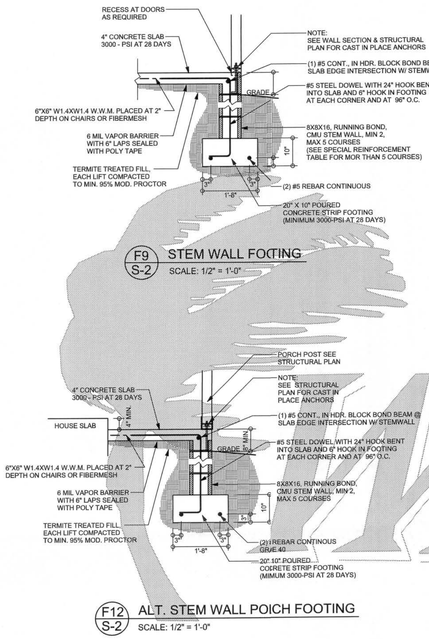


F9 S-2 STEM WALL FOOTING

SCALE: 1/2" = 1'-0"

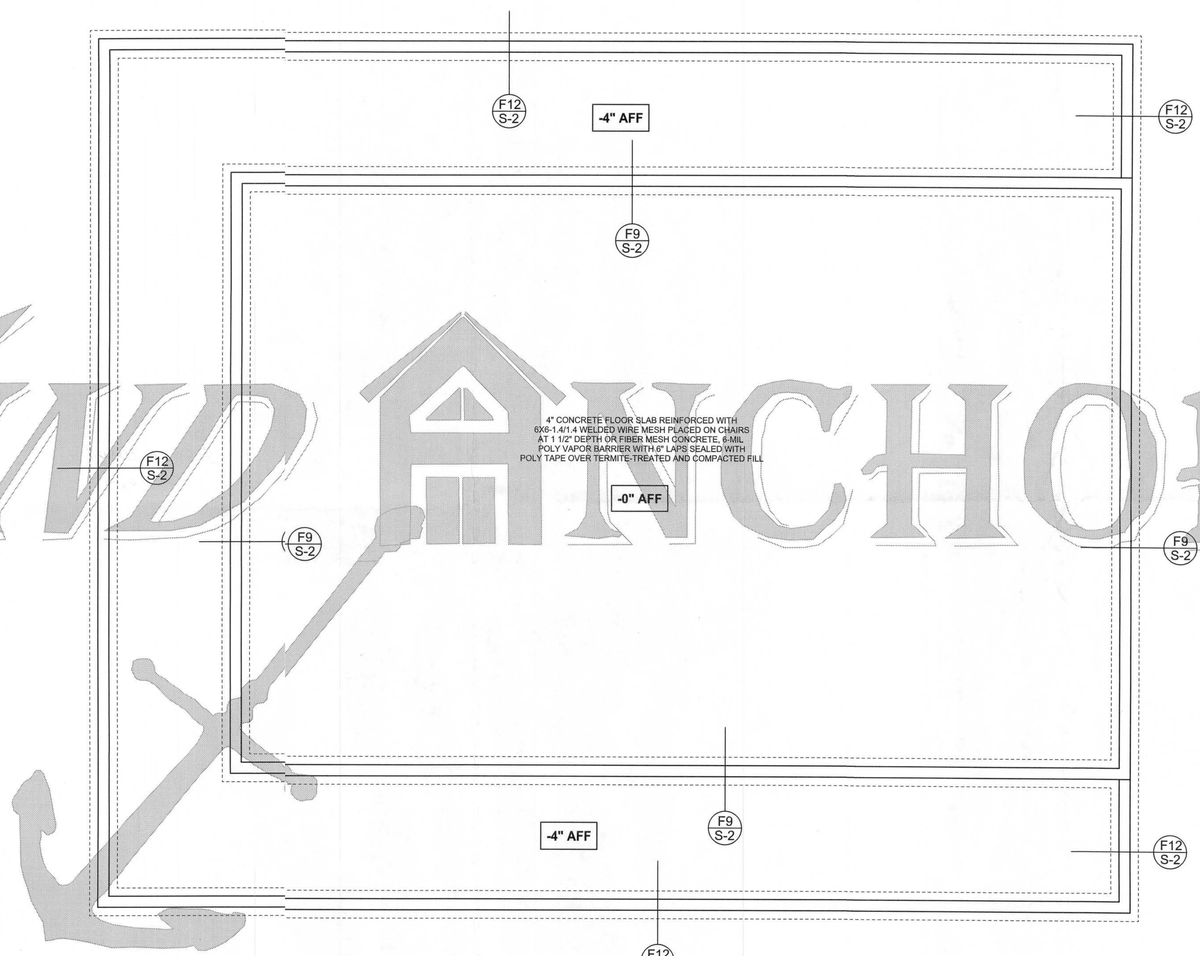
F12 S-2 ALT. STEM WALL POICH FOOTING

SCALE: 1/2" = 1'-0"

TALL STEM WALL TABLE

The table assumes 60 ksi reinforcing bars with 6" hook in the footing d bent 24" into the reinforced slab at the top. The vertical steel is to be placed toward themion side of the CMU wall (away from the soil pressure, within 2" of the exterior side ohe wall). If the wall is over 8' high, add Durowall ladder reinforcement at 16"OC vertically a horizontal bond beam with 185 continuous at mid height. For higher parts of the wall 1 CMU may be used with reinforcement as shown in the table below.

STEMWALL HEIGHT (FEET)	UNBALANCED BACKFILL HEIGHT	VERTICAL REINFORCEMENT FOR 8" CMU STEMWALL (INCHES O.C.)			VERTICAL REINFORCEMENT FOR 12" CMU STEMWALL (INCHES O.C.)		
		#5	#7	#8	#5	#7	#8
3.3	3.0	96	96	96	96	96	96
4.0	3.7	96	96	96	96	96	96
4.7	4.3	88	96	96	96	96	96
5.3	5.0	56	96	96	96	96	96
6.0	5.7	40	80	96	80	96	96
6.7	6.3	32	56	80	56	96	96
7.3	7.0	24	40	56	40	80	96
8.0	7.7	16	32	48	32	64	80
8.7	8.3	8	24	32	24	48	64
9.3	9.0	8	16	24	16	40	48



FOUNDATION PLAN

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

DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

REVISIONS	
31Jul07	

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS: Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY P.E. 53915

31JUL07

SEAL

Reuven & Dawn Refaelov Residence

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PRINTED DATE: July 31, 2007

DRAWN BY: | CHECKED BY:

FINALS DATE: 06 / Jul / 07

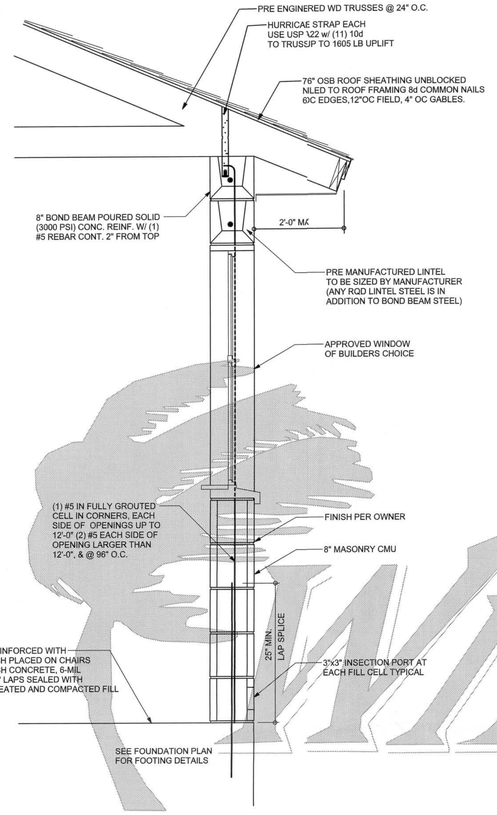
JOB NUMBER: 706275

DRAWING NUMBER **S-2**

OF 3 SHEETS

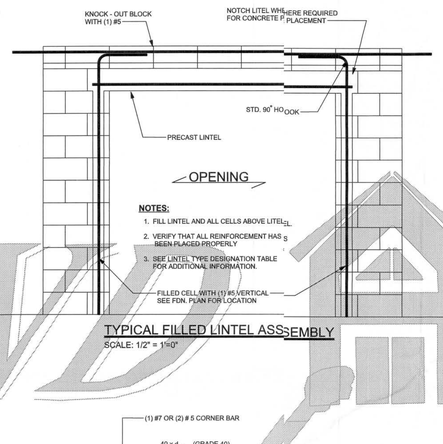
0707-32

2055



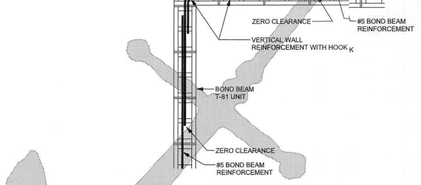
TYPICAL 1 STORY BLOCK WALL SECTION

SCALE: 1" = 1'-0"



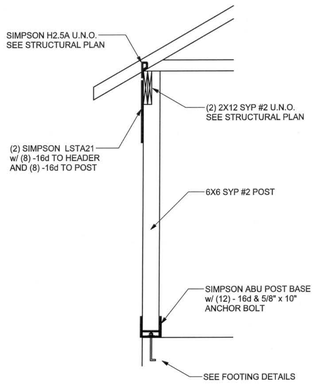
TYPICAL FILLED LINTEL ASSEMBLY

SCALE: 1/2" = 1'-0"



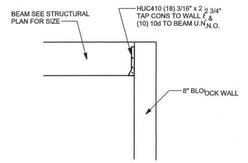
TYPICAL BOND BEAM CORNER DETAIL

SCALE: 1/2" = 1'-0"



TYPICAL PORCH POST DETAIL

SCALE: 1/2" = 1'-0"



BEAM TO BLOCK CONNECTION DETAIL

SCALE: 1/2" = 1'-0"

MASONRY / TRUSS ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS.	TRUSS CONNECTOR MASONRY *	
< 1205	TA22	10-10d x 1 1\2"
< 1605	TA22	11-10d
< 860	MTSM20	4 - 1/4"x2 1/4" TITEN IN BLOCK 7 - 10d IN TRUSS
< 1175	HTSM20	4 - 1/4"x2 1/4" TITEN IN BLOCK 10 - 10d IN TRUSS
< 1040	META20	7-10d, 1 1/2"
< 1490	META20	10-10d, 1 1/2"
< 1780	HETA20	7-16d
< 1780	LGT2	7 - 1/4"x2 1/4" TITEN IN BLOCK 14 - 16d SINKER IN GIRDER
< 2130	HHETA20	17-10d, 1 1/2"
< 2310	HHETA24	21-10d, 1 1/2"
< 3965	MGT	22-10d TO TRUSS 5/8 AB TO WALL 15" EMBEDMENT
< 10980	HGT-2	16-10d TO TRUSS (2) 3/4 AB TO WALL 15" EMBEDMENT
< 10530	HGT-3	16-10d TO TRUSS (2) 3/4 AB TO WALL 15" EMBEDMENT

ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS. SYP	UPLIFT LBS. SPF	TRUSS CONNECTOR*	TO PLATES	TO RAFTER/TRUSS	TO STUDS
< 420	< 245	H5A	3-8d	3-8d	
< 455	< 265	H5	4-8d	4-8d	
< 360	< 235	H4	4-8d	4-8d	
< 455	< 320	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2"	
< 1450	< 1245	HTS24	12-10d 1 1/2"	12-10d 1 1/2"	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LGT2	14 -16d	14 -16d	
		HEAVY GIRDER TIEDOWNS*			**TO FOUNDATION**
< 3965	< 3330	MGT		22 -10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 9250	< 9250	HGT-4		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
		STUD STRAP CONNECTOR*			**TO STUDS**
< 435	< 435	SSP DOUBLE TOP PLATE	3 -10d		4 -10d
< 455	< 420	SSP SINGLE SILL PLATE	1 -10d		4 -10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 -10d		8 -10d
< 825	< 600	DSP SINGLE SILL PLATE	2 -10d		8 -10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6			10-10d, 1 1/2"
< 1235	< 1165	LSTA18	14-10d		
< 1235	< 1235	LSTA21	16-10d		
< 1030	< 1030	CS20	18-8d		
< 1705	< 1705	CS16	28-8d		
		STUD ANCHORS*	**TO STUDS**		**TO FOUNDATION**
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTTI31	18-10d, 1 1/2"		1/2" AB
< 2775	< 2570	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3695	HTT16	18 - 16d		9/8" AB
< 1405	< 1400	PAHD42	16-16d		
< 3335	< 3335	HPAHD22	16-16d		
< 2200	< 2200	ABU44	12-16d		1/2" AB
< 2300	< 2300	ABU66	12-16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB

GRADE & SPECIES TABLE

		Fb (psi)	E (10^6 psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
GLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICROLAM	2900	2.0
PSL	PARALAM	2900	2.0

EXTERIOR WALL STUD TABLE FOR SPF #2 STUDS

(1) 2x4 @ 16" OC	TO 10'-9" WALL HEIGHT
(1) 2x4 @ 12" OC	TO 13'-0" WALL HEIGHT
(1) 2x6 @ 16" OC	TO 18'-10' WALL HEIGHT
(1) 2x6 @ 12" OC	TO 20.0' WALL HEIGHT

GENERAL NOTES:

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR 2004. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER, IT IS THE BUILDER'S RESPONSIBILITY VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO WIND LOAD ENGINEER FOR REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN UPLIFT CONNECTION 415LB EACH END, 2X8 RAFTERS 700 LB EACH END.

