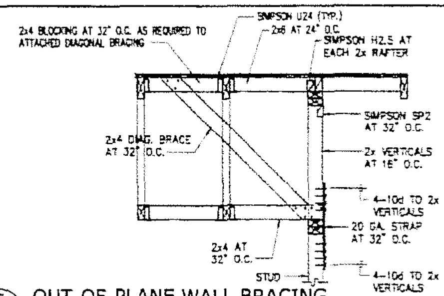


NOTE
1. LAY ALL PLYWOOD WITH FACE GRAIN ACROSS SUPPORTS.
2. STAGGER ALL PANELS.
3. UNLESS NOTED OTHERWISE, FOR SPECIAL SHEARWALL OR DIAPHRAGM LOCATIONS PROVIDE THE FOLLOWING MINIMUM NAILING:
   A. 1/2" PLYWOOD – 8d AT 6" O.C. ALL FRAMING.
   B. 5/8" PLYWOOD – 10d AT 6" O.C. ALL FRAMING.
   C. 3/4" PLYWOOD – 10d AT 6" O.C. ALL FRAMING.
4. PROVIDE SOLID BLOCKING AT ALL RIDGE, VALLEYS AND HIPS.

(A / S0-02) TYP. PLYWOOD LAYOUT
NOT TO SCALE

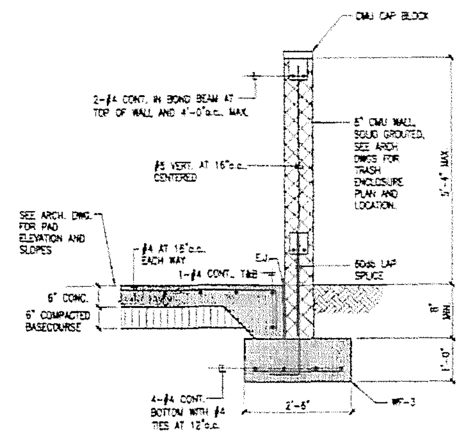


(B / S0-02) TYP. BEAM TO POST CONNECTION
NOT TO SCALE

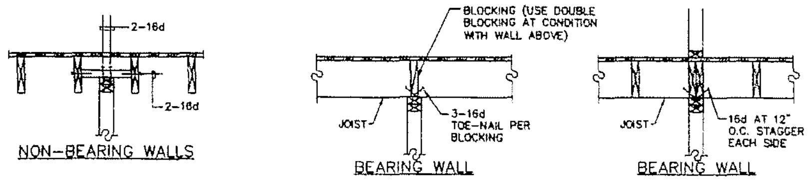


2x4 BLOCKING AT 32" O.C. AS REQUIRED TO ATTACHED DIAGONAL BRACING
SIMPSON U24 (TYP.)
2x6 AT 24" O.C.
SIMPSON H2.5 AT EACH 2x RAFTER
2x4 DIAG. BRACE AT 32" O.C.
SIMPSON SP2 AT 32" O.C.
2x VERTICALS AT 16" O.C.
4–10d TO 2x VERTICALS
20 GA. STRAP AT 32" O.C.
2x4 AT 32" O.C.
STUD
4–10d TO 2x VERTICALS

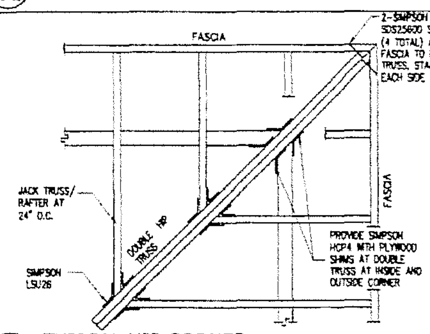
(C / S0-02) OUT-OF-PLANE WALL BRACING
NOT TO SCALE



CMU CAP BLOCK
2–#4 CONT. IN BOND BEAM AT TOP OF WALL AND 4'-0" o.c. MAX.
8" CMU WALL, SOLID GROUTED. SEE ARCH DWGS FOR TRASH ENCLOSURE PLAN AND LOCATION.
#5 VERT. AT 16" o.c. CENTERED
5'-4" MAX
SEE ARCH. DWG. FOR PAD ELEVATION AND SLOPES
#4 AT 18" o.c. EACH WAY
EJ
1–#4 CONT. T&B
60db LAP SPLICE
6" CONC.
6" COMPACTED BASECOURSE
8" MIN.
1'-0"
2'-6"
4–#4 CONT. BOTTOM WITH #4 TIES AT 12" o.c.
WF-3

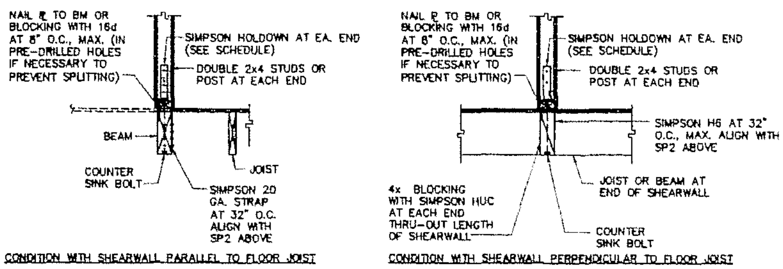


(D / S0-02) TYP. STUDWALL (NON-SHEARWALL) TO FLOOR CONNECTION
NOT TO SCALE



(E / S0-02) TYPICAL HIP CORNER
NOT TO SCALE

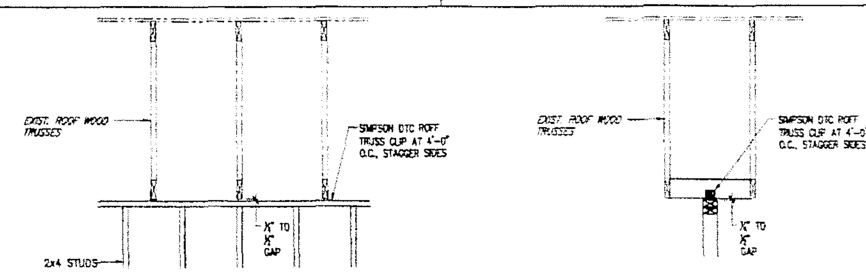
(F / S0-02) SECTION AT TRASH ENCLOSURE
SCALE: 3/4" = 1'-0"



NAIL PL TO BM OR BLOCKING WITH 16d AT 8" O.C., MAX. (IN PRE-DRILLED HOLES IF NECESSARY TO PREVENT SPLITTING)
SIMPSON HOLDOWN AT EA. END (SEE SCHEDULE)
DOUBLE 2x4 STUDS OR POST AT EACH END
BEAM
JOIST
COUNTER SINK BOLT
SIMPSON 20 GA. STRAP AT 32" O.C. ALIGN WITH SP2 ABOVE
CONDITION WITH SHEARWALL PARALLEL TO FLOOR JOIST
NAIL PL TO BM OR BLOCKING WITH 16d AT 8" O.C., MAX. (IN PRE-DRILLED HOLES IF NECESSARY TO PREVENT SPLITTING)
SIMPSON HOLDOWN AT EA. END (SEE SCHEDULE)
DOUBLE 2x4 STUDS OR POST AT EACH END
SIMPSON H6 AT 32" O.C., MAX. ALIGN WITH SP2 ABOVE
4x BLOCKING WITH SIMPSON HUC AT EACH END THRU-OUT LENGTH OF SHEARWALL
JOIST OR BEAM AT END OF SHEARWALL
COUNTER SINK BOLT
CONDITION WITH SHEARWALL PERPENDICULAR TO FLOOR JOIST

FOR SHEARWALLS ON 2nd FLR WHICH DOES NOT CONTINUE TO 1st FLOOR

(G / S0-02) DETAIL OF SHEARWALL END POST/DBL STD & NAILING REQ'D AT 2ND FLOOR
NOT TO SCALE

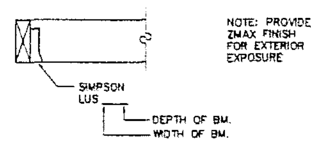


(H / S0-02) TYP. NON-BEARING STUDWALL TO ROOF CONNECTION
NOT TO SCALE

WOOD:
1. ALL WOOD STRUCTURAL MEMBERS SHALL BE DOUGLAS FIR AND SHALL MEET THE FOLLOWING MINIMUM GRADES AS ESTABLISHED BY THE WEST COAST LUMBER INSPECTION BUREAU:
   - BEAMS .... NO. 1
   - JOISTS/RAFTERS/TRUSS .... NO. 1
   - POSTS AND STUDS .... NO. 1
   - BLOCKING, PLATES, LEDGERS ETC. .... NO. 2
2. PROVIDE 30# FELT BELOW ALL PLATES RESTING ON CONCRETE OR MASONRY.
3. PROVIDE STANDARD WASHERS AT ALL BOLTS AND NUTS BEARING ON WOOD.
4. HOLES THRU PLATES AND STUDS SHALL BE CENTERED IN THE MEMBER AND SHALL NOT EXCEED 1/3 THE PLATE WIDTH.
5. MINIMUM NAILING SHALL COMPLY WITH TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE.
6. ALL PREFABRICATED METAL HANGERS AND CONNECTORS NOTED IN THE DRAWINGS SHALL BE "SIMPSON STRONG-TIE" CONNECTORS, WITH Z-MAX COATING, OR APPROVED EQUALS.
7. ALL WOOD STRUCTURAL MEMBERS SHALL BE TREATED AGAINST ROT AND INSECT DAMAGE. SEE SPECIFICATIONS
8. PROVIDE 2X CONTINUOUS STRUCTURAL FASCIA AT ALL EAVES. FASCIA SUPPORTS HIPS AND LAST RAFTER ON GABLED ROOFS. DO NOT SPLICE FASCIA WITHIN 12'-0" OF CORNERS.

WOOD (CONTINUED):
9. PLYWOOD SHEATHING SHALL BE STRUCTURAL I CONFORMING TO U.S. COMMERCIAL STANDARD PS 1-74. EXCEPT AS NOTED OTHERWISE FOR SPECIAL SHEAR WALL AND DIAPHRAGM CONDITIONS, PROVIDE THE FOLLOWING MINIMUM ATTACHMENT AT ALL SUPPORTED EDGES.
   - ½" PLYWOOD. .... 8d AT 6"o.c.
   - ⅝" PLYWOOD. .... 10d AT 6"o.c.
   - ¾" PLYWOOD. .... 10d AT 6"o.c.
10. ALL PREFABRICATED METAL CONNECTORS SHALL BE BY SIMPSON STRONG-TIE COMPANY.
11. ALL METAL CONNECTORS AND ANCHOR BOLTS SHALL BE HOT-DIPPED GALVANIZED.

GLU-LAM BEAMS:
1. ALL GLUE LAMINATED BEAMS SHALL BE DOUGLAS FIR, 2,400 F SERIES, WITH EXTERIOR TYPE ADHESIVE.
2. ALL BEAMS SHALL BE INDUSTRIAL GRADE, UNLESS NOTED OTHERWISE.
3. ALL LAMINATIONS FOR "GLU-LAM" BEAMS SHALL BE 1-1/2" THICK AND OF WIDTH SHOWN OR NOTED. ALL LAMINATIONS SHALL BE PARALLEL TO THE BOTTOM EDGE OF THE BEAM.
4. ALL GLUE LAMINATED BEAMS SHALL DISPLAY AN A.I.T.C. QUALITY STAMP CERTIFYING COMPLIANCE WITH VOLUNTARY PRODUCT STANDARDS PS-56.
5. ALL BEAMS SHALL HAVE STANDARD CAMBER BASED ON A RADIUS OF 1600 FEET UNLESS OTHERWISE NOTED ON PLAN.



NOTE: PROVIDE ZMAX FINISH FOR EXTERIOR EXPOSURE

(J / S0-02) TYP. 4x BM TO BM CONNECTION
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

TYPICAL DETAILS

SLSH & ASSOC., INC.

S0-02

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS PRIOR TO STARTING WORK. ALL DISCREPANCIES SHALL BE PROMPTLY REPORTED TO THE ENGINEER.
2. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
3. ALL WORK SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC), LATEST EDITION, AS ADOPTED BY THE STATE OF HAWAII.
4. UNLESS SPECIFICALLY DETAILED ELSEWHERE, CONTRACTOR SHALL FOLLOW TYPICAL DETAILS ON SHEETS S0-01 THROUGH S0-03.
5. WHERE CONDITIONS HAVE NOT BEEN SPECIFICALLY INDICATED BUT ARE SIMILAR TO DETAILS SHOWN ON SHEETS S0-01 THROUGH S0-03, MODIFY TYPICAL DETAILS TO MEET SPECIAL CONDITIONS.
6. STRUCTURAL DRAWINGS WHERE INDICATED HAVE BEEN DRAWN TO APPROXIMATE SCALE. UNLESS DRAWING SPECIFICALLY PROVIDES A DIMENSION, THE CONTRACTOR SHALL NOT USE OR SCALE STRUCTURAL DRAWINGS TO DETERMINE DIMENSIONS.
7. PRIOR TO ANY DEMOLITION AND DURING CONSTRUCTION, THE EXISTING STRUCTURES SHALL BE SHORED AS REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

REINFORCING STEEL

1. UNLESS OTHERWISE INDICATED ON PLANS AND/OR SCHEDULE, ALL REINFORCING STEEL SHALL BE HIGH STRENGTH GRADE DEFORMED BARS WHICH SHALL CONFORM TO THE STANDARD SPECIFICATION OF ASTM A615 GRADE 60. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706, GRADE 60. FOR SPECIAL CHORD REINFORCEMENT ASTM 615 GRADE 75 BARS SHALL BE USED AS SPECIFIED ON PLANS.
2. LOW HYDROGEN WELDING RODS SHALL BE USED FOR ALL WELDING TO REINFORCING BARS.
3. REINFORCING SHALL BE SPLICED ONLY AS SHOWN OR NOTED. SPLICES AT OTHER LOCATIONS SHALL BE MADE AWAY FROM POINTS OF MAXIMUM STRESS AND APPROVED BY THE ENGINEER. SEE DETAILS FOR "LAP SPLICES".
4. BARS NOTED AS "CONT." VERTICAL AND HORIZONTAL WALL REINFORCING AND COLUMN REINFORCING SHALL HAVE A MINIMUM SPLICE EQUAL TO 48 BAR DIAMETERS BUT NOT LESS THAN 24 INCHES.
5. WHERE MECHANICAL SPLICES, ARE REQUIRED, SPLICES SHALL BE ABLE TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR AND SHALL BE STAGGERED 3'-0" BETWEEN ADJACENT BARS.
6. PROVIDE DOWELS IN FOOTINGS THE SAME SIZE AND NUMBER AND IN THE SAME LOCATION AS VERTICAL COLUMN REINFORCING. DOWELS SHALL HAVE A MINIMUM PROJECTION EQUAL TO 48 BAR DIAMETERS BUT NOT LESS THAN 24 INCHES.
7. ALL REINFORCING STEEL, ANCHOR BOLTS AND OTHER INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
8. MINIMUM CONCRETE COVER:

   A.) MINIMUM COVER FOR CAST-IN-PLACE CONCRETE (NON-PRESTRESSED):
   THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

	COVER (IN)
(1) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
(2) FORMED CONCRETE SURFACES EXPOSED TO EARTH OR WEATHER:	
NO. 6 THROUGH NO. 18 BARS	2"
NO. 5 BAR, W31 OR D31 WIRE, AND SMALLER	1½"
(3) CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALL, JOISTS: NO. 14 AND NO. 18 BARS	1½"
NO. 11 BAR AND SMALLER	¾"
BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1½"

   C.) CONCRETE COVER TOLERANCE SHALL BE AS FOLLOWS:

(1) FORMED SOFFITS OR MEMBERS 4" OR LESS IN THICKNESS	+⅜, -¼"
(2) MEMBERS 12" THICK OR LESS	±⅜"
(3) MEMBERS GREATER THAN 12" THICK	±½"

   FOR ALL CASES, THE COVER SHALL NOT BE LESS THAN ⅔ OF WHAT IS INDICATED AND REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.

   D.) WHEN THE IBC REQUIRES A THICKNESS OF COVER FOR FIRE PROTECTION GREATER THAN THE MINIMUM CONCRETE STATED ABOVE, SUCH GREATER THICKNESS SHALL BE USED.

CONCRETE BLOCK MASONRY

1. ALL MASONRY WORK SHALL CONFORM TO ACI 530-05.
2. CONCRETE BLOCK SHALL BE TYPE II HOLLOW LOAD BEARING UNITS.
3. MASONRY MORTAR SHALL BE TYPE "M", WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI CONFORMING TO ASTM C270.
3. MASONRY GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI.
4. ALL CELLS SHALL BE GROUTED SOLID. GROUT IN LIFTS NOT TO EXCEED 8'-0".
5. UNLESS NOTED OTHERWISE, ALL WALLS SHALL BE CONSTRUCTED IN CONVENTIONAL RUNNING BOND.
6. AT CMU WALLS PROVIDE HORIZONTAL JOINT REINFORCING AT 16" O.C.
7. WIRE POSITIONERS – CMU WALL REINFORCING SHALL BE SECURED AGAINST DISPLACEMENT BY GALVANIZED NO. 9 GAUGE WIRE POSITIONERS SPACED AT NOT MORE THAN 200 TIMES THE BAR DIAMETER.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05.
2. SLEEVES EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. PIPE MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES BUT SHALL NOT BE EMBEDDED THEREIN.
3. SECURE ALL BOLTS, ANCHORS, INSERTS, ETC. AND VERIFY ALL GROOVES, SLOTS, AND FINISHES PRIOR TO PLACING CONCRETE.
4. VERIFY LOCATIONS AND DIMENSIONS OF SLOTS, ANCHORS, DUCTS, ETC., RELATING TO MECHANICAL, ELECTRICAL AND ARCHITECTURAL WORK BEFORE POURING CONCRETE.
5. ALL CONCRETE WORK SHALL BE THOROUGHLY CONSOLIDATED DURING PLACEMENT USING A MECHANICAL VIBRATOR. BACKUP (EXTRA) VIBRATOR(S) SHALL BE PRESENT AT EACH FOR IN CASE OF FAILURE.
6. ALL CONCRETE SHALL BE CURED FOR A PERIOD OF NOT LESS THAN 7 DAYS.
7. LOCATIONS OF ALL CONSTRUCTION OR COLD JOINTS SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.
8. 48 HOURS PRIOR TO THE POURING OF ANY STRUCTURAL CONCRETE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO AN INSPECTION CAN BE MADE OF ALL FORMS AND REINFORCING STEEL.
9. THE 28-DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE AS FOLLOWS:

	STRENGTH (PSI)	MAX. AGGREGATE	W/C RATIO
BUILDING SLAB ON GRADE. EXTERIOR WALKWAY AND LANDINGS	4,500	1½"	0.45
FOOTINGS AND GRADE BEAMS	4,500	1½"	0.45

EPOXIED ANCHORS:

1. ADHESIVE SHALL BE AN INJECTABLE TWO-COMPONENT EPOXY SUCH AS SIMPSON SET-XP, HILTI HIT RE-500 SD OR APPROVED EQUAL.
2. INSTALLATION OF EPOXIED ANCHORS SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS.
3. THREADED ANCHOR RODS SHALL BE HOT DIP GALVANIZED AND CONFORM TO ASTM A-193, GRADE B7. THREADED ANCHOR RODS SHALL BE UNC FULLY THREADED, CLEAN, STRIAGHT AND FREE OF INDENTATIONS OR OTHER DEFECTS ALONG THEIR LENGTH.
4. HOLES SHALL BE DRILLED WITH A CARBIDE-TIPPED DRILL BIT. IF HOLES ARE CORE DRILLED WITH DIAMOND-CORE BITS, EPOXY ADHESIVE SELECTED FOR USE BY THE CONTRACTOR SHALL BE SUITABLE FOR THIS APPLICATION WITH NO REDUCTION IN PUBLISHED ALLOWABLE SHEAR AND TENSION LOADS.
5. DIAMETER OF HOLES SHALL BE EQUAL TO THREADED ROD DIAMETER +⅛".
6. ANCHORS SHALL BE INSTALLED IN CONCRETE/CMU THAT HAS REACHED ITS FULL DESIGN COMPRESSIVE STRENGTH.
7. INSTALLATION OF EPOXIED ANCHORS SHALL BE PERFORMED UNDER THE SUPERVISION OF A SPECIAL INSPECTOR IN ACCORDANCE WITH SECTIONS 1704.4 AND 1704.13 OF THE IBC. THE SPECIAL INSPECTOR MUST BE ON THE JOBSITE TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE/CMU COMPRESSIVE STRENGTH, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE.

