

DECK REQUIREMENTS:
ASPHALT SHINGLES SHALL BE FASTENED TO SOLIDLY SHEATHED DECKS.

SLOPE:
ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF 2:12
OR GREATER. FOR ROOF SLOPES FROM 2:12 TO 4:12, DOUBLE UNDERLAYMENT
IS REQUIRED.

UNDERLAYMENT:
UNLESS OTHERWISE NOTED, UNDERLAYMENT SHALL CONFORM WITH ASTM D 228,
TYPE 1, OR ASTM D 4899, TYPE 1.

SELF-ADHERING POLYMER MODIFIED BITUMEN SHEET
SELF-ADHERING POLYMER MODIFIED BITUMEN SHALL COMPLY WITH ASTM D 1970.

ASPHALT SHINGLES:
ASPHALT SHINGLES SHALL HAVE SELF SEAL STRIPS OR BE INTERLOCKING, AND
COMPLY WITH ASTM D 225 OR ASTM D 3462.

FASTENERS:
FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED, STAINLESS STEEL,
ALUMINUM OR COPPER ROOFING NAILS, MINIMUM 12 GAUGE SHANK WITH A MINIMUM
3/8 INCH DIAMETER HEAD, OF A LENGTH TO PENETRATE THROUGH THE ROOFING
MATERIAL AND A MINIMUM 5/4" INTO THE ROOF SHEATHING. WHERE ROOF SHEATHING
IS LESS THAN 3/4" THICK, THE NAILS SHALL PENETRATE THROUGH THE SHEATHING.

ATTACHMENT:
ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN FOUR
FASTENERS PER STRIP SHINGLE OR TWO FASTENERS PER INDIVIDUAL SHINGLE.
WHERE ROOFS LOCATED IN BASIC WIND SPEED OF 110 MPH OR GREATER, SPECIAL
METHODS OF FASTENING ARE REQUIRED. UNLESS OTHERWISE NOTED, ATTACHMENT
OF ASPHALT SHINGLES SHALL CONFORM WITH ASTM D 3181 OR IRC R 9.0.

UNDERLAYMENT APPLICATION:
FOR ROOF SLOPES FROM 2:12 TO 4:12, UNDERLAYMENT SHALL BE A MINIMUM OF TWO
LAYERS APPLIED AS FOLLOWS:
1. STARTING AT THE EAVE, A 19 INCH STRIP OF UNDERLAYMENT SHALL BE APPLIED
PARALLEL WITH THE EAVE AND FASTENED SUFFICIENTLY TO STAY IN PLACE.
2. STARTING AT THE EAVE, 36 INCH WIDE STRIPS OF UNDERLAYMENT FELT SHALL BE
APPLIED OVERLAPPING SUCCESSIVE SHEETS 18 INCHES AND FASTENED SUFFICIENTLY
TO STAY IN PLACE.

FOR ROOF SLOPED 4:12 AND GREATER, UNDERLAYMENT SHALL BE A MINIMUM OF ONE
LAYER OF UNDERLAYMENT FELT APPLIED AS FOLLOWS:
1. STARTING AT THE EAVE, UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION
PARALLEL TO THE EAVE, LAPPED 2 INCHES, AND FASTENED SUFFICIENTLY TO STAY
IN PLACE.

BASE AND CAP FLASHINGS:
BASE AND CAP FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S
INSTALLATION INSTRUCTIONS. BASE FLASHING SHALL BE OF EITHER CORROSION RESISTANT
METAL OF MINIMUM NOMINAL THICKNESS 0.019 INCH OR MINERAL SURFACE ROLL ROOFING
WEIGHING A MINIMUM OF 7 LBS PER 100 SQUARE FEET. CAP FLASHING SHALL BE
CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS OF 0.019 INCH.