SITE PREPARATION: SITE ANALYSIS AND PREPARATION IS NOT PART OF THIS PLAN

FOUNDATION: CONFIRM THAT THE FOUNDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1000 PSF BEARING CAPACITY UNLESS VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F'c = 3000 PSI.

WELDED WIRE REINFORCED SLAB: 6" x 6" W1.4 x W1.4, FB = 85KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185; LOCATED IN MIDDLE OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3'.

FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTH 1/2 INCH TO 2 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C 1116. SUPPLIER TO PROVIDE ASTM C 1116 CERTIFICATION OF COMPLIANCE WHEN REQUESTED BY BUILDING OFFICIAL.

CONTROL JOINTS: WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302. JOINTS SHALL BE CUT WITHIN 12 HOURS OF SLAB PLACEMENT. THE LENGTH / WIDTH RATIOS OF SLAB AREAS SHALL NOT EXCEED 1.5 AND TYPICAL SPACING OF CUTS TO BE 12FT. DO NOT CUT WWM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)

REBAR: ASTM A 615, GRADE 60, DEFORMED BARS, FY = 60 KSI. ALL LAP SPLICES 40 * DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

GLULAM BEAMS: GLULAM BEAM, GLB, 24F-V3SP, Fb = 2.4ksi, E = 1800ksi; UNO. SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALCS.

ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS; 7/16" OSB SHEATHING, UNBLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (131), 6"OC PANEL EDGES, 12"OC INTERMEDIATE MEMBERS, GABLE ENDS AND DIAPHRAGM BOUNDARY; 4"OC, UNO.

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCT NUMBER FOR CONNECTORS, ANCHORS, AND REINFORCEMENT ARE LISTED FOR EXAMPLE NOT ENDORSEMENT. AN EQUIVALENT DEVICE OF THE SAME OR OTHER MANUFACTURER CAN BE SUBSTITUTED FOR ANY DEVICES LISTED IN THE EXAMPLE TABLES AS LONG AS IT MEETS THE REQUIRED LOAD CAPACITIES. MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED TO ACHIEVE RATED LOADS.

ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NO LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 15" IN GROUTED CMU.

WASHERS: WASHERS USED WITH 1/2" BOLTS TO BE 2" x 2" x 5/64"; WITH 5/8" BOLTS TO BE 3" x 3" x 9/64"; WITH 3/4" BOLTS TO BE 3" x 3" x 9/64"; WITH 7/8" BOLTS TO BE 3" x 3" x 5/16"; UNO.

NAILS: ALL NAILS ARE COMMON NAILS UNLESS OTHERWISE SPECIFIED OR ACCEPTED BY FBC TEST REPORTS AS HAVING EQUAL STRUCTURAL VALUES.

BUILDER'S RESPONSIBILITY

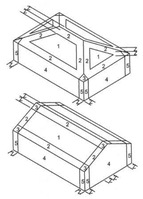
THE BUILDER AND OWNER ARE RESPONSIBLE FOR THE FOLLOWING, WHICH ARE SPECIFICALLY NOT PART OF THE WIND LOAD ENGINEER'S SCOPE OF WORK.
CONFIRM SITE CONDITIONS, FOUNDATION BEARING CAPACITY, GRADE AND BACKFILL HEIGHT, WIND SPEED AND DEBRIS ZONE, AND FLOOD ZONE.
PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR 2004 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.
PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMITS A CONTINUOUS LOAD PATH CONNECTION, CALL THE WIND LOAD ENGINEER IMMEDIATELY.
VERIFY THE TRUSS MANUFACTURER'S SEALED ENGINEERING INCLUDES TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS.

ROOF SYSTEM DESIGN

THE SEAL ON THESE PLANS FOR COMPLIANCE WITH FBCR 2004, SECTION R301.2.1 IS BASED ON REACTIONS, UPLIFTS, AND BEARING LOCATIONS IN TRUSS ENGINEERING SUBMITTED TO THE WIND LOAD ENGINEER. IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK ALL DETAILS OF THE COMPLETE ROOF SYSTEM DESIGN SUBMITTED BY THE TRUSS MANUFACTURER AND HAVE IT SIGNED, AND SEALED BY A DESIGN PROFESSIONAL FOR CORRECT APPLICATION OF FBC 2001 REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONSIBLE TO REVIEW EACH INDIVIDUAL TRUSS MEMBER AND THE TRUSS ROOF SYSTEM AS A WHOLE AND TO PROVIDE RESTRAINT FOR ANY LATERAL BRACING. THE BUILDER SHOULD USE CARE CHECKING THE ROOF DESIGN BECAUSE THE WIND LOAD ENGINEER IS SPECIFICALLY NOT RESPONSIBLE FOR THE TRUSS LAYOUT WHICH WAS CREATED BY THE TRUSS MANUFACTURER AND THE TRUSS DESIGNER ALSO DENIES RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEALED TRUSS SHEETS.

DESIGN DATA

WIND LOADS PER FLORIDA BUILDING CODE 2004 RESIDENTIAL, SECTION R301.2.1
(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS; MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 60 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60FT IN EXP. B, 30FT IN EXP. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.)
BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE
BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION
1.) BASIC WIND SPEED = 110 MPH
2.) WIND EXPOSURE = B
3.) WIND IMPORTANCE FACTOR = 1.0
4.) BUILDING CATEGORY = II
5.) ROOF ANGLE = 10-45 DEGREES
6.) MEAN ROOF HEIGHT = <30 FT
7.) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING)
8.) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2))



Zone	Effective Wind Area (ft2)			
	10		100	
1	19.9	-21.8	18.1	-18.1
2	19.9	-25.5	18.1	-21.8
2 O'hg		-40.6		-40.6
3	19.9	-25.5	18.1	-21.8
3 O'hg		-68.3		-42.4
4	21.8	-23.6	18.5	-20.4
5	21.8	-29.1	18.5	-22.6
Doors & Windows Worst Case (Zone 5, 10 ft2)		21.8		-29.1
8x7 Garage Door		19.5		-22.9
16x7 Garage Door		18.5		-21.0

DESIGN LOADS	
FLOOR	40 PSF (ALL OTHER DWELLING ROOMS)
	30 PSF (SLEEPING ROOMS)
	30 PSF (ATTICS WITH STORAGE)
	10 PSF (ATTICS WITHOUT STORAGE, <3:12)
ROOF	20 PSF (FLAT OR <4:12)
	16 PSF (4:12 TO <12:12)
	12 PSF (12:12 AND GREATER)
STAIRS 40 PSF (ONE & TWO FAMILY DWELLINGS)	
SOIL BEARING CAPACITY 1000PSF	
NOT IN FLOOD ZONE (BUILDER TO VERIFY)	

REVISIONS	
31Jul07	

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

VINDLOAD ENGINEER: Mark Disosway, 'E No.53915, PO\B 868, Lake City, FL 2056, 386-754-5419

!MENSIONS: ltated dimensions supercede scaled timensions. Refer all questions to lark Disosway, P.E. for resolution, to not proceed without clarification.