DESIGN LOADS

1. SLOPED ROOF LIVE LOAD: .... 20 PSF
2. FLOOR LIVE LOADS:
   RESIDENTIAL .... 40 PSF
   STAIRS .... 100 PSF
3. WIND 105 MPH PER IBC, EXPOSURE C, I_w=1.0, K_{zt} = 1.6
4. SEISMIC, PER IBC, S_s=0.98, S_1=0.252, I_E=1.0, SITE CLASS D
5. ALL COMPONENTS TO BUILDING SHALL BE SECURED PROPERLY TO RESIST LATERAL SEISMIC FORCES IN ACCORDANCE TO THE IBC. DESIGN OF ATTACHMENTS FOR COMPONENTS SHALL BE THE RESPONSIBILITY OF SUB-CONTRACTOR INSTALLAING SUCH COMPONENT

SPECIAL INSPECTION REQUIREMENTS LIST BELOW

SPECIAL INSPECTION REQUIREMENTS:

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR FOR WORK REQUIRING SPECIAL INSPECTION PER CHAPTER 17 OF THE 2006 IBC AS ADOPTED BY THE COUNTY OF MAUI.
2. SPECIAL INSPECTION FIRM SHALL HAVE AT LEAST 6 YEARS OF EXPERIENCE AND SHALL BE CERTIFIED WITHIN THE BUILDING DEPARTMENT JURISDICTION OF CONSTRUCTION (IF SUCH CERTIFICATION EXIST).
3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SPECIAL INSPECTOR TO ENSURE THAT ALL ELEMENTS REQUIRING SPECIAL INSPECTION ARE INSPECTED.
4. SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING TYPES OF WORK:

   A. CONCRETE:
   OBSERVE THE TAKING OF TEST SPECIMENS AND THE PLACING OF CONCRETE FOR ALL ELEMENTS.

   B. REINFORCING STEEL:
   OBSERVE THE PLACEMENT OF ALL REINFORCING. THE SPECIAL INSPECTOR NEED NOT BE PRESENT CONTINUOUSLY DURING THE PLACING OF REINFORCING STEEL, PROVIDED HE HAS INSPECTED FOR CONFORMANCE WITH THE APPROVED PLANS PRIOR TO THE CLOSING OF FORMS FOR THE DELIVERY OF CONCRETE TO THE JOBSITE.

   C. ANCHOR BOLTS FOR STEEL COLUMNS AND POST

   D. EXPANSION BOLTS AND EPOXIED ANCHORS/REBAR

   E. CONTINUOUS LOAD PATH AND SHEARWALL HOLD DOWNS

CONCRETE REPAIR/REHABILITATION

PROJECT CONDITIONS:

1. DO NOT APPLY MATERIAL IF IT IS RAINING OR IF RAIN IS IMMINENT.
2. PRECAUTIONS SHOULD BE TAKEN TO AVOID DAMAGE TO ANY SURFACE NEAR THE WORK ZONE DUE TO SPILLAGE.
3. LEAVE FINISHED WORK IN NEAT, CLEAN CONDITION WITH NO EVIDENCE OF SPILL OVER ONTO ADJACENT SURFACES.

PRODUCTS:

1. ANTI-CORROSION PROTECTIVE COATING (CORROSION INHIBITOR): TWO-COMPONENT, ACRYLIC RESIN EPOXY SYSTEM FORMULATED TO INHIBIT THE CORROSION OF REINFORCING STEEL AND TO ACT AS A BONDING AGENT, SUCH AS: SIKA ARMATEC 110 EPOCEM, MASTER EMACOP124,OR APPROVED EQUAL.
2. FAST SETTING, HIGH STRENGTH PATCHING MORTAR (POLYMER MODIFIED MORTAR) FOR HORIZONTAL APPLICATIONS: ACRYLIC POLYMER-MODIFIED, PORTLAND CEMENT BASED, TROWEL-GRADE PATCHING MORTAR. CONFORM TO REQUIREMENTS OF ASTM C 884, SUCH AS SIKATOP 122 PLUS, MASTER EMACO R310 OR T430, OR APPROVED EQUAL.
3. FAST SETTING, HIGH STRENGTH PATCHING MORTAR (POLYMER MODIFIED MORTAR) FOR VERTICAL APPLICATIONS: TWO-COMPONENT (OR SINGLE COMPONENT), ACRYLIC POLYMER-MODIFIED, PORTLAND CEMENT BASED, NON-SAG PATCHING MORTAR. CONFORM TO REQUIREMENTS OF ASTM C 884, SUCH AS SIKATOP 123 PLUS, MASTER EMACO N425, OR APPROVED EQUAL.

PREPARATION –GENERAL:

1. ACI 503R, ACI 503.2, ACI 503.4 FOR EPOXY RESIN SYSTEMS. MIX THE PATCHING MATERIALS WITH OR WITHOUT FILLERS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL APPLICATIONS OF THE MIXED MATERIALS SHALL BE PERFORMED WITHIN THE WORKING LIFE OR POT LIFE OF THE PATCHING SYSTEM. UNUSED MIXED MATERIALS WHICH HAVE REACHED THE END OF THE WORKING OR POT LIFE SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE. FIELD MIXING AND SIZE OF BATCH SHALL BE DETERMINED BY THE CONTRACTOR. PATCHING SYSTEMS SHALL BE PROVIDED AS INDICATED AND REQUIRED BY SPECIFICATIONS.
2. CLEANING: PREPARE ALL SURFACES REQUIRING PATCHING SO THAT THEY WILL BE STRUCTURALLY SOUND, CLEAN, AND FREE OF DIRT, LOOSE CONCRETE, LOOSE MORTAR PARTICLES, PAINT, FILMS, PROTECTIVE COATINGS, EFFLORESCENCE, LAITANCE, AND OTHER MATTER DETRIMENTAL TO PROPER ADHESION.
3. CHECK AREAS AROUND CRACKS, BLISTERS, OLD PATCHES, AND RUST SPOTS BY TAPPING SURFACE WITH A HAMMER, OTHER BLUNT INSTRUMENT, OR USING A CHAIN. SOUND FOR LOOSE OR HOLLOW AREAS AND MARK AREAS FOR REMOVAL OF UNSOUND CONCRETE OR MORTAR.
4. ALL AREAS WHERE CRACKS EXIST AND THE CONCRETE IS NOT IN A STATE OF CONCRETE DELAMINATION AS DETERMINED BY SOUNDING WITH A HAMMER OR CHAIN SHALL BE CLEANED OF ALL DIRT, LOOSE MORTAR PARTICLES, PAINT, FILMS, LAITANCE AND ALL OTHER MORTAR DETRIMENTAL TO PROPER ADHESION. .
5. REMOVE UNSOUND MATERIALS AND FILMS BY MEANS OF CHIPPING, SAW CUTTING, BUSH HAMMERING, NEEDLE GUNNING, SAND BLASTING, OR OTHER SUITABLE METHOD.
6. WASH DEBRIS FROM WORK SURFACES WITH CLEAN WATER. REMOVE ANY REMAINING EFFLORESCENCE BY ACID WASH, MURIATIC OR SIMILAR, AND RINSE WITH CLEAN WATER.

PREPARATION – REINFORCEMENT:

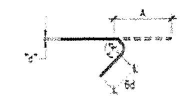
1. MECHANICALLY REMOVE ALL RUST AND LOOSE MATERIAL FROM ALL EXPOSED RUSTED REINFORCING STEEL TO SOUND METAL BY POWER BRUSHING, NEEDLE SCALER, OR SAND BLASTING.
2. APPLY ANTI-CORROSION PROTECTIVE COATING ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS TO ALL EXPOSED AND CLEANED REINFORCEMENT BARS AND CONCRETE SURFACES TO RECEIVE PATCH.
3. USING BRUSH OR ROLLER, SCRUB PRIMER BONDING AGENT ONTO WORK SURFACES WHILE ALSO COMPLETELY COATING EXPOSED REINFORCING STEEL AND CONCRETE.
4. DO NOT RESURFACE OVER HARDENED PRIMER BONDING AGENT. IF PRIMER BONDING AGENT BECOMES TACK FREE, MECHANICALLY ROUGHEN SURFACE AND REPRIME.

SPALL REPAIR (INCLUDES CRACKED/CLOSED SPALL CORNER OF PEDESTAL):

1. SAW CUT OR ROUT OUT SPALLS TO A MINIMUM WIDTH AND DEPTH OF 1/2 INCH.
2. REFER TO GENERAL PREPARATION INSTRUCTIONS ABOVE.
3. IF REINFORCING BAR IS EXPOSED, REFER TO REINFORCING PREPARATION INSTRUCTIONS ABOVE.
4. MECHANICALLY SCARIFY WORK SURFACES TO OBTAIN AGGREGATE FRACTURE WITHIN A MINIMUM SURFACE PROFILE OF PLUS OR MINUS 1/8 INCH.
5. APPLY PRIMER BONDING AGENT PER ABOVE INSTRUCTIONS AND MANUFACTURER'S PRINTED INSTRUCTIONS.
6. WHILE PRIMER BONDING AGENT IS STILL TACKY, MIX AND APPLY PREPARED PATCHING MORTAR TO PREPARED SPALL FOLLOWING MANUFACTURER'S PRINTED INSTRUCTIONS.
7. PLACE PATCHING MATERIAL IN THIN LAYERS AS RECOMMENDED BY THE MANUFACTURER. EACH INTERMEDIATE LAYER SHALL BE CROSS-SCRATCHED FOR MECHANICAL BONDING. ALL LAYERS FOR EACH PATCH SHALL BE PLACED ON THE SAME DAY. USE HAND TEMPERS TO CONSOLIDATE THE PATCHING MATERIAL. LEVEL EACH LAYER AND SCREED THE FINAL SURFACE. REMOVE EXCESS PATCHING MATERIAL ON ADJACENT SURFACES BEFORE IT HARDENS. DO NOT FEATHER OUT ONTO ADJACENT SURFACES. UPON COMPLETION OF FINISHING OPERATIONS, APPLY EVAPORATION REDUCER AND THEN APPLY CURING COMPOUND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PROTECT PATCHES WITH WATERTIGHT FORMS AND/OR COVERS UNTIL THE PATCHES ARE PROPERLY CURED.
8. USE PROPER PATCHING MATERIAL DEPENDING ON IF THE LOCATION OF THE SPALL IS HORIZONTAL, VERTICAL, OR OVERHEAD.
9. MINIMUM DEPTH OF SPALL PATCH OVER REINFORCING SHALL BE 1 INCH.
10. DO NOT FEATHER EDGES OF SPALL PATCH. SAW CUT OR ROUT EDGE OF REPAIR TO OBTAIN A 1/2 INCH MINIMUM VERTICAL EDGE TO REPAIRED AREA.
11. FINISHED PATCHED SPALL SHOULD MATCH EXISTING SURFACES IN TEXTURE AND APPEARANCE.
12. AT EXPOSED AREAS, GRIND THE REPAIRED PATCH FLUSH WITH SURROUNDING SURFACES; PATCH TEXTURE TO MATCH EXISTING.

ABBREVIATIONS

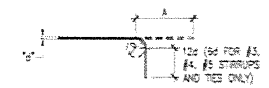
A.B.	ANCHOR BOLT	HSB	HIGH STRENGHT BOLT
ARCH.	ARCHITECTURAL OR ARCHITECT	INT.	INTERIOR
@	AT	JT	JOINT
BAL.	BALANCE	KSF	KIPS PER SQUARE FOOT
BOT.	BOTTOM	LONG.	LONGITUDINAL
BM.	BEAM	MAX.	MAXIMUM
B.T.B.	BASALTIC TERMITE BARRIER	M.B.	MACHINE BOLT
C.I.P.	CAST IN PLACE	MECH.	MECHANICAL
C.J.	CONSTRUCTION OR CONTROL JOINT	MIN.	MINIMUM
C.J.P.	COMPLETE JOINT PENETRATION WELD	N.T.S.	NOT TO SCALE
CL	CENTER LINE	NO.	NUMBER
CLR.	CLEAR	O.C.	ON CENTER
CMU	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
COL.	COLUMN	PL.	PLATE
CONC.	CONCRETE	PSI.	POUNDS PER SQUARE INCH
CONT.	CONTINUOUS	PSF	POUNDS PER SQUARE FOOT
CONN.	CONNECTION	R.F. OR	REINFORCED OR
Db	REBAR DIAMETER	REINF.	REINFORCEMENT
DIA. OR ø	DIAMETER	REQ'D.	REQUIRED
DIAG.	DIAGONAL	SHT.	SHEET
DIMS.	DIMENSIONS	SP.	SPACE OR SPACES
DET.	DETAIL	SIM.	SIMILAR
EA.	EACH	SQ.	SQUARE
E.J.	EXPANSION JOINT	STD.	STANDARD
E.F.	EACH FACE	T & B	TOP AND BOTTOM
EL	ELEVATOR	THK.	THICK
ELEV.	ELEVATION	T.O.C.	TOP OF CONCRETE
EQ.	EQUAL	T.O.F.	TOP OF FOOTING
EXP.	EXPANSION	T.O.S.	TOP OF SLAB
EXT.	EXTERIOR	T.O.W.	TOP OF WALL
E.W.	EACH WAY	TRANS.	TRANSVERSE
F.P.	FULL PENETRATION	TYP.	TYPICAL
FT.	FOOT OR FEET	VERT.	VERTICAL
FTG.	FOOTING	W/	WITH
GA.	GAGE	W/O	WITH OUT
GALV.	GALVANIZE	W.J.	WALL JOINT
HDG OR H.D.G.	HOT DIPPED GALVANIZED	W.W.F.	WELDED WIRE FABRIC
HORIZ.	HORIZONTAL	W.W.M.	WELDED WIRE MESH



BAR BEND 135°

STANDARD HOOK 180°

BAR SIZE	D
#3, #4, #5, #6, #7, #8	6d
#9, #10, #11	8d
#14, #18	10d



BAR BEND 90°

MINIMUM EXTENSION LENGTHS "A"

BAR SIZE	STANDARD HOOKS		TIES AND STIRRUPS	
	180° HOOKS	90° HOOKS	90° HOOKS	135° HOOKS
#3	5"	7"	5"	6"
#4	8"	9"	6"	7"
#5	9"	11"	7"	9"
#6	11"	13"	14"	12"
#7	12"	15"	16"	14"
#8	14"	17"	19"	15"

A / S0-00 TYPICAL REBAR BENDING

NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	CHK. BY	DATE

BEVERLY ISHII-NAKAYAMA LICENSED PROFESSIONAL ENGINEER No. 7138-S HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation. Expiration Date of the License: 4/30/16

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

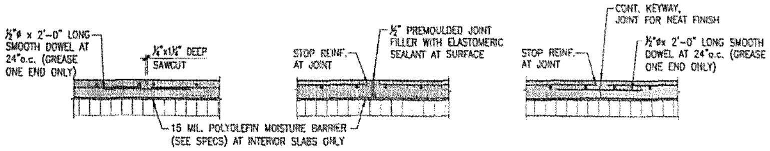
GENERAL NOTES AND TYPICAL DETAILS

SLSH & ASSOC., INC.
1916 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO.: CC-11-5362

SHEET: S0-00

DESIGNED BY: SKN | CHECKED BY: HL | DATE: 9-30-2015
DRAWN BY: MM | APPROVED BY: HL



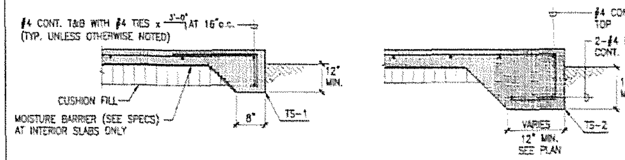
TYP. CONTROL JOINT (C.J.)

TYP. EXPANSION JOINT (E.J)

TYP. CONSTRUCTION JOINT

SAWCUT SHALL BE PERFORMED WITHIN 8 HOURS OF POUR AND AS SOON AS SLAB HAS SET AND IS FIRM ENOUGH SUCH THAT SAWCUT BLADE DOES NOT RIP, TEAR, OR DAMAGE SLAB OR UNRAVEL EDGES

(A / S0-01) TYPICAL SLAB JOINT DETAILS
NOT TO SCALE

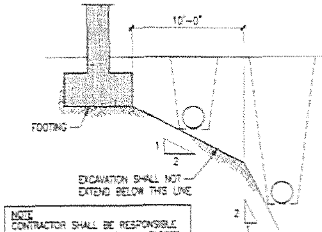


TS-1

TS-2

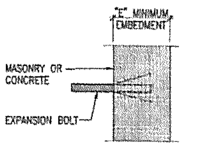
1. THIS DETAIL IS INTENDED TO SHOW DIMENSION OF THICKENED EDGE SLAB ONLY.
2. ALL SIDEWALK EDGES SHALL HAVE TS-1.

(B / S0-01) THICKENED SLAB DETAIL (TS-1 and TS-2)
NOT TO SCALE



NOTE
CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TRENCH SLOPES BY SHORING AS REQUIRED.

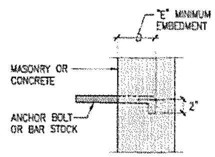
(C / S0-01) TRENCH DETAIL
NOT TO SCALE



NOTES:
1. GROUT ALL CELLS WITH BOLTS FULL HEIGHT.
2. ALL EXPANSION BOLTS SHALL BE HILTI KWIK BOLT III, HOT DIP GALV. ANCHORS OR EQUAL, HAVING THE FOLLOWING MINIMUM LOAD VALUES.
3. I.C.C REPORT SHALL BE SUBMITTED FOR REVIEW

BOLT SIZE	MINIMUM "E"	MINIMUM ALLOW. SHEAR IN CONC. (#)	MINIMUM ALLOW. SHEAR IN MASONRY (#)
½" DIA.	4"	1550	550
⅝" DIA.	4"	1800	650
¾" DIA.	5"	2100	800
⅞" DIA.	6"	2500	1000
1" DIA.	7"		

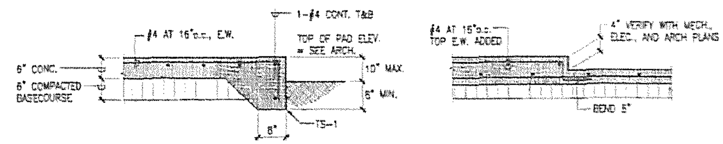
(D / S0-01) EXPANSION BOLT
NOT TO SCALE



NOTES:
1. GROUT ALL CELLS WITH BOLTS FULL HEIGHT.
2. UNLESS NOTED OTHERWISE, THESE ANCHOR BOLT DETAILS SHALL APPLY
3. ALL ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED.

BOLT SIZE	MINIMUM "E"
½" DIA.	6"
⅝" DIA.	8"
¾" DIA.	12"
⅞" DIA.	12"

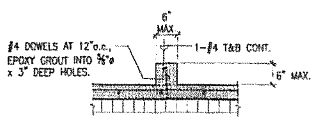
(E / S0-01) ANCHOR BOLT
NOT TO SCALE



AT EXTERIOR CONDITION

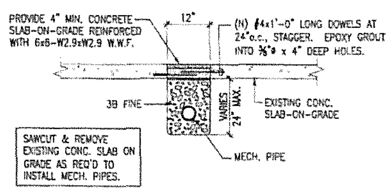
INTERIOR SLAB-ON-GRADE CONDITION

(F / S0-01) TYPICAL RAISED PAD AT SLAB-ON-GRADE CONDITION
NOT TO SCALE



PLAN

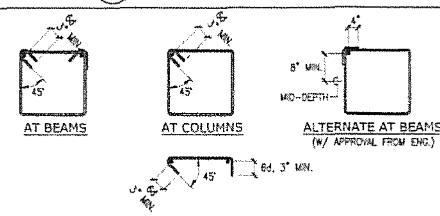
(G / S0-01) TYP. CURB AT BASE OF STUD WALL
NOT TO SCALE



SAWCUT & REMOVE EXISTING CONC. SLAB ON GRADE AS REQ'D TO INSTALL MECH. PIPES.