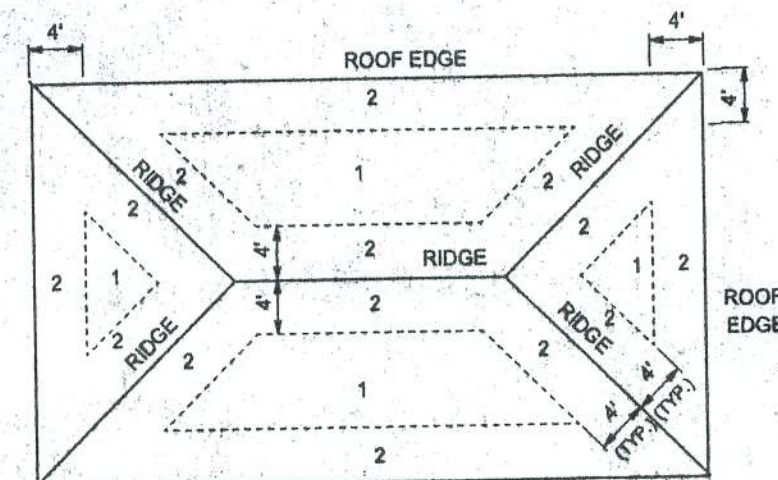
VALLEYS:
VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION
INSTRUCTIONS BEFORE APPLYING ASPHALT SHINGLES. VALLEY LININGS OF THE FOLLOWING
TYPES SHALL BE PERMITTED:

1. FOR OPEN VALLEYS LINED WITH METAL, THE VALLEY LINING SHALL BE AT LEAST 18 INCHES
WIDE AND OF ANY OF THE CORROSION RESISTANT METALS IN TABLE 1507.3.2.
2. FOR OPEN VALLEYS, VALLEY LINING OF TWO PLIES OF MINERAL SURFACE ROLL ROOFING
SHALL BE PERMITTED. THE BOTTOM LAYER SHALL BE 18 INCHES AND THE TOP LAYER
A MINIMUM OF 36 INCHES WIDE.
3. FOR CLOSED VALLEYS VALLEY LINING SHALL BE ONE OF THE FOLLOWING:
1. BOTH TYPES 1 AND 2 ABOVE, COMBINED
2. ONE PLY OF MINERAL SURFACE ROLL ROOFING AT LEAST 36 INCHES WIDE AND COMPLYING WITH
ASTM D 228.
3. SPECIALTY UNDERLAYMENT AT LEAST 36 INCHES WIDE AND COMPLYING WITH ASTM D 1970.

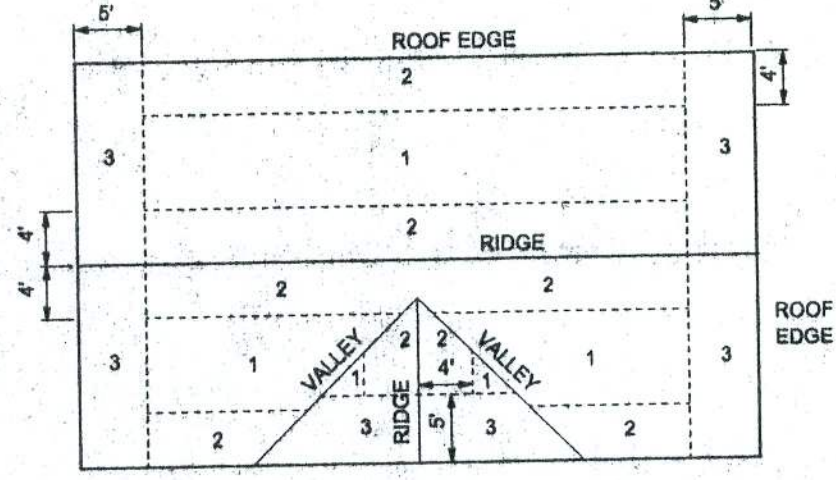
MATERIAL	MINIMUM THICKNESS (t)	GAGE	WEIGHT (LB)
COPPER			1
ALUMINUM	0.024		
STAINLESS STEEL		28	
GALVANIZED STEEL	0.0179	28 (ZINC COATED G90)	
ZINC-ALLOY LEAD PAINTED TERNE	0.027		2 1/2 20

ROOF SHEATHING FASTENINGS			
NAILING ZONE	SHEATHING TYPE	FASTENER	SPACING
1		8d COMMON OR 8d HOT DIPPED GALVANIZED BOX NAILS	6 in. o.c. EDGE 12 in. o.c. FIELD
2	1/2" O.S.B. OR 1532 CD		6 in. o.c. EDGE 6 in. o.c. FIELD
3			4 in. o.c. @ GABLE ENDWALL OR GABLE TRUSS 6 in. o.c. FIELD