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ERTIFICATION: I hereby certify that I have xamined this plan, and that the applicable ortions of the plan, relating to wind engineering omply with section R301.2.1, florida building ode residential 2004, to the best of my nowledge.

IMITATION: This design is valid for one uilding, at specified location.

MARK DISOSWAY
P.E. 53915

17 Jul 07

SEAL

Reuven & Dawn
Refaelov Residence

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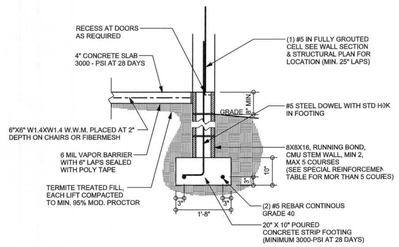
PRINTED DATE: August 17, 2007

DRAWN BY: | CHECKED BY:

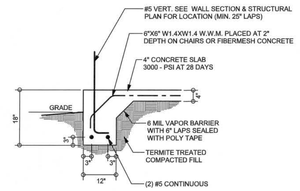
FINALS DATE: 06 / Jul / 07

JOB NUMBER: 706275a

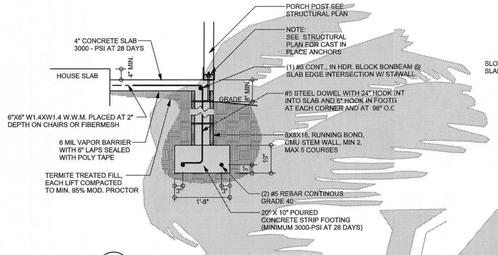
DRAWING NUMBER
S-1
OF 3 SHEETS



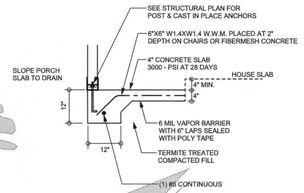
F17 S-2 STEM WALL FOOTING
SCALE: 1/2" = 1'-0"



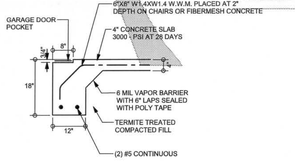
F16 S-2 MONOLITHIC FOOTING
SCALE: 1/2" = 1'-0"



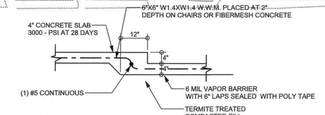
F12 S-2 ALT. STEM WALL PORCH FOOTING
SCALE: 1/2" = 1'-0"



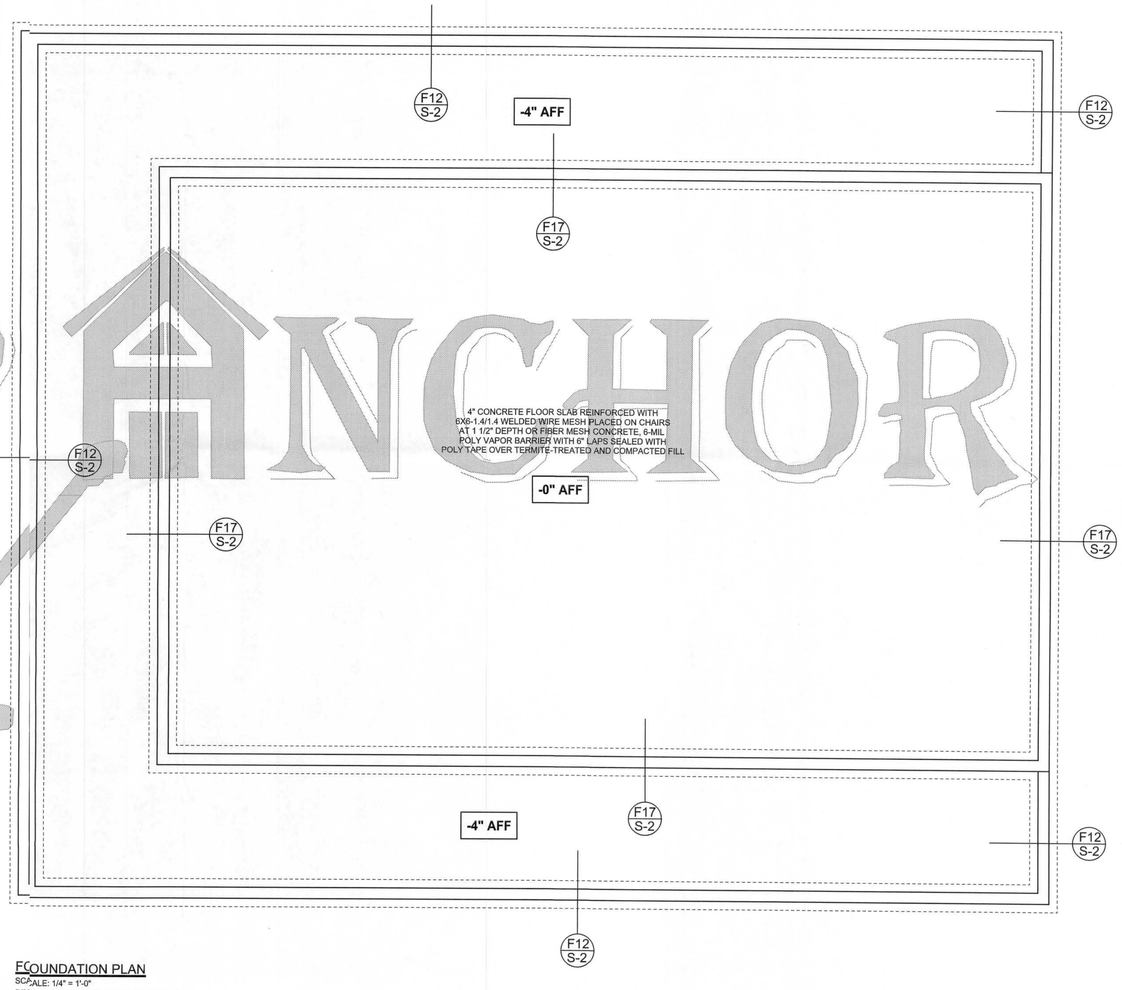
F5 S-2 PORCH FOOTING
SCALE: 1/2" = 1'-0"



F4 S-2 GARAGE DOOR FOOTING
SCALE: 1/2" = 1'-0"



F6 S-2 TYPICAL NON - BEARING STEP FOOTING
SCALE: 1/2" = 1'-0"



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"
DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

MASONRY NOTES:

MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/TMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DRAWINGS. ANY EXCEPTIONS TO ACI 530.1-02 MUST BE APPROVED BY THE ENGINEER IN WRITING.