REPAIR OF CONC. SLAB-ON-GRADE FOR MECH. PIPE INSTALLATION

(H / S0-01) SLAB ON GRADE REPAIR DETAIL
NOT TO SCALE



AT BEAMS

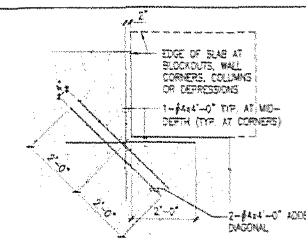
AT COLUMNS

ALTERNATE AT BEAMS (W/ APPROVAL FROM ENG.)

COLUMN CROSS TIES

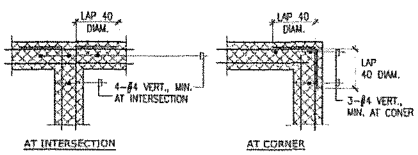
NOTES:
1. THESE DETAILS SHALL APPLY TO #3, #4, AND #5 BARS - GRADE 40 AND GRADE 60.
2. ALL BARS SHALL BE BENT COLD.
3. MINIMUM FINISHED BEND DIAMETER = 4d FOR #3, 4, AND #5 BARS.

(J / S0-01) TYPICAL STIRRUP AND TIE DETAIL
NOT TO SCALE



PLAN

(K / S0-01) TYP. S.O.G. RE-ENTRANT CORNER/ BLOCKOUT DETAIL
NOT TO SCALE

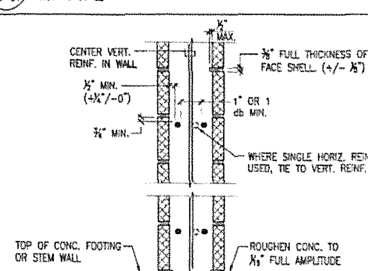


AT INTERSECTION

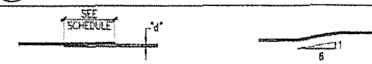
AT CORNER

TWO LAYERS OF REINF.

(L / S0-01) TYP. CMU WALL BOND BEAM REINFORCING
NOT TO SCALE



(M / S0-01) TYPICAL CMU DETAIL
NOT TO SCALE



LAP SPLICE

BAR OFFSET

BAR SIZE	f'c = 3000 PSI		f'c = 4000 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	24"	24"	24"	24"
#4	29"	24"	25"	24"
#5	36"	28"	31"	24"
#6	43"	33"	37"	29"
#7	63"	48"	54"	42"
#8	72"	55"	62"	48"
#9	81"	62"	70"	54"

NOTES
1. LAP SPLICE LENGTHS ARE FOR CLASS A LAP SPLICES ONLY.
2. LAP SPLICE LENGTHS ARE FOR GRADE 60 DEFORMED BARS.
3. LAP SPLICE LENGTHS SHALL BE IN ACCORDANCE WITH THIS TABLE, UNLESS OTHERWISE SHOWN OR NOTED.
4. FOR CLASS B LAP SPLICE, INCREASE LENGTHS SHOWN IN TABLE BY A FACTOR OF 1.3.
5. BOTTOM BARS AND INTERMEDIATE BARS WITH ≤ 12" OF CONC. BELOW, PROVIDE "OTHER BAR" LAP SPLICE.
6. TOP BARS AND INTERMEDIATE BARS WITH > 12" OF CONC. BELOW, PROVIDE "TOP BAR" LAP SPLICE.

(N / S0-01) TYPICAL LAP SPLICE DETAIL
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

BEVERLY ISHII-NAKAYAMA, LICENSED PROFESSIONAL ENGINEER, No. 7159-S, HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.
(Expiration Date of the License 4/30/16)

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

TYPICAL DETAILS

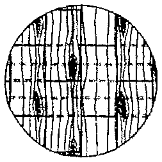
SLSH & ASSOC., INC.
1914 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO. CC-11-5362

DESIGNED BY: BKN · CHECKED BY: HL · DRAWN BY: MM · APPROVED BY: HL · DATE: 9-30-2015

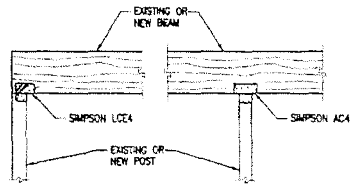
SHEET S0-01

SHT 47 of 103 SHEETS

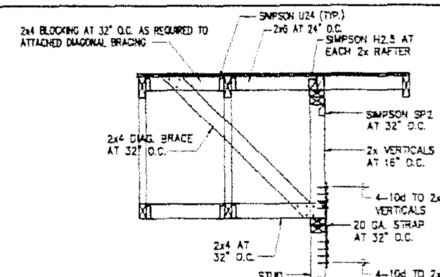


NOTE
1. LAY ALL PLYWOOD WITH FACE GRAIN ACROSS SUPPORTS.
2. STAGGER ALL PANELS.
3. UNLESS NOTED OTHERWISE, FOR SPECIAL SHEARWALL OR DIAPHRAGM LOCATIONS PROVIDE THE FOLLOWING MINIMUM NAILING:
   A. 1/2" PLYWOOD – 8d AT 6" O.C. ALL FRAMING.
   B. 5/8" PLYWOOD – 10d AT 6" O.C. ALL FRAMING.
   C. 3/4" PLYWOOD – 10d AT 6" O.C. ALL FRAMING.
4. PROVIDE SOLID BLOCKING AT ALL RIDGE, VALLEYS AND HIPS.

A / S0-02 TYP. PLYWOOD LAYOUT
NOT TO SCALE

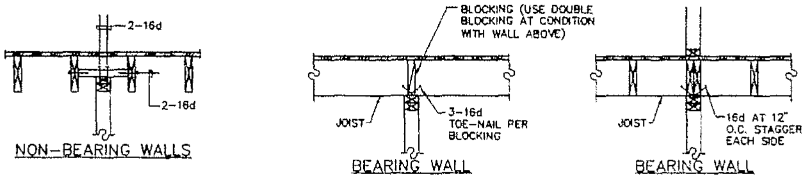


B / S0-02 TYP. BEAM TO POST CONNECTION
NOT TO SCALE

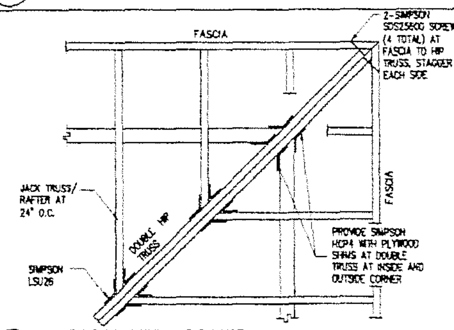


SIMPSON U24 (TYP.)
2x6 AT 24" O.C.
SIMPSON H2.5 AT EACH 2x RAFTER
2x4 BLOCKING AT 32" O.C. AS REQUIRED TO ATTACHED DIAGONAL BRACING
SIMPSON SP2 AT 32" O.C.
2x4 DIAG. BRACE AT 32" O.C.
2x VERTICALS AT 16" O.C.
4-10d TO 2x VERTICALS
20 GA. STRAP AT 32" O.C.
2x4 AT 32" O.C.
STUD
4-10d TO 2x VERTICALS

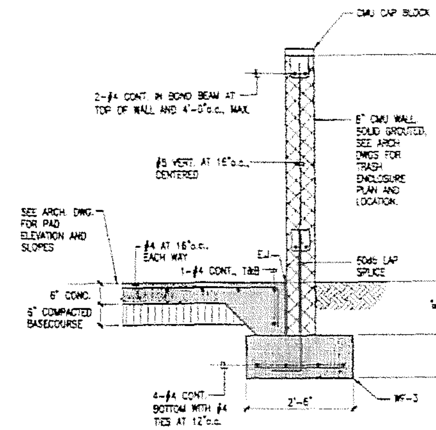
C / S0-02 OUT-OF-PLANE WALL BRACING
NOT TO SCALE



D / S0-02 TYP. STUDWALL (NON-SHEARWALL) TO FLOOR CONNECTION
NOT TO SCALE

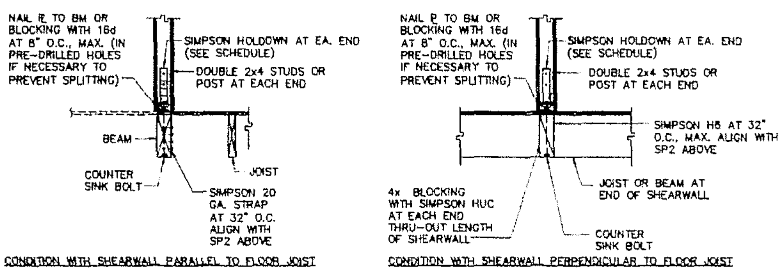


E / S0-02 TYPICAL HIP CORNER
NOT TO SCALE



CMU CAP BLOCK
2-#4 CONT. IN BOND BEAM AT TOP OF WALL AND 4'-0" o.c., MAX.
6" CMU WALL SOLID GROUTED, SEE ARCH DWGS FOR TRASH ENCLOSURE PLAN AND LOCATION.
#5 VERT. AT 16" o.c., CENTERED
5'-4" MAX.
SEE ARCH. DWG. FOR PAD ELEVATION AND SLOPES
#4 AT 16" o.c., EACH WAY
1-#4 CONT., T&B
EJ
50db LAP SPLICE
6" CONC.
5" COMPACTED BASECOURSE
8" MIN.
1'-0"
4-#4 CONT. BOTTOM WITH #4 TIES AT 12" o.c.
2'-6"
WF-3

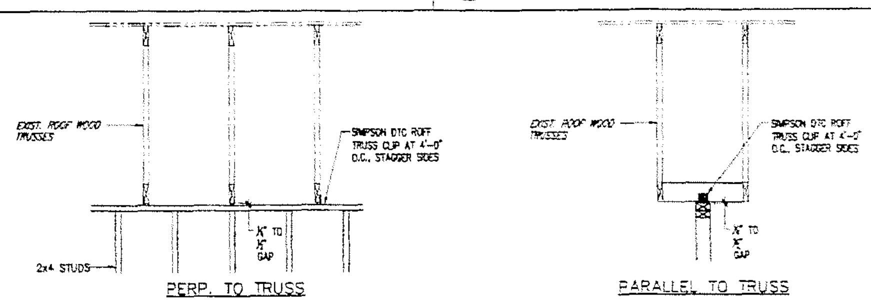
F / S0-02 SECTION AT TRASH ENCLOSURE
SCALE: 3/4" = 1'-0"



NAIL PL TO BM OR BLOCKING WITH 16d AT 8" O.C., MAX. (IN PRE-DRILLED HOLES IF NECESSARY TO PREVENT SPLITTING)
SIMPSON HOLDOWN AT EA. END (SEE SCHEDULE)
DOUBLE 2x4 STUDS OR POST AT EACH END
BEAM
JOIST
COUNTER SINK BOLT
SIMPSON 20 GA. STRAP AT 32" O.C. ALIGN WITH SP2 ABOVE
CONDITION WITH SHEARWALL PARALLEL TO FLOOR JOIST
NAIL PL TO BM OR BLOCKING WITH 16d AT 8" O.C., MAX. (IN PRE-DRILLED HOLES IF NECESSARY TO PREVENT SPLITTING)
SIMPSON HOLDOWN AT EA. END (SEE SCHEDULE)
DOUBLE 2x4 STUDS OR POST AT EACH END
SIMPSON H8 AT 32" O.C., MAX. ALIGN WITH SP2 ABOVE
JOIST OR BEAM AT END OF SHEARWALL
4x BLOCKING WITH SIMPSON HUC AT EACH END THRU-OUT LENGTH OF SHEARWALL
COUNTER SINK BOLT
CONDITION WITH SHEARWALL PERPENDICULAR TO FLOOR JOIST

FOR SHEARWALLS ON 2nd FLR WHICH DOES NOT CONTINUE TO 1st FLOOR

G / S0-02 DETAIL OF SHEARWALL END POST/DBL STD & NAILING REQ'D AT 2ND FLOOR
NOT TO SCALE



H / S0-02 TYP. NON-BEARING STUDWALL TO ROOF CONNECTION
NOT TO SCALE

WOOD:

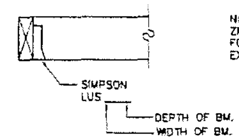
1. ALL WOOD STRUCTURAL MEMBERS SHALL BE DOUGLAS FIR AND SHALL MEET THE FOLLOWING MINIMUM GRADES AS ESTABLISHED BY THE WEST COAST LUMBER INSPECTION BUREAU:
   - BEAMS .... NO. 1
   - JOISTS/RAFTERS/TRUSS .... NO. 1
   - POSTS AND STUDS .... NO. 1
   - BLOCKING, PLATES, LEDGERS ETC. .... NO. 2
2. PROVIDE 30# FELT BELOW ALL PLATES RESTING ON CONCRETE OR MASONRY.
3. PROVIDE STANDARD WASHERS AT ALL BOLTS AND NUTS BEARING ON WOOD.
4. HOLES THRU PLATES AND STUDS SHALL BE CENTERED IN THE MEMBER AND SHALL NOT EXCEED 1/3 THE PLATE WIDTH.
5. MINIMUM NAILING SHALL COMPLY WITH TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE.
6. ALL PREFABRICATED METAL HANGERS AND CONNECTORS NOTED IN THE DRAWINGS SHALL BE "SIMPSON STRONG-TIE" CONNECTORS, WITH Z-MAX COATING, OR APPROVED EQUALS.
7. ALL WOOD STRUCTURAL MEMBERS SHALL BE TREATED AGAINST ROT AND INSECT DAMAGE. SEE SPECIFICATIONS
8. PROVIDE 2X CONTINUOUS STRUCTURAL FASCIA AT ALL EAVES. FASCIA SUPPORTS HIPS AND LAST RAFTER ON GABLED ROOFS. DO NOT SPLICE FASCIA WITHIN 12'-0" OF CORNERS.

WOOD (CONTINUED):

9. PLYWOOD SHEATHING SHALL BE STRUCTURAL I CONFORMING TO U.S. COMMERCIAL STANDARD PS 1-74. EXCEPT AS NOTED OTHERWISE FOR SPECIAL SHEAR WALL AND DIAPHRAGM CONDITIONS, PROVIDE THE FOLLOWING MINIMUM ATTACHMENT AT ALL SUPPORTED EDGES.
   - ½" PLYWOOD .... 8d AT 6"o.c.
   - ⅝" PLYWOOD .... 10d AT 6"o.c.
   - ¾" PLYWOOD .... 10d AT 6"o.c.
10. ALL PREFABRICATED METAL CONNECTORS SHALL BE BY SIMPSON STRONG-TIE COMPANY.
11. ALL METAL CONNECTORS AND ANCHOR BOLTS SHALL BE HOT-DIPPED GALVANIZED.

GLU-LAM BEAMS:

1. ALL GLUE LAMINATED BEAMS SHALL BE DOUGLAS FIR, 2,400 F SERIES, WITH EXTERIOR TYPE ADHESIVE.
2. ALL BEAMS SHALL BE INDUSTRIAL GRADE, UNLESS NOTED OTHERWISE.
3. ALL LAMINATIONS FOR "GLU-LAM" BEAMS SHALL BE 1-1/2" THICK AND OF WIDTH SHOWN OR NOTED. ALL LAMINATIONS SHALL BE PARALLEL TO THE BOTTOM EDGE OF THE BEAM.
4. ALL GLUE LAMINATED BEAMS SHALL DISPLAY AN A.I.T.C. QUALITY STAMP CERTIFYING COMPLIANCE WITH VOLUNTARY PRODUCT STANDARDS PS-56.
5. ALL BEAMS SHALL HAVE STANDARD CAMBER BASED ON A RADIUS OF 1600 FEET UNLESS OTHERWISE NOTED ON PLAN.



NOTE: PROVIDE ZMAX FINISH FOR EXTERIOR EXPOSURE

J / S0-02 TYP. 4x BM TO BM CONNECTION
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	DATE

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224BA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

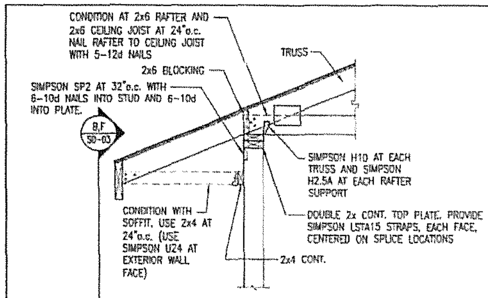
TYPICAL DETAILS

BEVERLY ISHII-NAKAYAMA — LICENSED PROFESSIONAL ENGINEER — HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

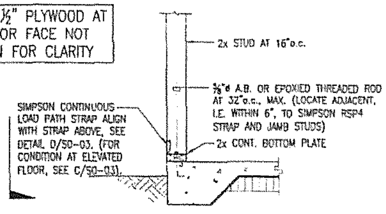
SLSH & ASSOC., INC.
1195 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII

S0-02


CONDITION AT 2x6 RAFTER AND 2x6 CEILING JOIST AT 24"o.c. NAIL RAFTER TO CEILING JOIST WITH 5-12d NAILS
TRUSS
2x6 BLOCKING
SIMPSON SP2 AT 32"o.c. WITH 6-10d NAILS INTO STUD AND 6-10d INTO PLATE.
B,F
S0-03
SIMPSON H10 AT EACH TRUSS AND SIMPSON H2.5A AT EACH RAFTER SUPPORT
CONDITION WITH SOFFIT, USE 2x4 AT 24"o.c. (USE SIMPSON U24 AT EXTERIOR WALL FACE)
DOUBLE 2x CONT. TOP PLATE. PROVIDE SIMPSON LSTA15 STRAPS, EACH FACE, CENTERED ON SPLICE LOCATIONS
2x4 CONT.