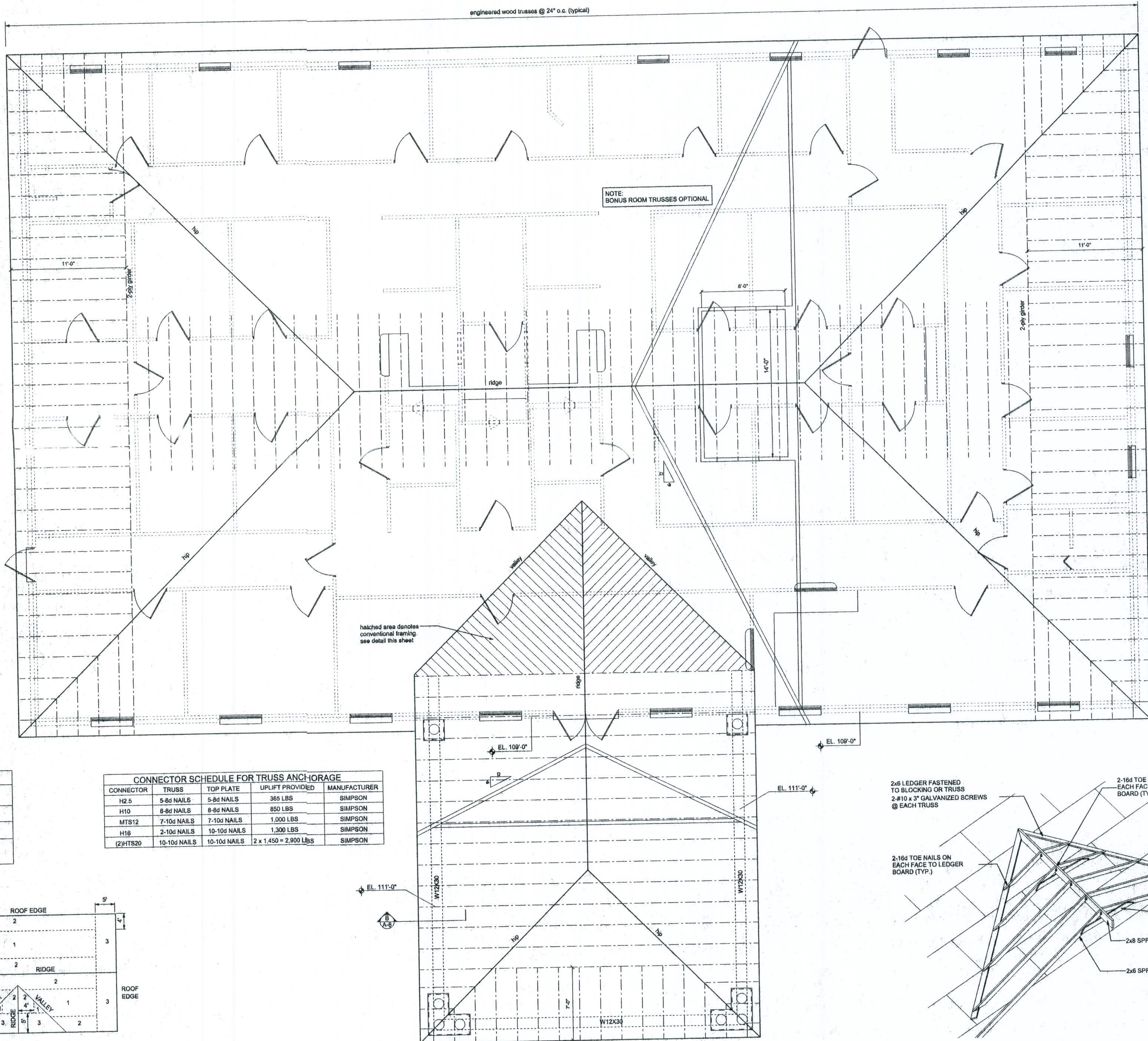
CONNECTOR SCHEDULE FOR TRUSS ANCHORAGE				
CONNECTOR	TRUSS	TOP PLATE	UPLIFT PROVIDED	MANUFACTURER
H2.5	5-8d NAILS	5-8d NAILS	365 LBS	SIMPSON
H10	8-8d NAILS	8-8d NAILS	850 LBS	SIMPSON
MTS12	7-10d NAILS	7-10d NAILS	1,000 LBS	SIMPSON
H16	2-10d NAILS	10-10d NAILS	1,300 LBS	SIMPSON
(2)HTS20	10-10d NAILS	10-10d NAILS	2 x 1,450 = 2,900 LBS	SIMPSON