	ACI530.1-02 Section	Specific Requirements
1.4A	Compressive strength	8" block bearing walls F'm = 1500 psi
2.1	Mortar	ASTM C 270, Type N, UNO
2.2	Grout	ASTM C 476, admixtures require approval
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond and 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.5"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 60, Fy = 60 ksi, Lap splices min 48 bar dia. (30" for #5)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft2 or 304SS
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft2 or 304SS
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval.
3.3.E.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.

TALL STEM WALL TABLE

The table assumes 60 ksi reinforcing bars with 6" hook in the footing and bent 24" into the reinforced slab at the top. The vertical steel is to be placed toward the tension side of the CMU wall (away from the soil pressure, within 2" of the exterior side of the wall). If the wall is over 8' high, add Durowall ladder reinforcement at 16"OC vertically or a horizontal bond beam with 1#5 continuous at mid height. For higher parts of the wall 12" CMU may be used with reinforcement as shown in the table below.

STEMWALL HEIGHT (FEET)	UNBALANCED BACKFILL HEIGHT	VERTICAL REINFORCEMENT FOR 8" CMU STEMWALL (INCHES O.C.)			VERTICAL REINFORCEMENT FOR 12" CMU STEMWALL (INCHES O.C.)		
		#5	#7	#8	#5	#7	#8
3.3	3.0	96	96	96	96	96	96
4.0	3.7	96	96	96	96	96	96
4.7	4.3	88	96	96	96	96	96
5.3	5.0	56	96	96	96	96	96
6.0	5.7	40	80	96	80	96	96
6.7	6.3	32	56	80	56	96	96
7.3	7.0	24	40	56	40	80	96
8.0	7.7	16	32	48	32	64	80
8.7	8.3	8	24	32	24	48	64
9.3	9.0	8	16	24	16	40	48

REVISIONS	
31Jul07	

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS: Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY P.E. 53915

SEAL

Reuven & Dawn Refaelov Residence

ADDRESS:
Lot 47 Spring Run S/D
Columbia County, Florida

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Phone: (386) 754 - 5419
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PRINTED DATE: August 17, 2007

DRAWN BY: | CHECKED BY:

FINALS DATE: 06 / Jul / 07

JOB NUMBER: 706275a

DRAWING NUMBER
S-2
OF 3 SHEETS

MATERIALS

1. f'c 8" precast lintel = 3500 psi
2. f'c prestressed lintel = 6000 psi
3. Grout per ASTM C476 f'c = 3000 psi w/ maximum 3/8 inch aggregate & 8 to 11 inch slump
4. Concrete Masonry Units (CMU) per ASTM C90 w/minimum net area compressive strength = 1900 psi
5. Rebar per ASTM A615 grade 60
6. Prestressing strand per ASTM A416 grade 270 low relaxation
7. Mortar per ASTM C270 type M or S

GENERAL NOTES

1. Provide full mortar bed and head joints.
2. Shore filled lintels as required.
3. Installation of lintel must comply with the architectural and/or structural documents.
4. U-Lintels are manufactured with 5 1/2" long notches at the ends to accomodate vertical cell reinforcing and grouting.
5. All lintels meet or exceed L/360 deflection, except lintels 17'-4" and longer with a nominal height of 8" meet or exceed L/180 deflection.
6. Bottom field added rebar to be located at the bottom of the lintel cavity.
7. 7/32" diameter wire stirrups are welded to the bottom steel for mechanical anchorage.
8. Cast-in-place concrete may be provided in composite lintel in lieu of concrete masonry units.
9. Safe load rating based on rational design analysis per ACI 318 and ACI 530
10. Product Approvals: Miami-Dade County, Florida No. 03-0606.05
11. The exterior surface of lintels installed in exterior concrete masonry walls shall have a coating of stucco applied in accordance with ASTM C-296 or other approved coating.
12. Lintels loaded simultaneously with vertical (gravity or uplift) and horizontal (lateral) loads should be checked for the combined loading with the following equation:

$$\frac{\text{Applied vertical load}}{\text{Safe vertical load}} + \frac{\text{Applied horizontal load}}{\text{Safe horizontal load}} \leq 1.0$$

13. Additional lateral load capacity can be obtained by the designer by providing additional reinforced concrete masonry above the lintel. See detail at right:

TYPE DESIGNATION

F = FILLED WITH GROUT / U = UNFILLED / S = SOLID

QUANTITY OF #5 FIELD ADDED REBAR AT BOTTOM OF LINTEL CAVITY

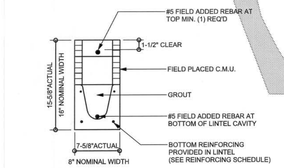
8F16-1B/1T-4'-0"

NOMINAL WIDTH

NOMINAL HEIGHT

LENGTH

QUANTITY OF #5 FIELD ADDED REBAR AT TOP



SAFE LOAD TABLE NOTES

1. All values based on minimum 4 inch nominal bearing.
   Exception: Safe loads for unfilled lintels must be reduced by 20% if bearing length is less than 6 1/2 inches.
2. N.R. = Not Rated
3. Safe loads are superimposed allowable loads.
4. Safe loads based on grade 40 or grade 60 field rebar.
5. One #7 rebar may be substituted for two #5 rebars in 8" lintels only
6. The designer may evaluate concentrated loads from the safe load tables by calculating the maximum resisting moment and shear at d-away from face of support.
7. For composite lintel heights not shown, use safe load from next lower height shown.
8. For lintels lengths not shown, use safe load from next longest length shown
9. All safe loads in units of pounds per linear foot
10. All safe loads based on simply supported span.
11. The number in the the parenthesis indicates the percent reduction for grade 40 field added rebar.
    Example 7'-6" lintel type 8F32-1B safe gravity load = 6472#/0.0469;(15)%0.0781; w/ 15% reduction 6472 ⇒ (.85) = 5501 plf