RAFTER STRAPPING AT EAVES

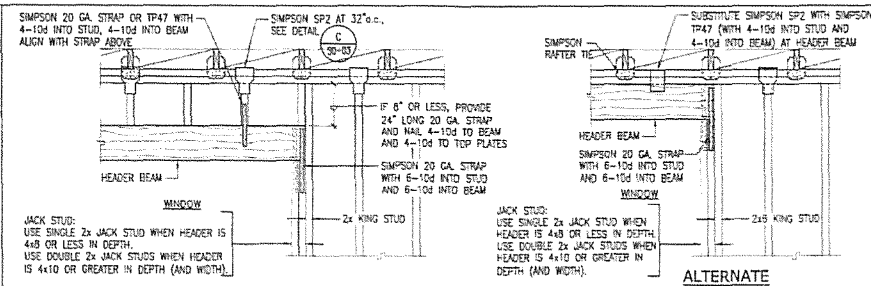
NOTE: ½" PLYWOOD AT EXTERIOR FACE NOT SHOWN FOR CLARITY


2x STUD AT 16"o.c.
⅝"ø A.B. OR EPOXIED THREADED ROD AT 32"o.c., MAX. (LOCATE ADJACENT, I.E. WITHIN 6", TO SIMPSON RSP4 STRAP AND JAMB STUDS)
SIMPSON CONTINUOUS LOAD PATH STRAP ALIGN WITH STRAP ABOVE, SEE DETAIL D/S0-03. (FOR CONDITION AT ELEVATED FLOOR, SEE C/S0-03).
2x CONT. BOTTOM PLATE

STRAPPING AT FOUNDATION

SECTION OF EXTERIOR (AND INTERIOR) WALLS SUPPORTING TRUSSES OR RAFTERS

A S0-03 NOT TO SCALE

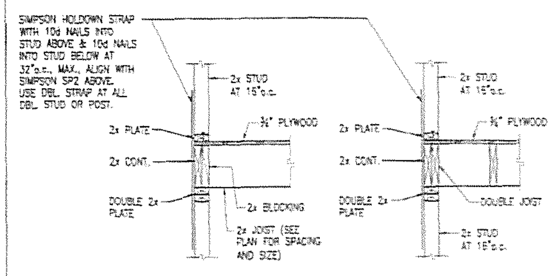

SIMPSON 20 GA. STRAP OR TP47 WITH 4-10d INTO STUD, 4-10d INTO BEAM ALIGN WITH STRAP ABOVE
SIMPSON SP2 AT 32"o.c., SEE DETAIL C S0-03
IF 8" OR LESS, PROVIDE 24" LONG 20 GA. STRAP AND NAIL 4-10d TO BEAM AND 4-10d TO TOP PLATES
HEADER BEAM
SIMPSON 20 GA. STRAP WITH 6-10d INTO STUD AND 6-10d INTO BEAM
WINDOW
JACK STUD: USE SINGLE 2x JACK STUD WHEN HEADER IS 4x8 OR LESS IN DEPTH. USE DOUBLE 2x JACK STUDS WHEN HEADER IS 4x10 OR GREATER IN DEPTH (AND WIDTH).
2x KING STUD
SUBSTITUTE SIMPSON SP2 WITH SIMPSON TP47 (WITH 4-10d INTO STUD AND 4-10d INTO BEAM) AT HEADER BEAM
SIMPSON RAFTER TIE
HEADER BEAM
SIMPSON 20 GA. STRAP WITH 6-10d INTO STUD AND 6-10d INTO BEAM
WINDOW
JACK STUD: USE SINGLE 2x JACK STUD WHEN HEADER IS 4x8 OR LESS IN DEPTH. USE DOUBLE 2x JACK STUDS WHEN HEADER IS 4x10 OR GREATER IN DEPTH (AND WIDTH).
2x6 KING STUD
ALTERNATE

CONDITION WITH HEADER BEAM BELOW TOP PLATES

CONDITION WITH HEADER BEAM DIRECTLY BELOW TOP PLATES

B DETAIL OF HEADER BENEATH ROOF

S0-03 SCALE: 3/4" = 1'-0"

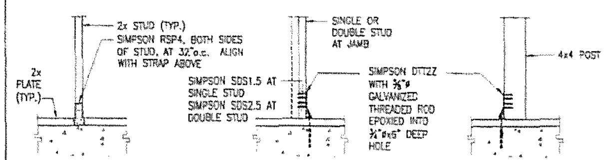

SIMPSON HOLDOWN STRAP WITH 10d NAILS INTO STUD ABOVE & 10d NAILS INTO STUD BELOW AT 32"o.c., MAX., ALIGN WITH SIMPSON SP2 ABOVE. USE DBL. STRAP AT ALL DBL. STUD OR POST.
2x STUD AT 16"o.c.
¾" PLYWOOD
2x PLATE
2x CONT.
DOUBLE 2x PLATE
2x BLOCKING
2x JOIST (SEE PLAN FOR SPACING AND SIZE)
2x STUD AT 16"o.c.
¾" PLYWOOD
2x PLATE
2x CONT.
DOUBLE 2x PLATE
DOUBLE JOIST
2x STUD AT 16"o.c.

PERPENDICULAR TO JOIST

PARALLEL TO JOIST

C TYP. SECTION AT EXTERIOR WALL

S0-03 NOT TO SCALE


2x STUD (TYP.)
SIMPSON RSP4, BOTH SIDES OF STUD, AT 32"o.c.. ALIGN WITH STRAP ABOVE
2x PLATE (TYP.)
SINGLE OR DOUBLE STUD AT JAMB
SIMPSON SDS1.5 AT SINGLE STUD SIMPSON SDS2.5 AT DOUBLE STUD
SIMPSON DTT2Z WITH ⅜"ø GALVANIZED THREADED ROD EPOXIED INTO ½"øx6" DEEP HOLE
4x4 POST

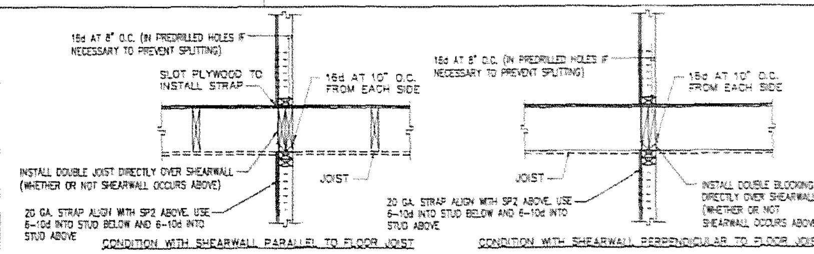
AT SINGLE STUD (AWAY FROM JAMB)

AT JAMB

AT 4x POST

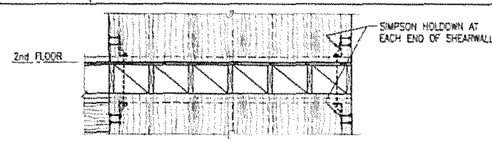
D DETAIL OF SILL PLATE STRAPPING

S0-03 SCALE: 3/4" = 1'-0"

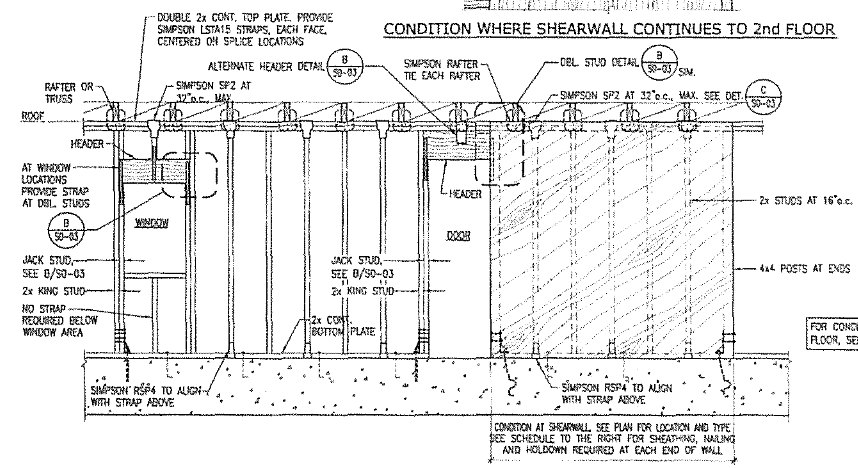

15d AT 8" O.C. (IN PREDRILLED HOLES IF NECESSARY TO PREVENT SPLITTING)
SLOT PLYWOOD TO INSTALL STRAP
15d AT 10" O.C. FROM EACH SIDE
INSTALL DOUBLE JOIST DIRECTLY OVER SHEARWALL (WHETHER OR NOT SHEARWALL OCCURS ABOVE)
JOIST
20 GA. STRAP ALIGN WITH SP2 ABOVE. USE 6-10d INTO STUD BELOW AND 6-10d INTO STUD ABOVE
CONDITION WITH SHEARWALL PARALLEL TO FLOOR JOIST
15d AT 8" O.C. (IN PREDRILLED HOLES IF NECESSARY TO PREVENT SPLITTING)
15d AT 10" O.C. FROM EACH SIDE
JOIST
20 GA. STRAP ALIGN WITH SP2 ABOVE. USE 6-10d INTO STUD BELOW AND 6-10d INTO STUD ABOVE
INSTALL DOUBLE BLOCKING DIRECTLY OVER SHEARWALL (WHETHER OR NOT SHEARWALL OCCURS ABOVE)
CONDITION WITH SHEARWALL PERPENDICULAR TO FLOOR JOIST

DETAIL OF PLATE NAILING REQUIREMENT AT 2nd FLOOR OF TWO STORY INTERIOR SHEARWALL

E S0-03 SCALE: 3/4" = 1'-0"



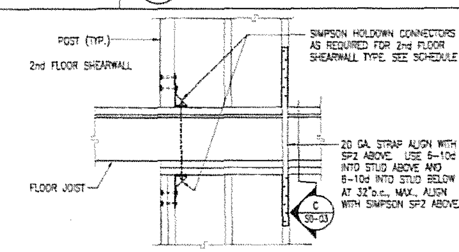
CONDITION WHERE SHEARWALL CONTINUES TO 2nd FLOOR


DOUBLE 2x CONT. TOP PLATE. PROVIDE SIMPSON LSTA15 STRAPS, EACH FACE, CENTERED ON SPLICE LOCATIONS
ALTERNATE HEADER DETAIL B S0-03
SIMPSON RAFTER TIE EACH RAFTER
DBL. STUD DETAIL B S0-03 SIM.
RAFTER OR TRUSS
SIMPSON SP2 AT 32"o.c., MAX
ROOF
SIMPSON SP2 AT 32"o.c., MAX. SEE DET. C S0-03
HEADER
AT WINDOW LOCATIONS PROVIDE STRAP AT DBL. STUDS
B S0-03
WINDOW
HEADER
2x STUDS AT 16"o.c.
DOOR
JACK STUD, SEE B/S0-03
2x KING STUD
JACK STUD, SEE B/S0-03
2x KING STUD
4x4 POSTS AT ENDS
NO STRAP REQUIRED BELOW WINDOW AREA
2x CONT. BOTTOM PLATE
SIMPSON RSP4 TO ALIGN WITH STRAP ABOVE
SIMPSON RSP4 TO ALIGN WITH STRAP ABOVE
CONDITION AT SHEARWALL. SEE PLAN FOR LOCATION AND TYPE. SEE SCHEDULE TO THE RIGHT FOR SHEATHING, NAILING AND HOLDOWN REQUIRED AT EACH END OF WALL

FOR CONDITION AT ELEVATED FLOOR, SEE A/S0-04.

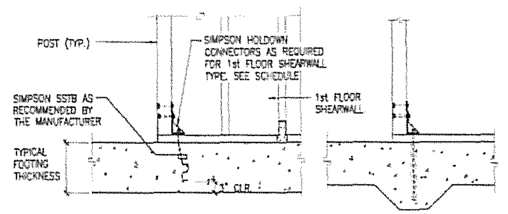
F ELEVATION OF EXTERIOR AND INTERIOR WALLS SUPPORTING TRUSSES OR RAFTERS

S0-03 NOT TO SCALE


POST (TYP.)
2nd FLOOR SHEARWALL
SIMPSON HOLDOWN CONNECTORS AS REQUIRED FOR 2nd FLOOR SHEARWALL TYPE. SEE SCHEDULE
FLOOR JOIST
20 GA. STRAP ALIGN WITH SP2 ABOVE. USE 6-10d INTO STUD ABOVE AND 6-10d INTO STUD BELOW AT 32"o.c., MAX., ALIGN WITH SIMPSON SP2 ABOVE.
C S0-03

CONDITION AT UPPER LEVEL WHERE 2nd FLOOR SHEARWALL ALIGNS WITH 1st FLOOR SHEARWALL

ANCHOR BOLT SCHEDULE FOR HOLDOWN		
TYPE OF HOLDOWN	ANCHOR BOLT	ALTERNATE DRILLED AND EPOXIED ANCHOR BOLTS USING SIMPSON SET SYSTEM
SIMPSON HDU2-SDS2.5	SSTB14	⅝"ø THREADED ROD WITH 10" MIN. EMBEDMENT
SIMPSON HDU4-SDS2.5	SSTB16	⅝"ø THREADED ROD WITH 10" MIN. EMBEDMENT
SIMPSON HDU8-SDS2.5	SB⅞x24	N/A



CONDITION AT GROUND FLOOR

COND. AT ALTERNATE DRILLED AND EPOXIED A.B.

G HOLDOWN DETAIL

S0-03 NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

BEVERLY ISHII-NAKAYAMA · LICENSED PROFESSIONAL ENGINEER · No. 7139-S · HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation. (Expiration Date of the License: 4/30/16)

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224BA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

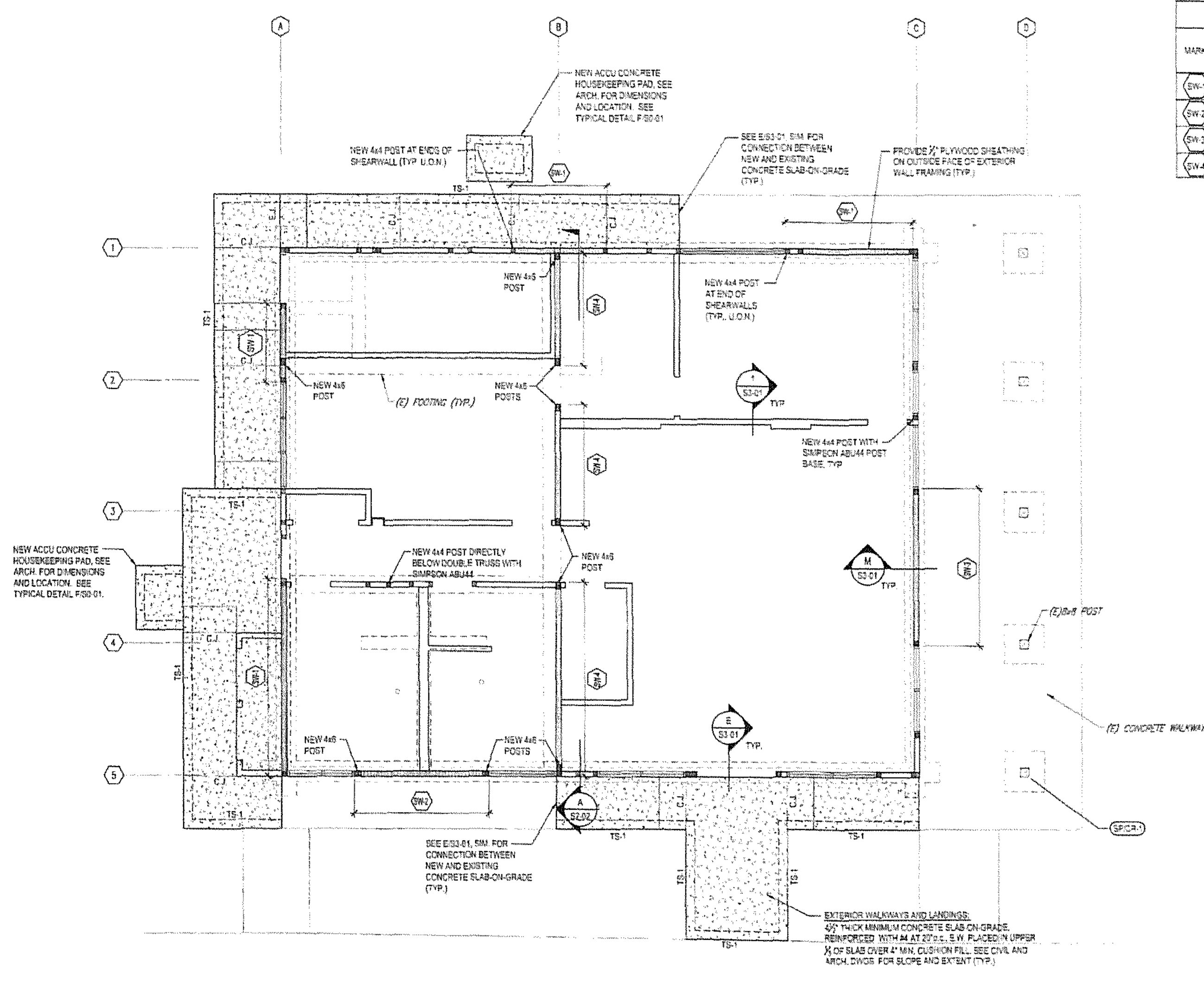
TYPICAL DETAILS

SLSH & ASSOC., INC.
1916 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO. CC-11-5362

DESIGNED BY: SBON · CHECKED BY: HL · DRAWN BY: MM · APPROVED BY: HL · DATE: 9-30-2015

SHEET S0-03



NEW ACCU CONCRETE HOUSEKEEPING PAD, SEE ARCH. FOR DIMENSIONS AND LOCATION. SEE TYPICAL DETAIL F/S0-01
NEW 4x4 POST AT ENDS OF SHEARWALL (TYP. U.O.N.)
SEE E/S3-01, SIM. FOR CONNECTION BETWEEN NEW AND EXISTING CONCRETE SLAB-ON-GRADE (TYP.)
PROVIDE ½" PLYWOOD SHEATHING ON OUTSIDE FACE OF EXTERIOR WALL FRAMING (TYP.)
NEW 4x6 POST
NEW 4x4 POST AT END OF SHEARWALLS (TYP., U.O.N.)
NEW 4x6 POST
(E) FOOTING (TYP.)
NEW 4x6 POSTS
NEW 4x4 POST WITH SIMPSON ABU44 POST BASE, TYP
NEW ACCU CONCRETE HOUSEKEEPING PAD, SEE ARCH. FOR DIMENSIONS AND LOCATION. SEE TYPICAL DETAIL F/S0-01.
NEW 4x4 POST DIRECTLY BELOW DOUBLE TRUSS WITH SIMPSON ABU44
NEW 4x6 POST
(E)8x8 POST
(E) CONCRETE WALKWAY
NEW 4x6 POST
NEW 4x6 POSTS
SEE E/S3-01, SIM. FOR CONNECTION BETWEEN NEW AND EXISTING CONCRETE SLAB-ON-GRADE (TYP.)
SP/CR-1
EXTERIOR WALKWAYS AND LANDINGS:
4½" THICK MINIMUM CONCRETE SLAB-ON-GRADE, REINFORCED WITH #4 AT 20"o.c. E.W. PLACED IN UPPER ½ OF SLAB OVER 4" MIN. CUSHION FILL. SEE CIVIL AND ARCH. DWGS. FOR SLOPE AND EXTENT (TYP.)

REGISTRATION LOBBY - FOUNDATION PLAN

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

GRAPHIC SCALE

NEW SHEARWALL SCHEDULE

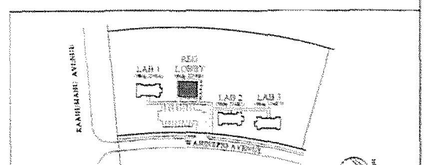
MARK	WALL SHEATHING	FASTENERS (NOTE 2)	2x BOTTOM PLATE CONNECTION TO CONCRETE (NOTE 4)	HOLD DOWN
SW-1	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 6/12	⅝" EPOXIED GALV. THREADED ROD AT 32"o.c.	SIMPSON LTT19
SW-2	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 6/12	⅝" EPOXIED GALV. THREADED ROD AT 32"o.c.	SIMPSON HDU4-SDS2.5
SW-3	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 4/12	⅝" EPOXIED GALV. THREADED ROD AT 16"o.c.	SIMPSON HDU4-SDS2.5
SW-4	⅝" GYPBOARD, BLOCKED, BOTH FACES	6d COOLER NAILS AT 4/12	⅝" EPOXIED GALV. THREADED ROD AT 32"o.c.	SIMPSON HDU2-SDS2.5

NOTES/LEGEND:

1. SW-1 — TYPE
2. 4 / 12 DESIGNATES NAIL SPACING
   - 12 — INDICATES NAILS AT 12"o.c. AT INTERIOR OF PANELS.
   - 4 — INDICATES NAILS AT 4"o.c. ALONG PANEL EDGES.
3. PLYWOOD SHALL BE 15/32" STRUCTURAL I SHEATHING (4-PLY). PLYWOOD SHEATHING FASTENERS SHALL BE AS NOTED IN SCHEDULE. ALL PANEL EDGES MUST BE FULLY BLOCKED. UNLESS OTHERWISE NOTED IN SCHEDULE NON-STRUCTURAL GYPSUM BOARD APPLIED TO OPPOSITE FACE MUST BE FULLY BLOCKED.
4. SEE EPOXIED ANCHOR NOTES ON SHEET S0-00.