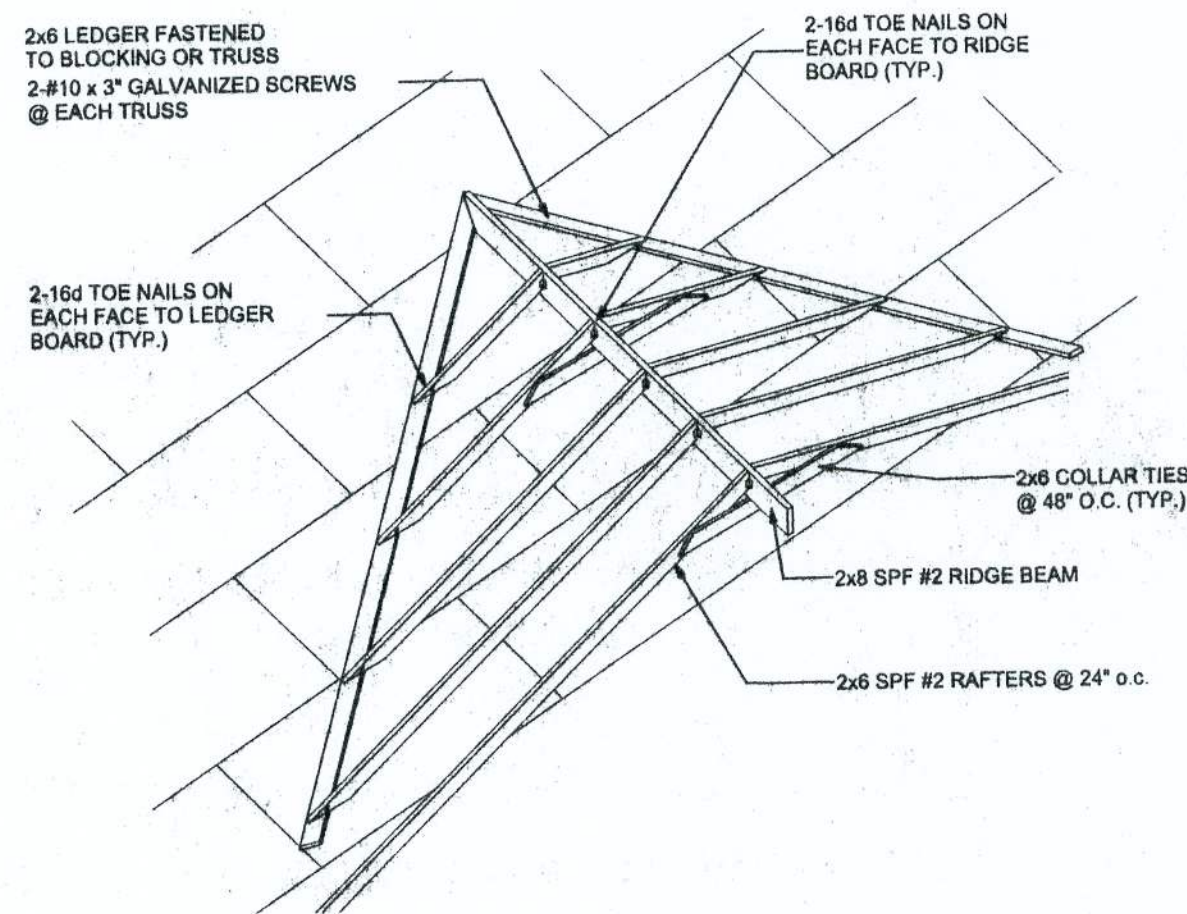
ROOF SHEATHING NAILING ZONES
(HIP ROOF)



ROOF SHEATHING NAILING ZONES
(GABLE ROOF)

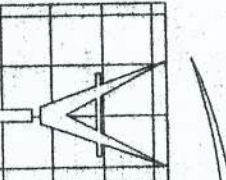


ROOF PLAN
SCALE: 3/16" = 1'-0"



ROOF INTERSECTION CONNECTION DETAIL
NTS

161 N.W. MADISON STREET
SUITE #102
LAKE CITY, FL 32055
(386)758-4209



Freeman
Design Group Inc.

DATE
6/22/04

DRAWN BY
W.H.F.

REVISIONS

SHEET
A-7

OF
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PROJECT NO.

DR. GIEBEIG OFFICE

CERTIFICATE OF AUTHORIZATION # 0008701