SAFE GRAVITY LOADS FOR 8" PRECAST & PRESTRESSED U-LINTELS

LENGTH \ TYPE	8U8	8F8-0B / 8F8-1B	8F12-0B / 8F12-1B	8F16-0B / 8F16-1B	8F20-0B / 8F20-1B	8F24-0B / 8F24-1B	8F28-0B / 8F28-1B	8F32-0B / 8F32-1B
2'-10" (34") PRECAST	2231	3069	4605	6113	7547	8974	10394	11809
		3069	4605	6113	7547	8974	10394	11809
3'-6" (42") PRECAST	2231	3069	3719	5163	6607	8054	9502	10951
		3069	4605	6113	7547	8974	10394	11809
4'-0" (48") PRECAST	1966	2561	2751	3820	4890	5961	7034	8107
		2693	4605	6113	7547	8974	10394	11809
4'-6" (54") PRECAST	1599	1969	2110	2931	3753	4576	5400	6224
		2189	4375	6113	7547 (73)	8672	10294	11809
5'-4" (64") PRECAST	1217	1349	1438	1999	2560	3123	3686	4249
		1663	3090	5365	7547(56)	7342 (19)	8733 (19)	10127(19)
5'-10" (70") PRECAST	1062	1105	1173	1631	2090	2549	3009	3470
		1451	2622	4360	7168 (45)	6036 (19)	7181 (19)	8328 (20)
6'-6" (78") PRECAST	908	1238	2177	3480	3031	3707	4383	5061
		1238	2177	3480	5381	8360	10394(37)	8825 (14)
7'-6" (90") PRECAST	743	1011	1729	2632	2205	2698	3191	3685
		1011	1729	2661	3898	5681	8467(44)	6472 (15)
9'-4" (112") PRECAST	554	699	1160	1625	2564	3486	2818	3302
		752	1245	1843	2564	3486	4705(37)	6390(47)
10'-6" (126") PRECAST	475	535	890	1247	2093	2777	2163	2536
		643	1052	1533	2093	2781	3643 (36)	4754 (45)
11'-4" (136") PRECAST	362	582	945	1366	1846	2423	3127	4006
		582	945	1366	1846	2423	3127	4006
12'-0" (144") PRECAST	337	540	873	1254	1684	2193	2805	3552
		540	873	1254	1684	2193	2805	3552
13'-4" (160") PRECAST	296	471	755	1075	1428	1838	2316	2883
		471	755	1075	1428	1838	2316	2883
14'-0" (168") PRECAST	279	424	706	1002	1326	1697	2127	2630
		442	706	1092	1326	1697	2127	2630
14'-8" (176") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		458	783	1370	1902	2245	2517	2712
15'-4" (184") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		412	710	1250	1733	2058	2320	2513
17'-4" (208") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		300	536	950	1326	1609	1849	2047
19'-4" (232") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		236	418	750	1037	1282	1515	1716
21'-4" (256") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		180	340	598	845	1114	1359	1468
22'-0" (264") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		165	316	550	784	1047	1285	1399
24'-0" (288") PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR
		129	250	450	654	884	1092	1222

SAFE UPLIFT LOADS FOR 8" PRECAST & PRESTRESSED U-LINTELS

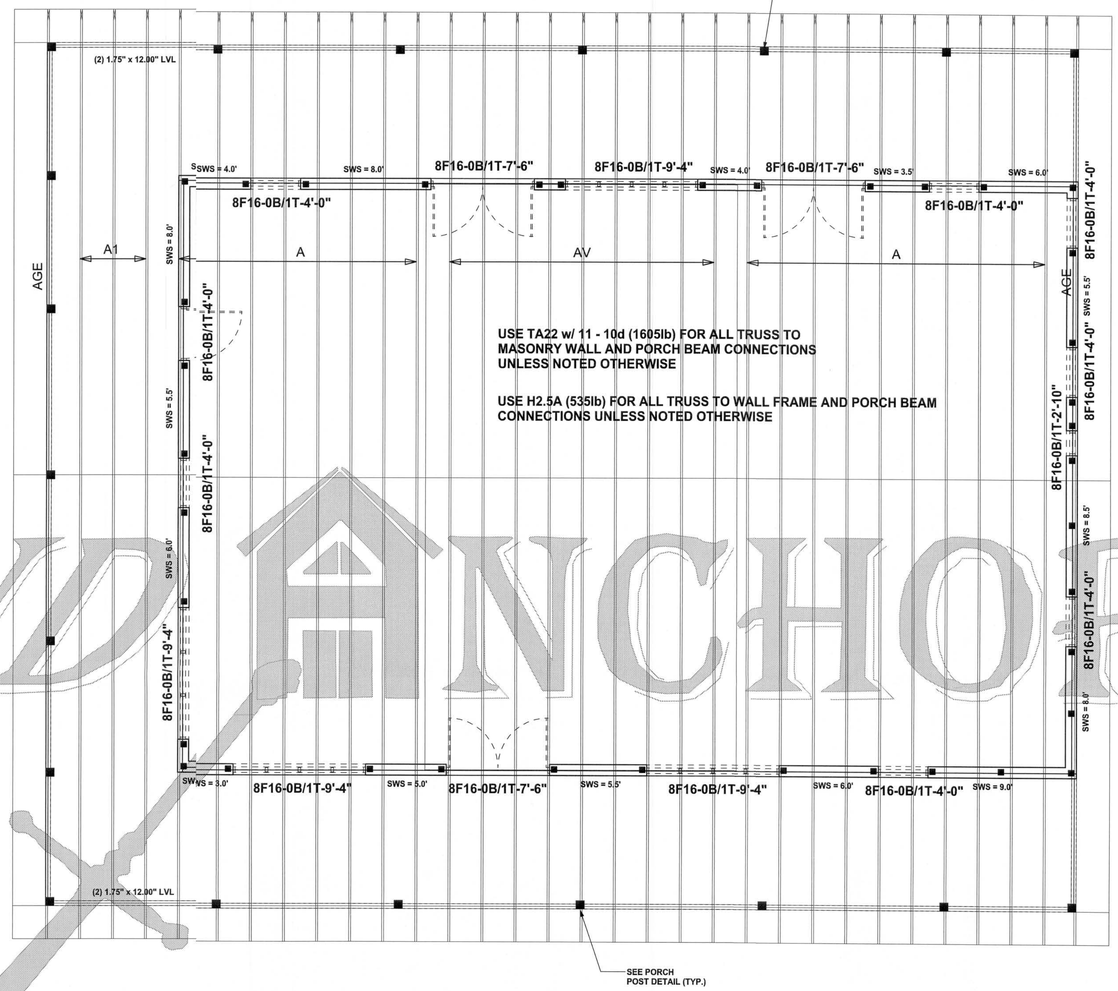
LENGTH \ TYP	8F8-1T / 8F8-2T	8F12-1T / 8F12-2T	8F16-1T / 8F16-2T	8F20-1T / 8F20-2T	8F24-1T / 8F24-2T	8F28-1T / 8F28-2T	8F32-1T / 8F32-2T
2'-10" (34") PRECAST	1972	3173	4460	5747	7034	8321	9608
	1972	3173	4460	5747	7034	8321	9608
3'-6" (42") PRECAST	1569	2524	3547	4569	5591	6613	7636
	1569	2524	3547	4569	5591	6613	7636
4'-0" (48") PRECAST	1363	2192	3079	3966	4853	5740	6627
	1363	2192	3079	3966	4853	5740	6627
4'-6" (54") PRECAST	1207	1940	2724	3508	4292	5077	5861
	1207	1940	2724	3508	4292	5077	5861
5'-4" (64") PRECAST	1016	1632	2293	2949	3607	4265	4924
	1016	1632	2293	2949	3607	4265	4924
5'-10" (70") PRECAST	929	1492	2093	2694	3295	3897	4498
	929	1492	2093	2694	3295	3897	4498
6'-6" (78") PRECAST	835 (20)	1340	1880	2419	2959	3498	4038
	835	1340	1880	2419	2959	3498	4038
7'-6" (90") PRECAST	727 (20)	1021	1634 (10)	2102 (10)	2571 (10)	3039 (10)	3508 (10)
	727	1166	1634 (10)	2102 (10)	2571	3039	3508
9'-4" (112") PRECAST	591	680	1133 (10)	1471 (10)	1811 (10)	2152 (10)	2494 (10)
	591	851	1328	1705	2084	2463	2842
10'-6" (126") PRECAST	530	552	914 (10)	1185 (10)	1458 (10)	1732 (10)	2007 (10)
	530	686	1183	1526	1865	2204	2544
11'-4" (136") PRECAST	474	485	798 (10)	1034 (10)	1272 (10)	1510 (10)	1749 (10)
	494	599	1028	1422	1738	2053	2369
12'-0" (144") PRECAST	470 (8)	441	723 (10)	936 (10)	1151 (10)	1366 (10)	1582 (10)
	470	543	928	1349	1649	1948	2247
13'-4" (160") PRECAST	418 (10)	373	606 (10)	783 (10)	962 (10)	1141 (10)	1321 (10)
	428	455	770	1145	1444	1718	1993
14'-0" (168") PRECAST	384 (10)	346	559 (10)	723 (10)	887 (10)	1052 (10)	1218 (10)
	410	420	709	1050	1434 (8)	1694 (8)	1954 (7)
14'-8" (176") PRESTRESSED	239	323	519 (10)	671 (10)	823 (10)	976 (10)	1129 (10)
	246	390	655	968	1324 (8)	1625 (11)	1874 (11)
15'-4" (184") PRESTRESSED	224	302	485 (10)	626 (10)	767 (10)	909 (10)	1052 (10)
	230	364	609	897	1224 (8)	1562 (14)	1801 (14)
17'-4" (208") PRESTRESSED	197	255	404 (10)	520 (10)	637 (10)	754 (10)	872 (10)
	192	303	500	732	993 (8)	1268 (14)	1470 (14)
19'-4" (232") PRESTRESSED	162	222	347 (10)	446 (10)	546 (10)	646 (10)	746 (10)
	166	261	424	616	831 (8)	1057 (14)	1225 (14)
21'-4" (256") PRESTRESSED	142	198	306 (10)	393 (10)	480 (10)	567 (10)	654 (10)
	142	230	369	531	713 (7)	903 (13)	1046 (13)
22'-0" (264") PRESTRESSED	137	192	295 (10)	378 (10)	461 (10)	545 (10)	629 (10)
	137	221	354	508	681 (7)	861 (13)	997 (13)
24'-0" (288") PRESTRESSED	124	175	267 (10)	341 (10)	416 (10)	491 (10)	566 (10)
	124	200	316	450	600 (7)	756 (10)	875 (13)