CONCRETE REPAIR NOTES:

1. SEE CONCRETE REHABILITATION NOTES ON SHEET S0.00 FOR SPALL/CRACK REPAIR AND SPECIFICATION SECTION 03730 - CONCRETE REPAIR.
2. (SP/CR-1) REPAIR CLOSED SPALL/CRACKED CORNER OF CONCRETE PEDESTAL. QUANTITY = 1 S.F.



KEY PLAN

REVISION NO.	SYM.	DESCRIPTION	DWT. BY	DATE

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

REGISTRATION LOBBY
FOUNDATION PLAN

BEVERLY ISHII-NAKAYAMA · LICENSED PROFESSIONAL ENGINEER · No. 7139-S · HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

SLSH & ASSOC., INC.
1516 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

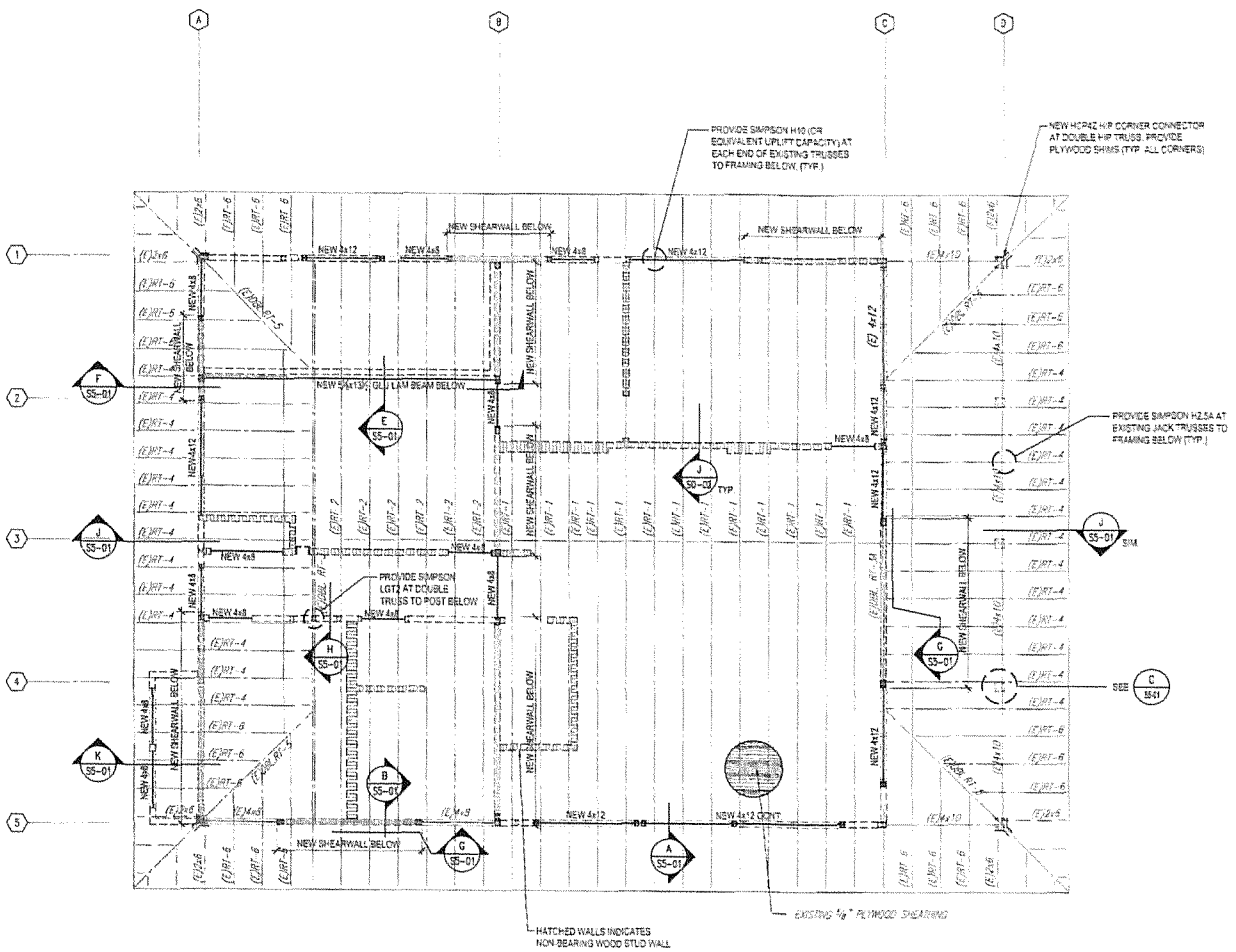
PROJECT NO. CC-11-5362

DESIGNED BY: BKN · CHECKED BY: HL
DRAWN BY: MW · APPROVED BY: HL

DATE: 9-30-2015

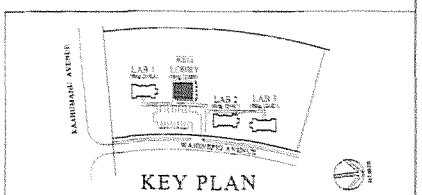
SHEET S1-01

SHT. 51 of 103 SHEETS



REGISTRATION LOBBY - ROOF FRAMING PLAN

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



KEY PLAN

REVISION NO.	SYM.	DESCRIPTION	INIT. OF	DATE

LICENSED PROFESSIONAL ENGINEER No. 7158-E HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

Expiration Date of the License: 4/30/2016

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224BA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

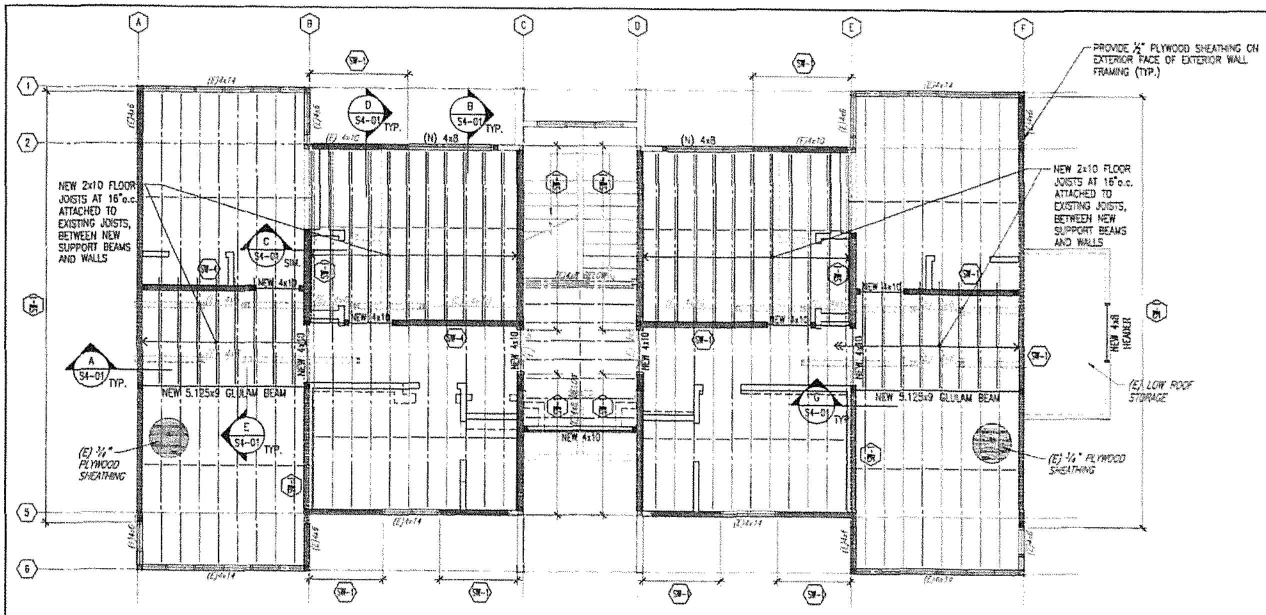
REGISTRATION LOBBY
ROOF FRAMING PLAN

SLSH & ASSOC., INC. 1918 YOUNG STREET, 2nd FLOOR HONOLULU, HAWAII 96826		PROJECT NO. CC-11-5362	SHEET S1-02
DRAWN BY: BKN	CHECKED BY: NL	DATE:	
DRAWN BY: MM	APPROVED BY: NL	9-30-2015	

GRAPHIC SCALE

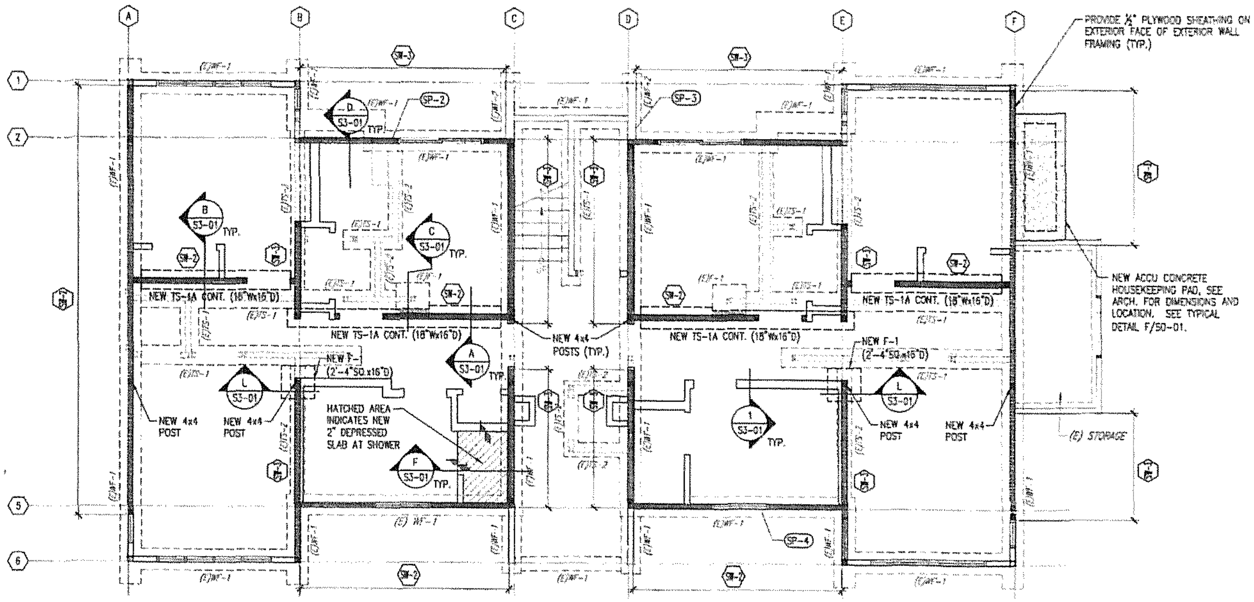
0' 2' 4' 8' 16'

1/4"=1'-0"



LAB 1 - SECOND FLOOR FRAMING PLAN

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



LAB 1 - FOUNDATION PLAN

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

NEW SHEARWALL SCHEDULE

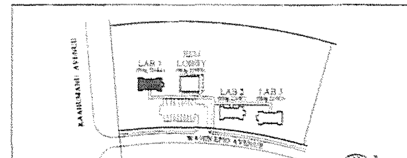
MARK	WALL SHEATHING	FASTENERS (NOTE 2)	2x4 BOTTOM PLATE CONNECTION TO FLOOR BELOW	HOLD DOWN
SW-1	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 6/12	16d COMMON NAILS AT 16" O.C. (IN ADDITION TO EXISTING NAILS FOR 8" EFFECTIVE SPACING)	SIMPSON LSTA36
SW-2	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 6/12	5/8" EPOXIED GALV. THREADED AT 32" O.C. (NOTE 4)	SIMPSON HDU2-SDS2.5
SW-3	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 4/12	5/8" EPOXIED GALV. THREADED AT 32" O.C. (NOTE 4)	SIMPSON HDU4-SDS2.5
SW-4	½" MIN. STRUCTURAL I PLYWOOD, ONE FACE	8d COMMON NAILS AT 6/12	16d COMMON NAILS AT 8" O.C.	SIMPSON LSTA36

NOTES/LEGEND:

1. SW-1 — TYPE
2. 4/12 DESIGNATES NAIL SPACING
   - 12 — INDICATES NAILS AT 12"o.c. AT INTERIOR OF PANELS.
   - 4 — INDICATES NAILS AT 4"o.c. ALONG PANEL EDGES.
3. PLYWOOD SHALL BE 15/32 STRUCTURAL I SHEATHING (4-PLY). PLYWOOD SHEATHING FASTENERS SHALL BE AS NOTED IN SCHEDULE. ALL PANEL EDGES MUST BE FULLY BLOCKED, UNLESS OTHERWISE NOTED IN SCHEDULE. NON-STRUCTURAL GYPSUM BOARD APPLIED TO OPPOSITE FACE MUST BE FULLY BLOCKED.
4. SEE EPOXIED ANCHOR NOTES ON SHEET S0-00.

CONCRETE REPAIR NOTES:

1. SEE CONCRETE REHABILITATION NOTES ON S0-00 FOR SPALL/CRACK REPAIR AND SPECIFICATION SECTION 03700 - CONCRETE REPAIR.
2. (SP-2): REPAIR SPALL AT EDGE OF SLAB. QUANTITY = 2 S.F.
3. (SP-3): REPAIR SPALL AT EDGE OF SLAB. QUANTITY = 2 S.F.
4. (SP-4): REPAIR SPALL AT EDGE OF SLAB. QUANTITY = 6 S.F.



KEY PLAN

GRAPHIC SCALE

1/4"=1'-0" 4' 2' 0 4' 8'

REVISION NO.	SYM.	DESCRIPTION	APP. BY	DATE

BEVERLY ISHII-NAKAYAMA · LICENSED PROFESSIONAL ENGINEER · No. 7159-S · HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

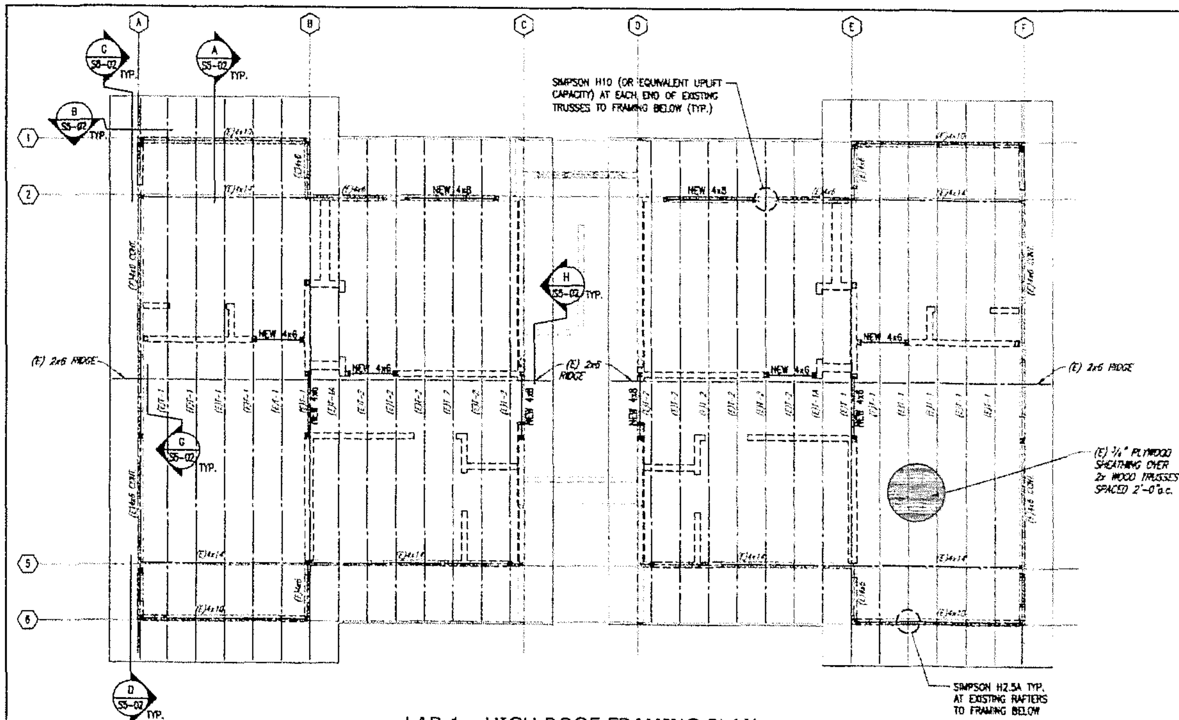
LAB 1
FOUNDATION AND SECOND FLOOR FRAMING PLANS

SLSH & ASSOC., INC.
1916 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO. CC-11-5362

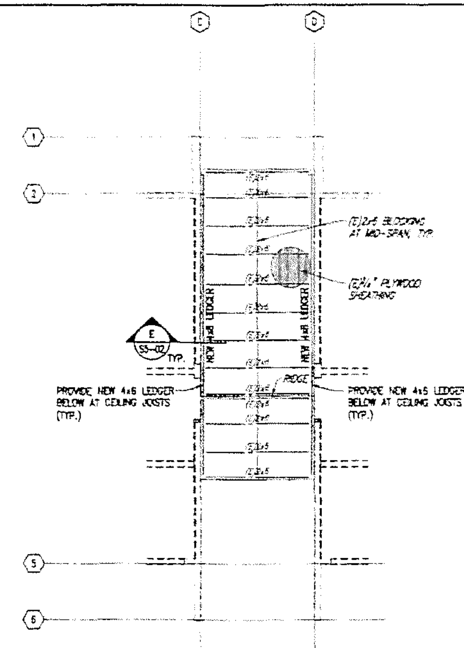
DATE 9-30-2015

SHEET S1-03



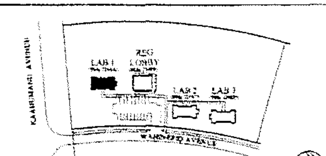
LAB 1 - HIGH ROOF FRAMING PLAN

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



LOW ROOF FRAMING PLAN

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



KEY PLAN

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

UNIVERSITY OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224BA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

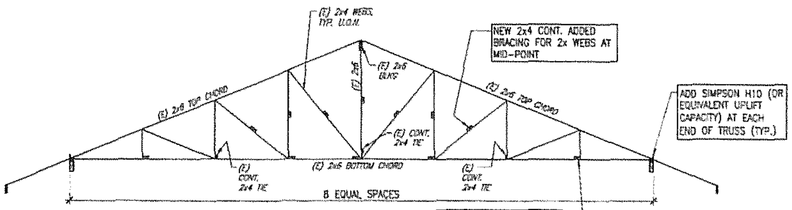
LAB 1
ROOF FRAMING PLANS

SLSH & ASSOC., INC.

PROJECT NO. CC-11-5362

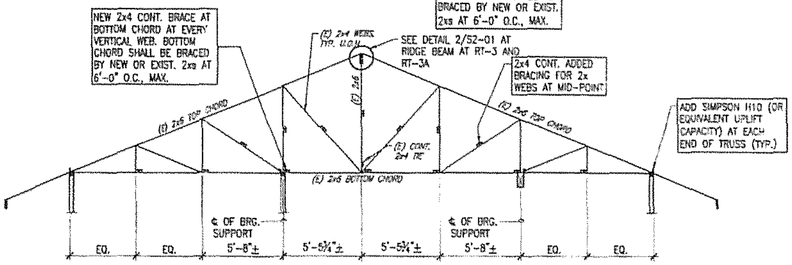
S1-04

GRAPHIC SCALE
1/4"=1'-0" 4' 2' 0 4' 8'

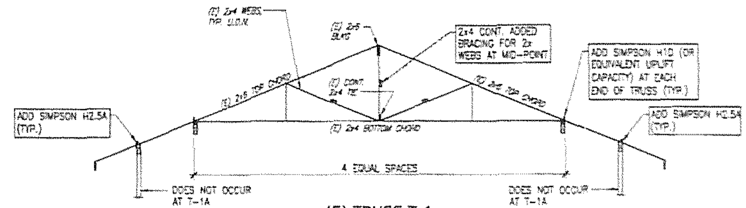

(E) 2x4 WEBS, TYP. U.O.N.
NEW 2x4 CONT. ADDED BRACING FOR 2x WEBS AT MID-POINT
(E) 2x6 BLKG
(E) 2x6
(E) 2x6 TOP CHORD
(E) 2x6 TOP CHORD
ADD SIMPSON H10 (OR EQUIVALENT UPLIFT CAPACITY) AT EACH END OF TRUSS (TYP.)
(E) CONT. 2x4 TIE
(E) CONT. 2x4 TIE
(E) 2x6 BOTTOM CHORD
(E) CONT. 2x4 TIE
8 EQUAL SPACES

NEW 2x4 CONT. BRACE AT BOTTOM CHORD AT EVERY VERTICAL WEB WHERE (E) 2x4 TIE DOES NOT OCCUR. BOTTOM CHORD SHALL BE BRACED BY NEW OR EXIST. 2xs AT 6'-0" O.C., MAX.