SAFE GRAVITY LOADS FOR 8" PRECAST w/ 2" RECESS DOOR U-LINTELS

LENGTH \ TYP	8RU6	8RF6-0B / 8RF6-1B	8RF10-0B / 8RF10-1B	8RF14-0B / 8RF14-1B	8RF18-0B / 8RF18-1B	8RF22-0B / 8RF22-1B	8RF26-0B / 8RF26-1B	8RF30-0B / 8RF30-1B
4'-4" (52") PRECAST	1635	1749	3355	3280	4349	5421	6493	7567
		1891	3699	5206	6639	8060	9479	10893
4'-6" (54") PRECAST	1494	1596	3063	2992	3968	4946	5924	6904
		1756	3699	5206	6639	8060	9479	10893
5'-8" (68") PRECAST	866	920	1770	1716	2277	2839	3402	3966
		1167	2481	4567	6389	8060 (34)	7917 (19)	9311 (19)
5'-10" (70") PRECAST	810	859	1653	1600	2124	2649	3174	3700
		1113	2342	4242	6639 (36)	8060 (36)	7402 (19)	8706 (19)
6'-8" (80") PRECAST	797	901	1825	3120	5048	7747	9448	7360
		901	1825	3120	5048	7915	9479	10893 (22)
7'-6" (90") PRECAST	669	755	1490	2459	3776	5743	7239	5623
		755	1490	2459	3776	5743	8098 (19)	10893 (28)
9'-8" (116") PRECAST	411	466	999	1568	2253	3129	4091	3146
		526	999	1568	2253	3129	4150	5891 (47)

SAFE UPLIFT LOADS FOR 8" PRECAST w/ 2" RECESS DOOR U-LINTELS

LENGTH \ TYPE	8RF6-1T / 8RF6-2T	8RF10-1T / 8RF10-2T	8RF14-1T / 8RF14-2T	8RF18-1T / 8RF18-2T	8RF22-1T / 8RF22-2T	8RF26-1T / 8RF26-2T	8RF30-1T / 8RF30-2T
4'-4" (52") PRECAST	905	1748	2635	3522	4409	5296	6183
	905	1748	2635	3522	4409	5296	6183
4'-6" (54") PRECAST	887	1675	2525	3374	4224	5074	5924
	887	1675	2525	3374	4224	5074	5924
5'-8" (68") PRECAST	675	1301	1960	2618	3277	3935	4594
	675	1301	1960	2618	3277	3935	4594
5'-10" (70") PRECAST	655	1262	1900	2538	3176	3815	4453
	655	1262	1900	2538	3176	3815	4453
6'-8" (80") PRECAST	570	1012	1651	2204	2758	3312	3865
	570	1097	1651	2204	2758	3312	3865
7'-6" (90") PRECAST	506	797	1462 (8)	1952 (7)	2442 (8)	2931 (8)	3257
	506	967	1462	1952	2442	2931	3421
9'-8" (116") PRECAST	395	491	931 (10)	1301 (10)	1640 (11)	1980 (10)	2322 (10)
	395	589	1135	1514	1893	2272	2652



STRUCTURAL PLAN

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

STRUCTURAL PLAN NOTES

SN-1 ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2X12 SYP#2 (U.N.O.)