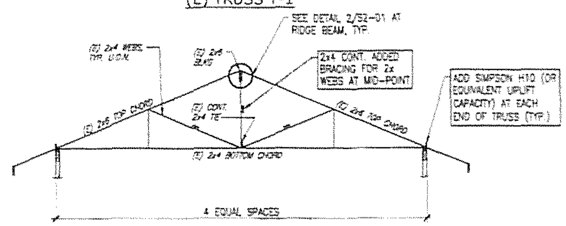
(E) RT-1


NEW 2x4 CONT. BRACE AT BOTTOM CHORD AT EVERY VERTICAL WEB. BOTTOM CHORD SHALL BE BRACED BY NEW OR EXIST. 2xs AT 6'-0" O.C., MAX.
(E) 2x4 WEBS TYP. U.O.N.
SEE DETAIL 2/S2-01 AT RIDGE BEAM AT RT-3 AND RT-3A
2x4 CONT. ADDED BRACING FOR 2x WEBS AT MID-POINT
(E) 2x6 TOP CHORD
(E) 2x6
(E) 2x6 TOP CHORD
ADD SIMPSON H10 (OR EQUIVALENT UPLIFT CAPACITY) AT EACH END OF TRUSS (TYP.)
(E) CONT. 2x4 TIE
(E) 2x6 BOTTOM CHORD
℄ OF BRG. SUPPORT
℄ OF BRG. SUPPORT
EQ.
EQ.
5'-8"±
5'-5¾"±
5'-5¾"±
5'-8"±
EQ.
EQ.

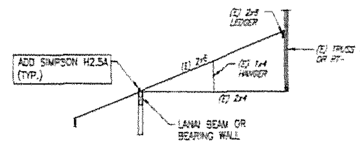
(E) RT-2
(E) RT-3 & RT-3A, SIMILAR


(E) 2x4 WEBS, TYP. U.O.N.
(E) 2x6 BLKG
2x4 CONT. ADDED BRACING FOR 2x WEBS AT MID-POINT
ADD SIMPSON H10 (OR EQUIVALENT UPLIFT CAPACITY) AT EACH END OF TRUSS (TYP.)
(E) 2x6 TOP CHORD
(E) CONT. 2x4 TIE
(E) 2x6 TOP CHORD
ADD SIMPSON H2.5A (TYP.)
ADD SIMPSON H2.5A (TYP.)
(E) 2x4 BOTTOM CHORD
4 EQUAL SPACES
DOES NOT OCCUR AT T-1A
DOES NOT OCCUR AT T-1A

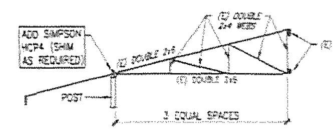
(E) TRUSS T-1


SEE DETAIL 2/S2-01 AT RIDGE BEAM, TYP.
(E) 2x4 WEBS TYP. U.O.N.
(E) 2x6 BLKG
2x4 CONT. ADDED BRACING FOR 2x WEBS AT MID-POINT
ADD SIMPSON H10 (OR EQUIVALENT UPLIFT CAPACITY) AT EACH END OF TRUSS (TYP.)
(E) 2x6 TOP CHORD
(E) CONT. 2x4 TIE
(E) 2x6 TOP CHORD
(E) 2x4 BOTTOM CHORD
4 EQUAL SPACES

(E) TRUSS T-2

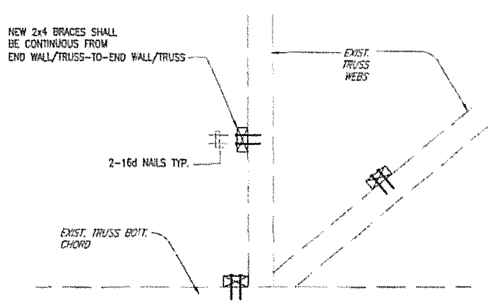


(E) JACK TRUSS RT-4

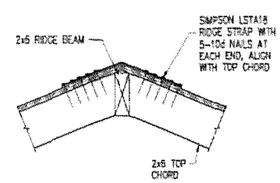


(E) HIP TRUSS RT-5 (DOUBLE)

A
S2-01
EXISTING TRUSS ELEVATIONS
NOT TO SCALE



1
S2-01
NEW 2x BRACING DETAIL
NOT TO SCALE



RAFTER-TO-RIDGE CONDITION

2
S2-01
RIDGE BEAM DETAIL
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER OC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

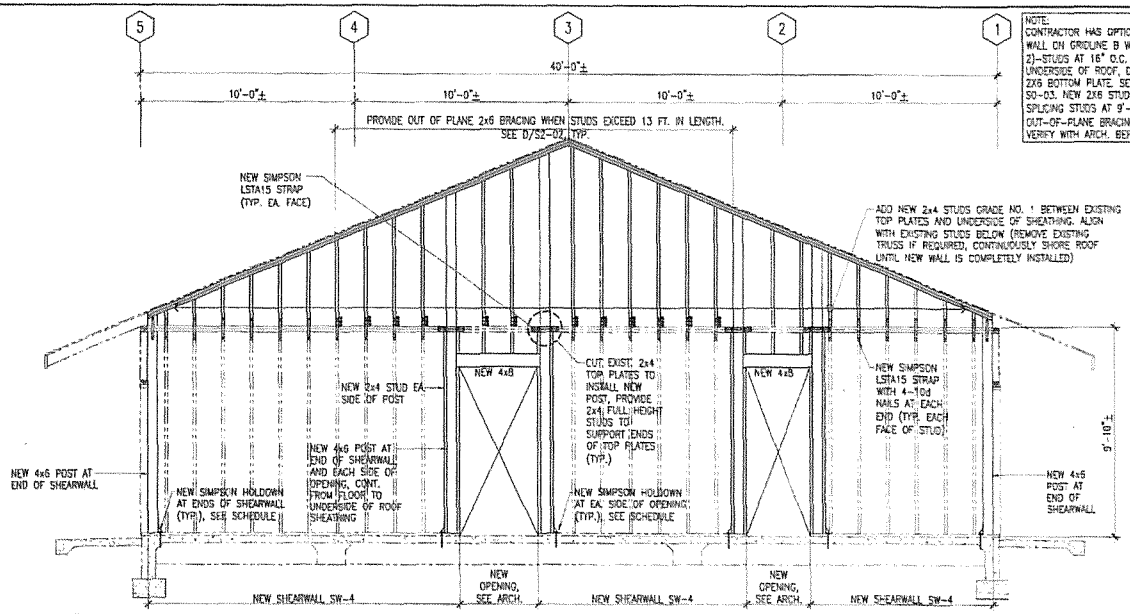
TRUSS ELEVATIONS

LICENSED PROFESSIONAL ENGINEER
HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

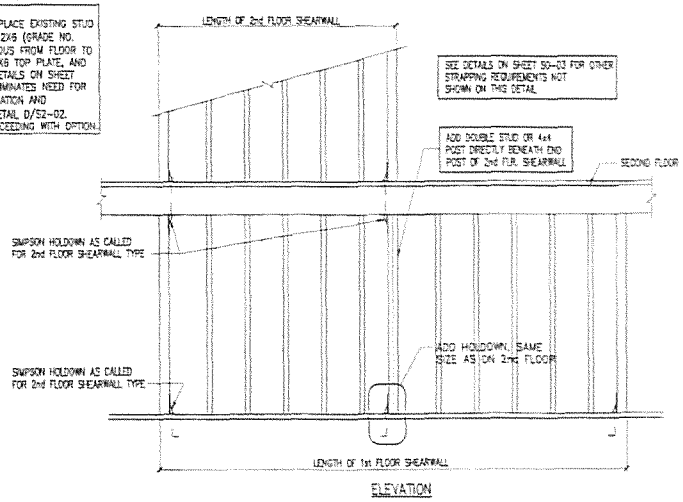
SLSH & ASSOC., INC.

S2-01



A S2-02 WALL ELEVATION ON GRIDLINE B AT REGISTRATION LOBBY

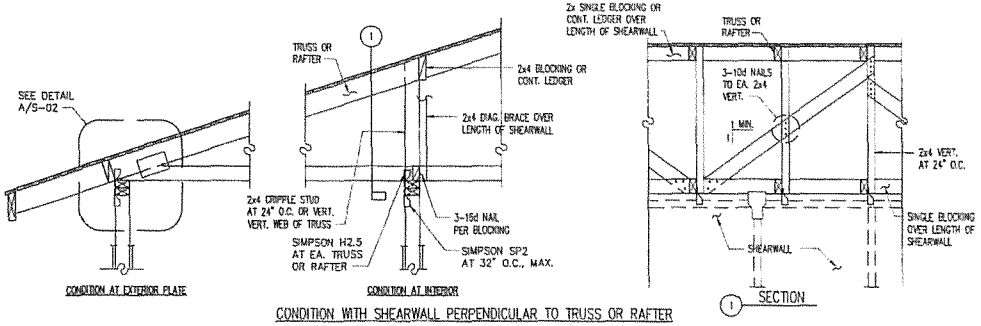
SCALE: 3/8" = 1'-0"



ELEVATION

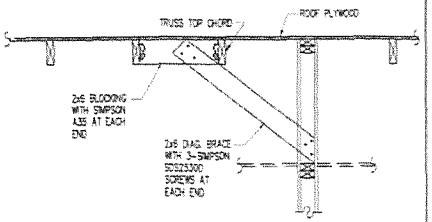
B S2-02 CONDITION WHEN END(s) OF 2ND FLOOR AND 1ST FLOOR SHEARWALL DO NOT ALIGN

NOT TO SCALE



C S2-02 TYPICAL SHEARWALL CONNECTIONS TO ROOF

SCALE: 3/4" = 1'-0"



D S2-02 OUT-OF-PLANE BRACING

SCALE: 3/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	DAT. OF	DATE

LICENSED PROFESSIONAL ENGINEER — BEVERLY ISHII-NAKAYAMA — No. 7139-S — HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation. Expiration Date of this License 4/30/2010

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2240A & 2240B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

WALL ELEVATION AT REGISTRATION LOBBY

SLSH & ASSOC., INC.
1916 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

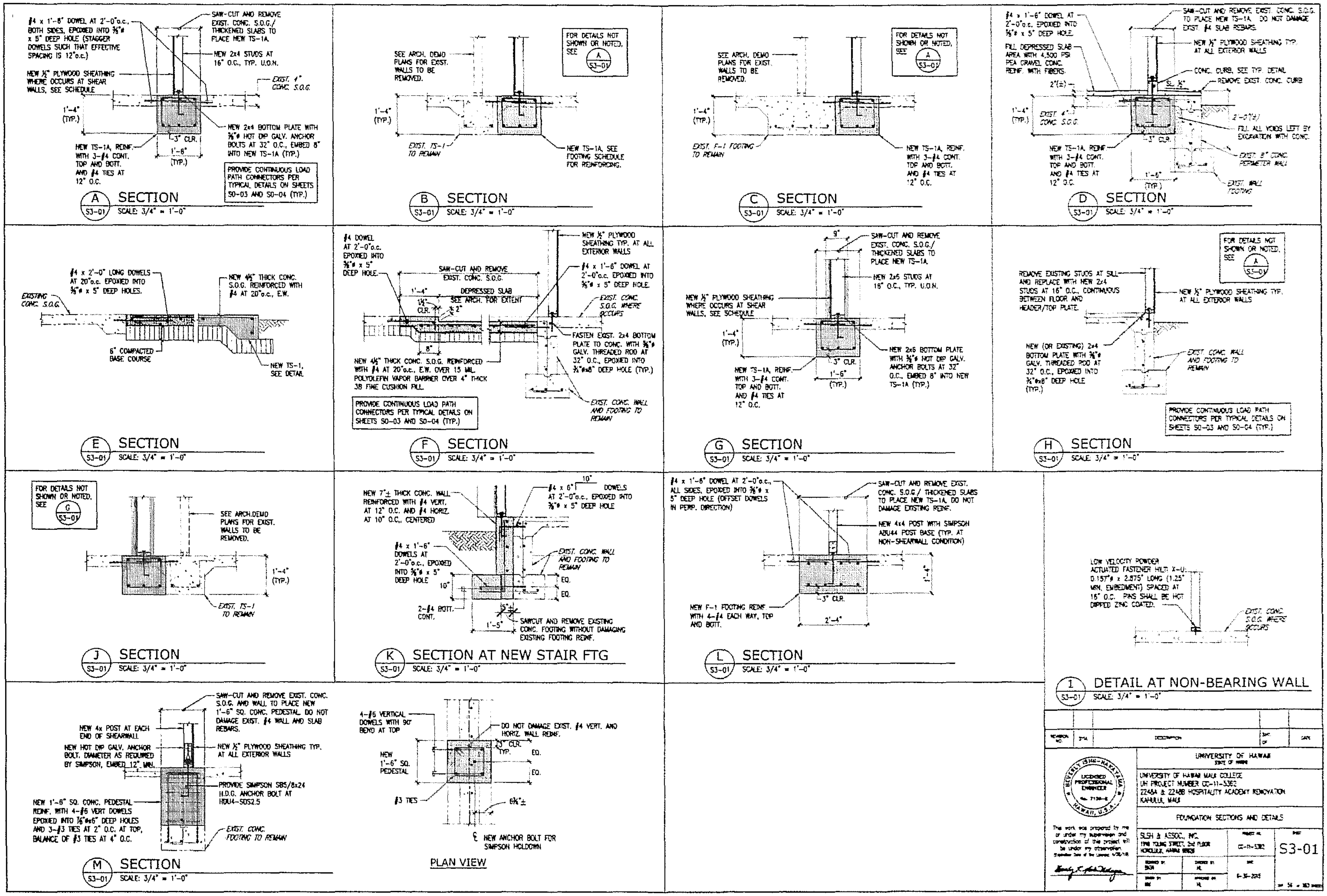
PROJECT NO. CC-11-5362

SHEET S2-02

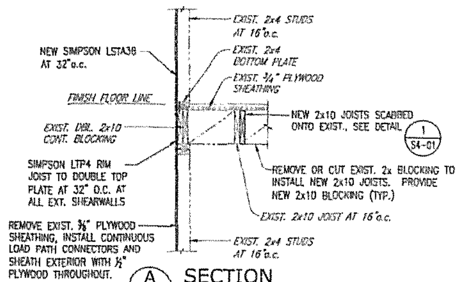
DESIGNED BY BISH | DRAWN BY MM | CHECKED BY HL | APPROVED BY HL

DATE 9-30-2010

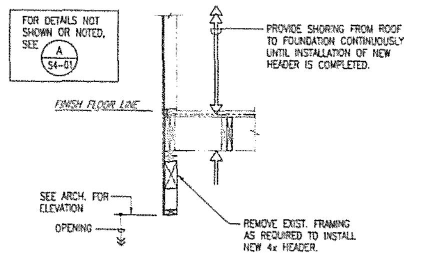
on 55 = 100 metric



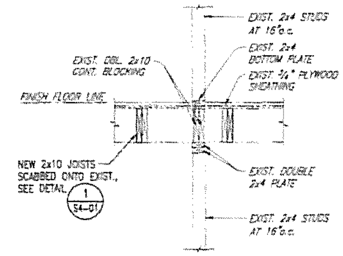
#4 x 1'-6" DOWEL AT 2'-0"o.c., BOTH SIDES, EPOXIED INTO ⅜"ø x 5" DEEP HOLE (STAGGER DOWELS SUCH THAT EFFECTIVE SPACING IS 12"o.c.)
SAW-CUT AND REMOVE EXIST. CONC. S.O.G./ THICKENED SLABS TO PLACE NEW TS-1A.
NEW 2x4 STUDS AT 16" O.C., TYP. U.O.N.
NEW ½" PLYWOOD SHEATHING WHERE OCCURS AT SHEAR WALLS, SEE SCHEDULE
EXIST. 4" CONC. S.O.G.
1'-4" (TYP.)
NEW 2x4 BOTTOM PLATE WITH ⅝"ø HOT DIP GALV. ANCHOR BOLTS AT 32" O.C., EMBED 8" INTO NEW TS-1A (TYP.)
NEW TS-1A, REINF. WITH 3-#4 CONT. TOP AND BOTT. AND #4 TIES AT 12" O.C.
3" CLR.
1'-6" (TYP.)
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)
A SECTION S3-01 SCALE: 3/4" = 1'-0"
FOR DETAILS NOT SHOWN OR NOTED, SEE A S3-01
SEE ARCH. DEMO PLANS FOR EXIST. WALLS TO BE REMOVED.
1'-4" (TYP.)
EXIST. TS-1 TO REMAIN
NEW TS-1A, SEE FOOTING SCHEDULE FOR REINFORCING.
B SECTION S3-01 SCALE: 3/4" = 1'-0"
FOR DETAILS NOT SHOWN OR NOTED, SEE A S3-01
SEE ARCH. DEMO PLANS FOR EXIST. WALLS TO BE REMOVED.
1'-4" (TYP.)
EXIST. F-1 FOOTING TO REMAIN
NEW TS-1A, REINF. WITH 3-#4 CONT. TOP AND BOTT. AND #4 TIES AT 12" O.C.
C SECTION S3-01 SCALE: 3/4" = 1'-0"
#4 x 1'-6" DOWEL AT 2'-0"o.c., EPOXIED INTO ⅜"ø x 5" DEEP HOLE.
SAW-CUT AND REMOVE EXIST. CONC. S.O.G. TO PLACE NEW TS-1A. DO NOT DAMAGE EXIST. #4 SLAB REBARS.
FILL DEPRESSED SLAB AREA WITH 4,500 PSI PEA GRAVEL CONC. REINF. WITH FIBERS.
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
CONC. CURB, SEE TYP. DETAIL
REMOVE EXIST. CONC. CURB
2"(±)
1'-4" (TYP.)
EXIST. 4" CONC. S.O.G.
2'-0"(±)
FILL ALL VOIDS LEFT BY EXCAVATION WITH CONC.
NEW TS-1A, REINF. WITH 3-#4 CONT. TOP AND BOTT. AND #4 TIES AT 12" O.C.
3" CLR.
EXIST. 8" CONC. PERIMETER WALL
1'-6" (TYP.)
EXIST. WALL FOOTING
D SECTION S3-01 SCALE: 3/4" = 1'-0"
#4 x 2'-0" LONG DOWELS AT 20"o.c. EPOXIED INTO ⅜"ø x 5" DEEP HOLES.
NEW 4½" THICK CONC. S.O.G. REINFORCED WITH #4 AT 20"o.c., E.W.
EXISTING CONC. S.O.G.
6" COMPACTED BASE COURSE
NEW TS-1, SEE DETAIL
E SECTION S3-01 SCALE: 3/4" = 1'-0"
#4 DOWEL AT 2'-0"o.c. EPOXIED INTO ⅜"ø x 5" DEEP HOLE.
SAW-CUT AND REMOVE EXIST. CONC. S.O.G.
DEPRESSED SLAB SEE ARCH. FOR EXTENT
1'-4"
1½" CLR.
2"
8"
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
#4 x 1'-6" DOWEL AT 2'-0"o.c. EPOXIED INTO ⅜"ø x 5" DEEP HOLE.
EXIST. CONC. S.O.G. WHERE OCCURS
FASTEN EXIST. 2x4 BOTTOM PLATE TO CONC. WITH ⅜"ø GALV. THREADED ROD AT 32" O.C., EPOXIED INTO ½"ø x 8" DEEP HOLE (TYP.)
NEW 4½" THICK CONC. S.O.G. REINFORCED WITH #4 AT 20"o.c., E.W. OVER 15 MIL POLYOLEFIN VAPOR BARRIER OVER 4" THICK 3B FINE CUSHION FILL.
EXIST. CONC. WALL AND FOOTING TO REMAIN
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)
F SECTION S3-01 SCALE: 3/4" = 1'-0"
9"
SAW-CUT AND REMOVE EXIST. CONC. S.O.G./ THICKENED SLABS TO PLACE NEW TS-1A.
NEW 2x6 STUDS AT 16" O.C., TYP. U.O.N.
NEW ½" PLYWOOD SHEATHING WHERE OCCURS AT SHEAR WALLS, SEE SCHEDULE
1'-4" (TYP.)
NEW 2x6 BOTTOM PLATE WITH ⅝"ø HOT DIP GALV. ANCHOR BOLTS AT 32" O.C., EMBED 8" INTO NEW TS-1A (TYP.)
NEW TS-1A, REINF. WITH 3-#4 CONT. TOP AND BOTT. AND #4 TIES AT 12" O.C.
3" CLR.
1'-6" (TYP.)
G SECTION S3-01 SCALE: 3/4" = 1'-0"
FOR DETAILS NOT SHOWN OR NOTED, SEE A S3-01
REMOVE EXISTING STUDS AT SILL AND REPLACE WITH NEW 2x4 STUDS AT 16" O.C., CONTINUOUS BETWEEN FLOOR AND HEADER/TOP PLATE.
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
NEW (OR EXISTING) 2x4 BOTTOM PLATE WITH ⅜"ø GALV. THREADED ROD AT 32" O.C., EPOXIED INTO ½"ø x 8" DEEP HOLE (TYP.)
EXIST. CONC. WALL AND FOOTING TO REMAIN
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)
H SECTION S3-01 SCALE: 3/4" = 1'-0"
FOR DETAILS NOT SHOWN OR NOTED, SEE G S3-01
SEE ARCH.DEMO PLANS FOR EXIST. WALLS TO BE REMOVED.
1'-4" (TYP.)
EXIST. TS-1 TO REMAIN
J SECTION S3-01 SCALE: 3/4" = 1'-0"
NEW 7"± THICK CONC. WALL REINFORCED WITH #4 VERT. AT 12" O.C. AND #4 HORIZ. AT 10" O.C., CENTERED
10"
#4 x 6" DOWELS AT 2'-0"o.c., EPOXIED INTO ⅜"ø x 5" DEEP HOLE
#4 x 1'-6" DOWELS AT 2'-0"o.c., EPOXIED INTO ⅜"ø x 5" DEEP HOLE
EXIST. CONC. WALL AND FOOTING TO REMAIN
EQ.
EQ.
10"
2-#4 BOTT. CONT.
1'-5"
SAWCUT AND REMOVE EXISTING CONC. FOOTING WITHOUT DAMAGING EXISTING FOOTING REINF.
K SECTION AT NEW STAIR FTG S3-01 SCALE: 3/4" = 1'-0"
#4 x 1'-6" DOWEL AT 2'-0"o.c., ALL SIDES, EPOXIED INTO ⅜"ø x 5" DEEP HOLE (OFFSET DOWELS IN PERP. DIRECTION)
SAW-CUT AND REMOVE EXIST. CONC. S.O.G./ THICKENED SLABS TO PLACE NEW TS-1A. DO NOT DAMAGE EXISTING REINF.
NEW 4x4 POST WITH SIMPSON ABU44 POST BASE (TYP. AT NON-SHEARWALL CONDITION)
1'-4"
3" CLR.
NEW F-1 FOOTING REINF. WITH 4-#4 EACH WAY, TOP AND BOTT.
2'-4"
L SECTION S3-01 SCALE: 3/4" = 1'-0"
LOW VELOCITY POWDER ACTUATED FASTENER HILTI X-U 0.157"ø x 2.875" LONG (1.25" MIN. EMBEDMENT) SPACED AT 16" O.C. PINS SHALL BE HOT DIPPED ZINC COATED.
EXIST. CONC. S.O.G. WHERE OCCURS
1 DETAIL AT NON-BEARING WALL S3-01 SCALE: 3/4" = 1'-0"
SAW-CUT AND REMOVE EXIST. CONC. S.O.G. AND WALL TO PLACE NEW 1'-6" SQ. CONC. PEDESTAL. DO NOT DAMAGE EXIST. #4 WALL AND SLAB REBARS.
NEW 4x POST AT EACH END OF SHEARWALL
NEW HOT DIP GALV. ANCHOR BOLT. DIAMETER AS REQUIRED BY SIMPSON, EMBED 12" MIN.
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
PROVIDE SIMPSON SB5/8x24 H.D.G. ANCHOR BOLT AT HDU4-SDS2.5
NEW 1'-6" SQ. CONC. PEDESTAL REINF. WITH 4-#6 VERT DOWELS EPOXIED INTO ⅞"ø x 6" DEEP HOLES AND 3-#3 TIES AT 2" O.C. AT TOP, BALANCE OF #3 TIES AT 4" O.C.
EXIST. CONC. FOOTING TO REMAIN
M SECTION S3-01 SCALE: 3/4" = 1'-0"
4-#6 VERTICAL DOWELS WITH 90° BEND AT TOP
DO NOT DAMAGE EXIST. #4 VERT. AND HORIZ. WALL REINF.
3" CLR. TYP.
EQ.
EQ.
NEW 1'-6" SQ. PEDESTAL
#3 TIES
6⅛"±
℄ NEW ANCHOR BOLT FOR SIMPSON HOLDOWN
PLAN VIEW
UNIVERSITY OF HAWAII
UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224A & 224B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI
FOUNDATION SECTIONS AND DETAILS
SLSH & ASSOC., INC.
S3-01
LICENSED PROFESSIONAL ENGINEER
HAWAII, U.S.A.
This work was prepared by me or under my supervision and construction of this project will be under my observation.
6-30-2015


EXIST. 2x4 STUDS AT 16"o.c.
NEW SIMPSON LSTA36 AT 32"o.c.
EXIST. 2x4 BOTTOM PLATE
EXIST. 3/4" PLYWOOD SHEATHING
FINISH FLOOR LINE
EXIST. DBL. 2x10 CONT. BLOCKING
NEW 2x10 JOISTS SCABBED ONTO EXIST., SEE DETAIL 1 S4-01
SIMPSON LTP4 RIM JOIST TO DOUBLE TOP PLATE AT 32" O.C. AT ALL EXT. SHEARWALLS
REMOVE OR CUT EXIST. 2x BLOCKING TO INSTALL NEW 2x10 JOISTS. PROVIDE NEW 2x10 BLOCKING (TYP.)
EXIST. 2x10 JOIST AT 16"o.c.
REMOVE EXIST. 3/8" PLYWOOD SHEATHING, INSTALL CONTINUOUS LOAD PATH CONNECTORS AND SHEATH EXTERIOR WITH 1/2" PLYWOOD THROUGHOUT.
EXIST. 2x4 STUDS AT 16"o.c.

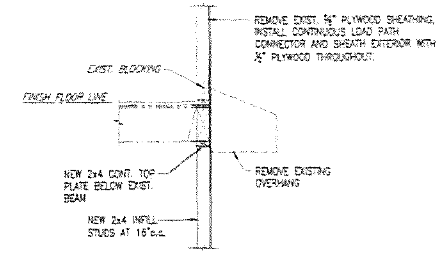
A SECTION S4-01 SCALE: 3/4" = 1'-0"


FOR DETAILS NOT SHOWN OR NOTED, SEE A S4-01
PROVIDE SHORING FROM ROOF TO FOUNDATION CONTINUOUSLY UNTIL INSTALLATION OF NEW HEADER IS COMPLETED.
FINISH FLOOR LINE
SEE ARCH. FOR ELEVATION
OPENING
REMOVE EXIST. FRAMING AS REQUIRED TO INSTALL NEW 4x HEADER.

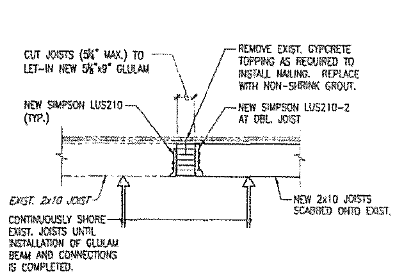
B SECTION S4-01 SCALE: 3/4" = 1'-0"



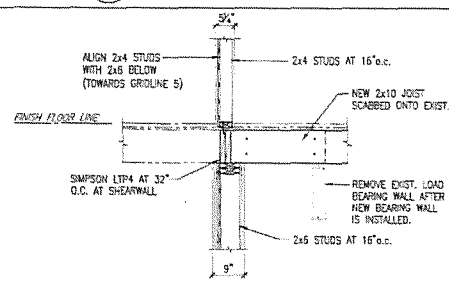
C SECTION S4-01 SCALE: 3/4" = 1'-0"


REMOVE EXIST. 3/8" PLYWOOD SHEATHING, INSTALL CONTINUOUS LOAD PATH CONNECTOR AND SHEATH EXTERIOR WITH 1/2" PLYWOOD THROUGHOUT.
EXIST. BLOCKING
FINISH FLOOR LINE
NEW 2x4 CONT. TOP PLATE BELOW EXIST. BEAM
REMOVE EXISTING OVERHANG
NEW 2x4 INFILL STUDS AT 16"o.c.

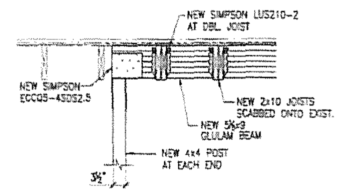
D SECTION S4-01 SCALE: 3/4" = 1'-0"


CUT JOISTS (5¼" MAX.) TO LET-IN NEW 5⅛"x9" GLULAM
REMOVE EXIST. GYPCRETE TOPPING AS REQUIRED TO INSTALL NAILING. REPLACE WITH NON-SHRINK GROUT.
NEW SIMPSON LUS210 (TYP.)
NEW SIMPSON LUS210-2 AT DBL. JOIST
EXIST. 2x10 JOIST
NEW 2x10 JOISTS SCABBED ONTO EXIST.
CONTINUOUSLY SHORE EXIST. JOISTS UNTIL INSTALLATION OF GLULAM BEAM AND CONNECTIONS IS COMPLETED.

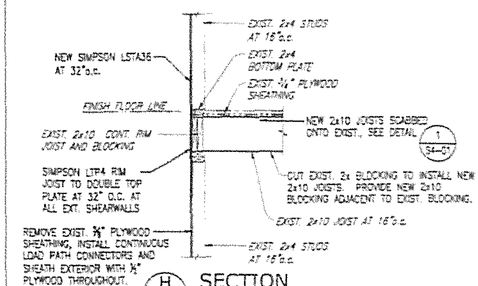
E SECTION S4-01 SCALE: 3/4" = 1'-0"



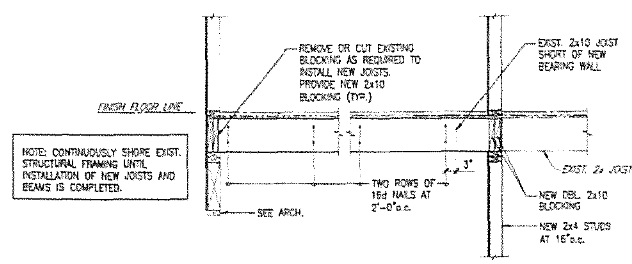
F SECTION S4-01 SCALE: 3/4" = 1'-0"



G SECTION S4-01 SCALE: 3/4" = 1'-0"


EXIST. 2x4 STUDS AT 16"o.c.
NEW SIMPSON LSTA36 AT 32"o.c.
EXIST. 2x4 BOTTOM PLATE
EXIST. 3/4" PLYWOOD SHEATHING
FINISH FLOOR LINE
NEW 2x10 JOISTS SCABBED ONTO EXIST., SEE DETAIL 1 S4-01
EXIST. 2x10 CONT. RIM JOIST AND BLOCKING
SIMPSON LTP4 RIM JOIST TO DOUBLE TOP PLATE AT 32" O.C. AT ALL EXT. SHEARWALLS
CUT EXIST. 2x BLOCKING TO INSTALL NEW 2x10 JOISTS. PROVIDE NEW 2x10 BLOCKING ADJACENT TO EXIST. BLOCKING.
EXIST. 2x10 JOIST AT 16"o.c.
REMOVE EXIST. 3/8" PLYWOOD SHEATHING, INSTALL CONTINUOUS LOAD PATH CONNECTORS AND SHEATH EXTERIOR WITH 1/2" PLYWOOD THROUGHOUT.
EXIST. 2x4 STUDS AT 16"o.c.

H SECTION S4-01 SCALE: 3/4" = 1'-0"


REMOVE OR CUT EXISTING BLOCKING AS REQUIRED TO INSTALL NEW JOISTS. PROVIDE NEW 2x10 BLOCKING (TYP.)
EXIST. 2x10 JOIST SHORT OF NEW BEARING WALL
FINISH FLOOR LINE
NOTE: CONTINUOUSLY SHORE EXIST. STRUCTURAL FRAMING UNTIL INSTALLATION OF NEW JOISTS AND BEAMS IS COMPLETED.
3"
EXIST. 2x JOIST
TWO ROWS OF 16d NAILS AT 2'-0"o.c.
NEW DBL. 2x10 BLOCKING
SEE ARCH.
NEW 2x4 STUDS AT 16"o.c.

1 NEW 2x10 JOIST DETAIL S4-01 SCALE: 3/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

BEVERLY ISHII-NAKAYAMA LICENSED PROFESSIONAL ENGINEER No. 7159-S HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224BA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

SECOND FLOOR SECTIONS

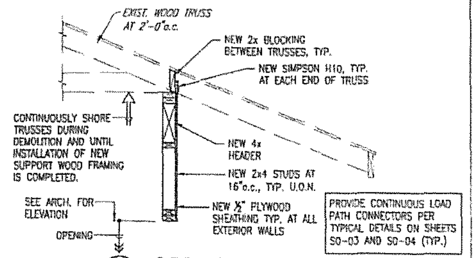
SLSH & ASSOC., INC.
1814 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO. CC-11-5362

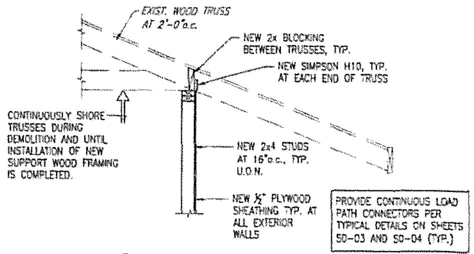
SHEET S4-01

DESIGNED BY: BKIN | CHECKED BY: HL | DATE: 9-30-2015
DRAWN BY: MM | APPROVED BY: HL

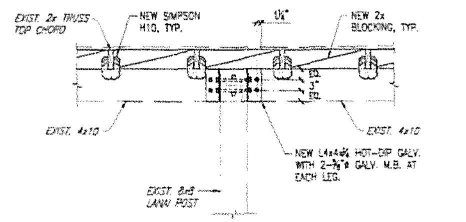
SH. 57 of 102 SHEETS


EXIST. WOOD TRUSS AT 2'-0"o.c.
NEW 2x BLOCKING BETWEEN TRUSSES, TYP.
NEW SIMPSON H10, TYP. AT EACH END OF TRUSS
CONTINUOUSLY SHORE TRUSSES DURING DEMOLITION AND UNTIL INSTALLATION OF NEW SUPPORT WOOD FRAMING IS COMPLETED.
NEW 4x HEADER
NEW 2x4 STUDS AT 16"o.c., TYP. U.O.N.
SEE ARCH. FOR ELEVATION
OPENING
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)

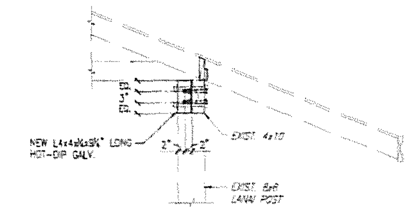
A SECTION
S5-01 SCALE: 3/4" = 1'-0"


EXIST. WOOD TRUSS AT 2'-0"o.c.
NEW 2x BLOCKING BETWEEN TRUSSES, TYP.
NEW SIMPSON H10, TYP. AT EACH END OF TRUSS
CONTINUOUSLY SHORE TRUSSES DURING DEMOLITION AND UNTIL INSTALLATION OF NEW SUPPORT WOOD FRAMING IS COMPLETED.
NEW 2x4 STUDS AT 16"o.c., TYP. U.O.N.
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)

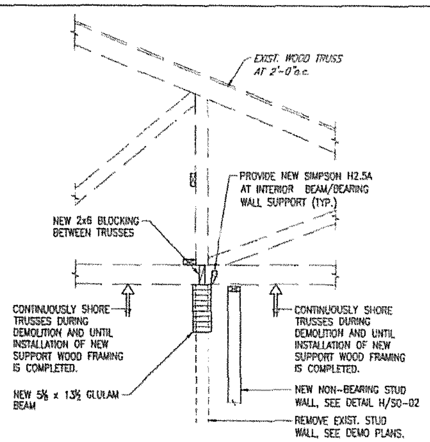
B SECTION
S5-01 SCALE: 3/4" = 1'-0"



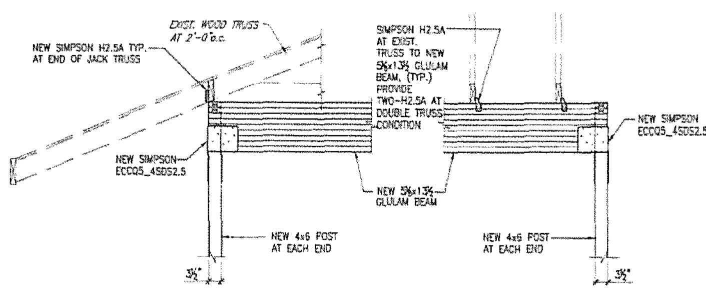
C SECTION
S5-01 SCALE: 3/4" = 1'-0"



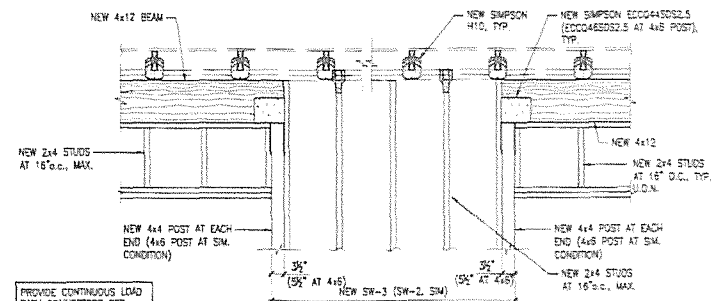
D SECTION
S5-01 SCALE: 3/4" = 1'-0"


EXIST. WOOD TRUSS AT 2'-0"o.c.
PROVIDE NEW SIMPSON H2.5A AT INTERIOR BEAM/BEARING WALL SUPPORT (TYP.)
NEW 2x6 BLOCKING BETWEEN TRUSSES
CONTINUOUSLY SHORE TRUSSES DURING DEMOLITION AND UNTIL INSTALLATION OF NEW SUPPORT WOOD FRAMING IS COMPLETED.
NEW 5⅛ x 13½ GLULAM BEAM
NEW NON-BEARING STUD WALL, SEE DETAIL H/S0-02
REMOVE EXIST. STUD WALL, SEE DEMO PLANS.

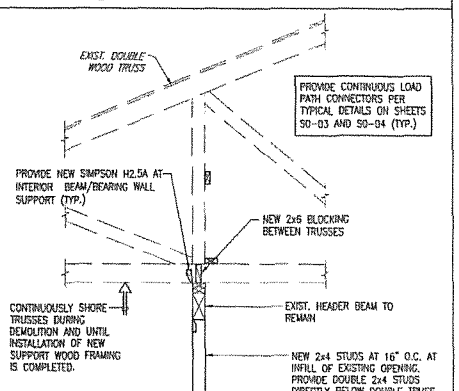
E SECTION
S5-01 SCALE: 3/4" = 1'-0"


EXIST. WOOD TRUSS AT 2'-0"o.c.
NEW SIMPSON H2.5A TYP. AT END OF JACK TRUSS
SIMPSON H2.5A AT EXIST. TRUSS TO NEW 5⅛x13½ GLULAM BEAM. (TYP.) PROVIDE TWO-H2.5A AT DOUBLE TRUSS CONDITION
NEW SIMPSON ECCQ5_45DS2.5
NEW SIMPSON ECCQ5_45DS2.5
NEW 5⅛x13½ GLULAM BEAM
NEW 4x6 POST AT EACH END
NEW 4x6 POST AT EACH END
3½"
3½"

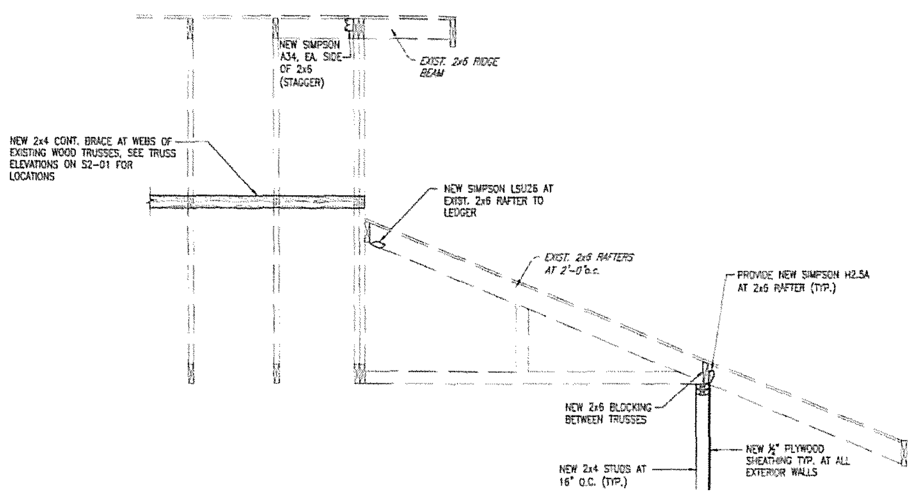
F SECTION
S5-01 SCALE: 3/4" = 1'-0"


NEW 4x12 BEAM
NEW SIMPSON H10, TYP.
NEW SIMPSON ECCQ44SDS2.5 (ECCQ46SDS2.5 AT 4x6 POST), TYP.
NEW 4x12
NEW 2x4 STUDS AT 16"o.c., MAX.
NEW 2x4 STUDS AT 16" O.C., TYP. U.O.N.
NEW 4x4 POST AT EACH END (4x6 POST AT SIM. CONDITION)
NEW 4x4 POST AT EACH END (4x6 POST AT SIM. CONDITION)
3½" (5½" AT 4x6)
3½" (5½" AT 4x6)
NEW SW-3 (SW-2, SIM)
NEW 2x4 STUDS AT 16"o.c., MAX.
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)

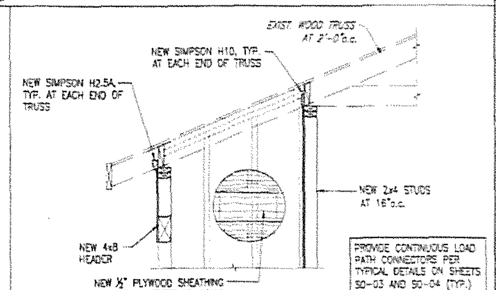
G SECTION
S5-01 SCALE: 3/4" = 1'-0"


EXIST. DOUBLE WOOD TRUSS
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)
PROVIDE NEW SIMPSON H2.5A AT INTERIOR BEAM/BEARING WALL SUPPORT (TYP.)
NEW 2x6 BLOCKING BETWEEN TRUSSES
CONTINUOUSLY SHORE TRUSSES DURING DEMOLITION AND UNTIL INSTALLATION OF NEW SUPPORT WOOD FRAMING IS COMPLETED.
EXIST. HEADER BEAM TO REMAIN
NEW 2x4 STUDS AT 16" O.C. AT INFILL OF EXISTING OPENING. PROVIDE DOUBLE 2x4 STUDS DIRECTLY BELOW DOUBLE TRUSS

H SECTION
S5-01 SCALE: 3/4" = 1'-0"


NEW SIMPSON A34, EA. SIDE OF 2x6 (STAGGER)
EXIST. 2x6 RIDGE BEAM
NEW 2x4 CONT. BRACE AT WEBS OF EXISTING WOOD TRUSSES, SEE TRUSS ELEVATIONS ON S2-01 FOR LOCATIONS
NEW SIMPSON LSU26 AT EXIST. 2x6 RAFTER TO LEDGER
EXIST. 2x6 RAFTERS AT 2'-0"o.c.
PROVIDE NEW SIMPSON H2.5A AT 2x6 RAFTER (TYP.)
NEW 2x6 BLOCKING BETWEEN TRUSSES
NEW 2x4 STUDS AT 16" O.C. (TYP.)
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS

J SECTION
S5-01 SCALE: 3/4" = 1'-0"


EXIST. WOOD TRUSS AT 2'-0"o.c.
NEW SIMPSON H10, TYP. AT EACH END OF TRUSS
NEW SIMPSON H2.5A TYP. AT EACH END OF TRUSS
NEW 2x4 STUDS AT 16"o.c.
NEW 4x8 HEADER
NEW ½" PLYWOOD SHEATHING TYP. AT ALL EXTERIOR WALLS
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)

K SECTION
S5-01 SCALE: 3/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT OF	DATE

BEVERLY ISHII-NAKAYAMA — LICENSED PROFESSIONAL ENGINEER — No. 7139-S — HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.

UNIVERSITY OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
224SA & 224BB HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

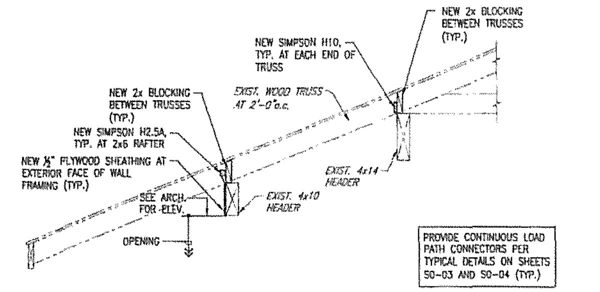
ROOF SECTIONS AND DETAILS

SLSH & ASSOC., INC.
1216 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96814

CC-11-5362

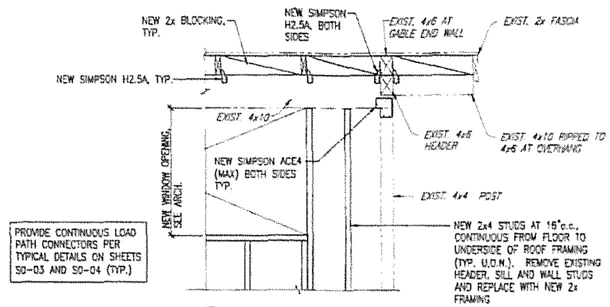
S5-01

9-30-2015



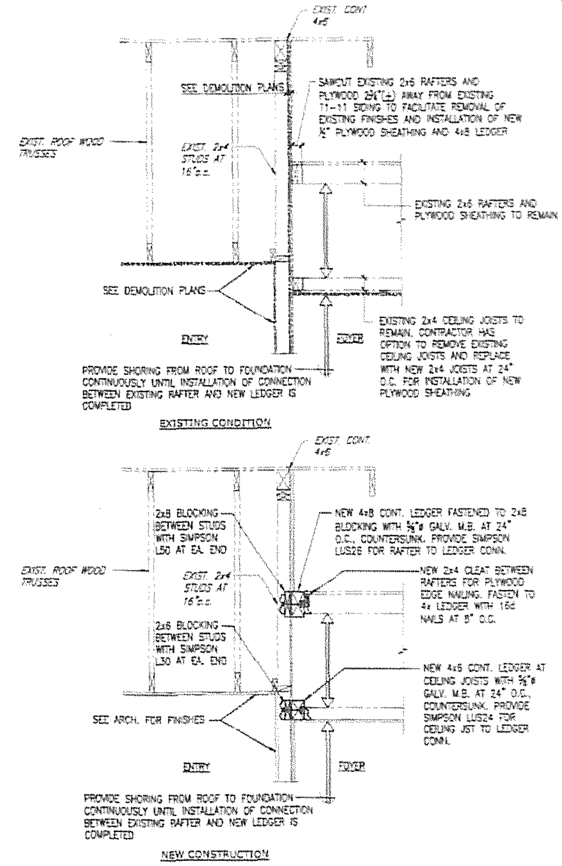
NEW 2x BLOCKING BETWEEN TRUSSES (TYP.)
NEW SIMPSON H10, TYP. AT EACH END OF TRUSS
EXIST. WOOD TRUSS AT 2'-0"o.c.
NEW 2x BLOCKING BETWEEN TRUSSES (TYP.)
NEW SIMPSON H2.5A, TYP. AT 2x6 RAFTER
NEW ½" PLYWOOD SHEATHING AT EXTERIOR FACE OF WALL FRAMING (TYP.)
SEE ARCH. FOR ELEV.
OPENING
EXIST. 4x10 HEADER
EXIST. 4x14 HEADER
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)

A SECTION
S5-02 SCALE: 3/4" = 1'-0"



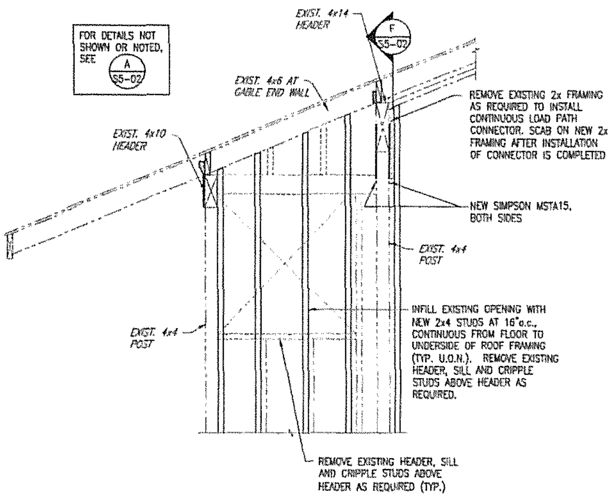
NEW 2x BLOCKING, TYP.
NEW SIMPSON H2.5A, BOTH SIDES
EXIST. 4x6 AT GABLE END WALL
EXIST. 2x FASCIA
NEW SIMPSON H2.5A, TYP.
EXIST. 4x10
NEW WINDOW OPENING, SEE ARCH.
NEW SIMPSON ACE4 (MAX) BOTH SIDES TYP.
EXIST. 4x6 HEADER
EXIST. 4x10 RIPPED TO 4x6 AT OVERHANG
EXIST. 4x4 POST
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)
NEW 2x4 STUDS AT 16"o.c., CONTINUOUS FROM FLOOR TO UNDERSIDE OF ROOF FRAMING (TYP. U.O.N.). REMOVE EXISTING HEADER, SILL AND WALL STUDS AND REPLACE WITH NEW 2x FRAMING

B SECTION
S5-02 SCALE: 3/4" = 1'-0"



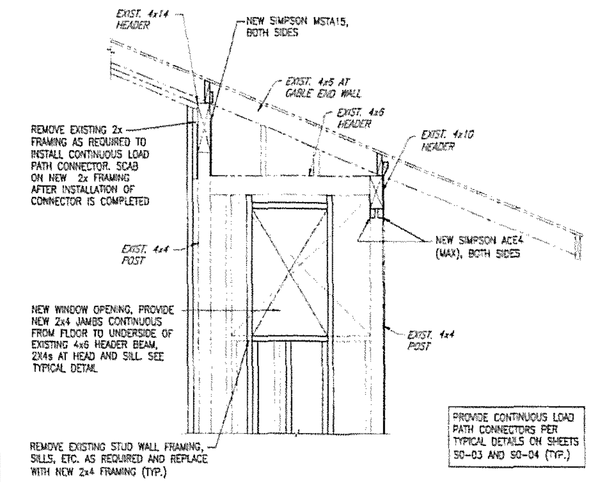
EXIST. CONT 4x6
SEE DEMOLITION PLANS
SAWCUT EXISTING 2x6 RAFTERS AND PLYWOOD 2½"(±) AWAY FROM EXISTING T1-11 SIDING TO FACILITATE REMOVAL OF EXISTING FINISHES AND INSTALLATION OF NEW ½" PLYWOOD SHEATHING AND 4x8 LEDGER
EXIST. ROOF WOOD TRUSSES
EXIST. 2x4 STUDS AT 16"o.c.
EXISTING 2x6 RAFTERS AND PLYWOOD SHEATHING TO REMAIN
SEE DEMOLITION PLANS
ENTRY
FOYER
EXISTING 2x4 CEILING JOISTS TO REMAIN. CONTRACTOR HAS OPTION TO REMOVE EXISTING CEILING JOISTS AND REPLACE WITH NEW 2x4 JOISTS AT 24" O.C. FOR INSTALLATION OF NEW PLYWOOD SHEATHING
PROVIDE SHORING FROM ROOF TO FOUNDATION CONTINUOUSLY UNTIL INSTALLATION OF CONNECTION BETWEEN EXISTING RAFTER AND NEW LEDGER IS COMPLETED
EXISTING CONDITION
EXIST. CONT 4x6
2x8 BLOCKING BETWEEN STUDS WITH SIMPSON L50 AT EA. END
NEW 4x8 CONT. LEDGER FASTENED TO 2x8 BLOCKING WITH ⅝"ø GALV. M.B. AT 24" O.C., COUNTERSUNK. PROVIDE SIMPSON LUS26 FOR RAFTER TO LEDGER CONN.
EXIST. ROOF WOOD TRUSSES
EXIST. 2x4 STUDS AT 16"o.c.
NEW 2x4 CLEAT BETWEEN RAFTERS FOR PLYWOOD EDGE NAILING. FASTEN TO 4x LEDGER WITH 16d NAILS AT 8" O.C.
2x6 BLOCKING BETWEEN STUDS WITH SIMPSON L30 AT EA. END
NEW 4x6 CONT. LEDGER AT CEILING JOISTS WITH ⅝"ø GALV. M.B. AT 24" O.C., COUNTERSUNK. PROVIDE SIMPSON LUS24 FOR CEILING JST TO LEDGER CONN.
SEE ARCH. FOR FINISHES
ENTRY
FOYER
PROVIDE SHORING FROM ROOF TO FOUNDATION CONTINUOUSLY UNTIL INSTALLATION OF CONNECTION BETWEEN EXISTING RAFTER AND NEW LEDGER IS COMPLETED
NEW CONSTRUCTION

E SECTION
S5-02 SCALE: 3/4" = 1'-0"



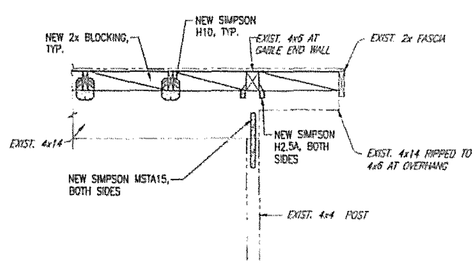
FOR DETAILS NOT SHOWN OR NOTED, SEE A S5-02
EXIST. 4x14 HEADER
F S5-02
EXIST. 4x6 AT GABLE END WALL
EXIST. 4x10 HEADER
REMOVE EXISTING 2x FRAMING AS REQUIRED TO INSTALL CONTINUOUS LOAD PATH CONNECTOR. SCAB ON NEW 2x FRAMING AFTER INSTALLATION OF CONNECTOR IS COMPLETED
NEW SIMPSON MSTA15, BOTH SIDES
EXIST. 4x4 POST
EXIST. 4x4 POST
INFILL EXISTING OPENING WITH NEW 2x4 STUDS AT 16"o.c., CONTINUOUS FROM FLOOR TO UNDERSIDE OF ROOF FRAMING (TYP. U.O.N.). REMOVE EXISTING HEADER, SILL AND CRIPPLE STUDS ABOVE HEADER AS REQUIRED.
REMOVE EXISTING HEADER, SILL AND CRIPPLE STUDS ABOVE HEADER AS REQUIRED (TYP.)

C SECTION
S5-02 SCALE: 3/4" = 1'-0"

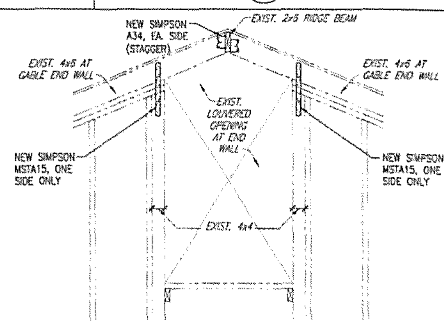


EXIST. 4x14 HEADER
NEW SIMPSON MSTA15, BOTH SIDES
EXIST. 4x6 AT GABLE END WALL
EXIST. 4x6 HEADER
EXIST. 4x10 HEADER
REMOVE EXISTING 2x FRAMING AS REQUIRED TO INSTALL CONTINUOUS LOAD PATH CONNECTOR. SCAB ON NEW 2x FRAMING AFTER INSTALLATION OF CONNECTOR IS COMPLETED
EXIST. 4x4 POST
NEW SIMPSON ACE4 (MAX), BOTH SIDES
NEW WINDOW OPENING. PROVIDE NEW 2x4 JAMBS CONTINUOUS FROM FLOOR TO UNDERSIDE OF EXISTING 4x6 HEADER BEAM, 2X4s AT HEAD AND SILL. SEE TYPICAL DETAIL
EXIST. 4x4 POST
REMOVE EXISTING STUD WALL FRAMING, SILLS, ETC. AS REQUIRED AND REPLACE WITH NEW 2x4 FRAMING (TYP.)
PROVIDE CONTINUOUS LOAD PATH CONNECTORS PER TYPICAL DETAILS ON SHEETS S0-03 AND S0-04 (TYP.)

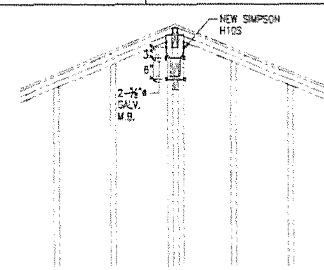
D SECTION
S5-02 SCALE: 3/4" = 1'-0"



F SECTION
S5-02 SCALE: 3/4" = 1'-0"



G SECTION
S5-02 SCALE: 3/4" = 1'-0"



H SECTION
S5-02 SCALE: 3/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

BEVERLY ISHII-NAKAYAMA
LICENSED PROFESSIONAL ENGINEER
No. 7150-S
HAWAII, U.S.A.

This work was prepared by me or under my supervision and construction of this project will be under my observation.
Expiration Date of the License: 4/30/16

UNIVERSITY OF HAWAII
STATE OF HAWAII

UNIVERSITY OF HAWAII MAUI COLLEGE
UH PROJECT NUMBER CC-11-5362
2248A & 2248B HOSPITALITY ACADEMY RENOVATION
KAHULUI, MAUI

ROOF SECTIONS AND DETAILS

SLSH & ASSOC., INC.
1916 YOUNG STREET, 2nd FLOOR
HONOLULU, HAWAII 96826

PROJECT NO.: CC-11-5362
SHEET: S5-02
DATE: 9-30-2015
SHEET 53 of 103 SHEETS