SN-2 ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD EACH SIDE (U.N.O.)

SN-3 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

SN-4 PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BCSI1-03, BCSI-B1, BCSI-B2, & BCSI-B3. BCSI-B1, BCSI-B2, & BCSI-B3 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED TRUSS PACKAGE

HEADER LEGEND

(2) 2X12X0',1J 1K — HEADER/BEAM CALL-OUT (U.N.O.)

- NUMBER OF KING STUDS (FULL LENGTH)
- NUMBER OF JACK STUDS (UNDER HEADER)
- SPAN OF HEADER
- SIZE OF HEADER MATERIAL
- NUMBER OF PLIES IN HEADER

DOOR & WINDOW BUCK ATTACHMENT

TAPCON IN FACE OF CMU
2 1/2" MIN. EDGE DISTANCE
1 1/4" MIN. EMBEDMENT
3" MIN. SPACING

WINDOWS & DOORS UP TO 6'X8'

3/16" TAPCONS @ 2' O.C.
1/4" TAPCONS @ 3' O.C.

WINDOWS & DOORS UP TO 8'X12'

3/16" TAPCONS @ 16" O.C.
1/4" TAPCONS @ 24" O.C.

SLIDERS UP TO 8'HX20'W

3/16" TAPCONS @ 12" O.C.
1/4" TAPCONS @ 18" O.C.

GARAGE DOOR UP TO 10'W

(2) 3/16" TAPCONS & 16" O.C.
(2) 1/4" TAPCONS & 24" O.C.

GARAGE DOOR UP TO 18'W

(2) 3/16" TAPCONS & 8" O.C.
(2) 1/4" TAPCONS & 12" O.C.

- INDICATES LOCATION OF #5 VERTICAL DOWEL IN CMU CELL, FILLED SOLID W/ 3000 P.S.I. CONC.
- INDICATES LOCATION OF (2) #5 VERTICAL DOWEL IN CMU CELL, FILLED SOLID W/ 3000 P.S.I. CONC.

TOTAL SHEAR WALL SEGMENTS

SWS = 0.0' INDICATES SHEAR WALL SEGMENTS

	REQUIRED	ACTUAL
TRANSVERSE	36.8'	41.5'
LONGITUDINAL	31.2'	54.0'

CONNECTIONS, WALL, & HEADER DESIGN IS BASED ON REACTIONS & UPLIFTS FROM TRUSS ENGINEERING FURNISHED BY BUILDER. ANDERSON TRUSS JOB #7-193

REVISIONS	
31Jul07	

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS:
Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY
P.E. 53915

SEAL

Reuven & Dawn Refaelov Residence

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PRINTED DATE: August 17, 2007

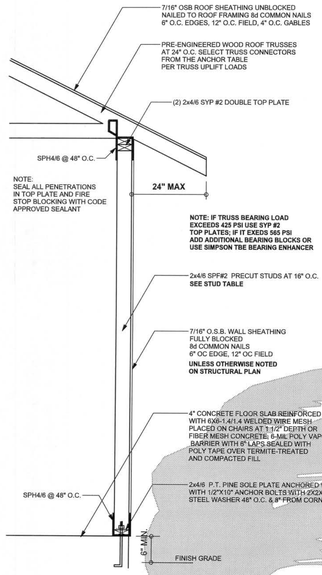
DRAWN BY: | CHECKED BY:

FINALS DATE: 06 / Jul / 07

JOB NUMBER: 706275a

DRAWING NUMBER **S-3**

OF 3 SHEETS



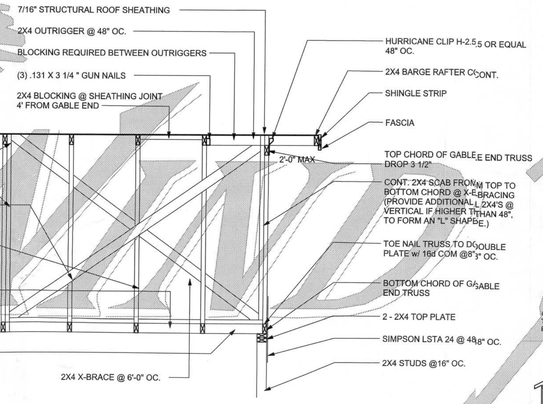
ONE STORY WALL SECTION

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

EXTERIOR WALL STUD TABLE FOR SPF #2 STUDS

(1) 2x4 @ 16" OC	TO 11'-9" STUD HEIGHT
(1) 2x4 @ 12" OC	TO 13'-0" STUD HEIGHT
(1) 2x6 @ 16" OC	TO 18'-10' STUD HEIGHT
(1) 2x6 @ 12" OC	TO 20.0' STUD HEIGHT

THIS STUD HEIGHT TABLE IS PER WFCM 2001, TABLE 3.20B. EXTERIOR LOAD BEARING & NON LOAD BEARING STUD LENGTHS RESISTING INTERIOR ZONE WINDLOADS 110 MPH EXPOSURE B. STUD SPACINGS SHALL BE MULTIPLIED BY 0.85 FOR FRAMING LOCATED WITHIN 4 FEET OF CORNERS FOR END ZONE LOADING. EXAMPLE 16" O.C. x 0.85 = 13.6" O.C.

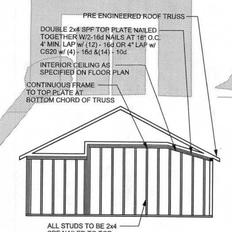


TYPICAL GABLE END (X-BRACING)

ALL MEMBERS SHALL BE SYP

GRADE & SPECIES TABLE

		Fb (psi)	E (10^6 psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
GLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICRO.LAM	1600	1.9
PSL	PARALAM	2900	2.0



CONTINUOUS FRAME TO CEILING DIAPHRAGM DETAIL

SCALE: N.T.S.

BUILDER'S RESPONSIBILITY

THE BUILDER AND OWNER ARE RESPONSIBLE FOR THE FOLLOWING, WHICH ARE SPECIFICALLY NOT PART OF THE WIND LOAD ENGINEER'S SCOPE OF WORK.

CONFIRM SITE CONDITIONS, FOUNDATION BEARING CAPACITY, GRADE AND BACKFILL HEIGHT, WIND SPEED AND DEBRIS ZONE, AND FLOOD ZONE.

PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR 2004 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.

PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMITS A CONTINUOUS LOAD PATH CONNECTION, CALL THE WIND LOAD ENGINEER IMMEDIATELY.

VERIFY THE TRUSS MANUFACTURER'S SEALED ENGINEERING INCLUDES TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS.

ROOF SYSTEM DESIGN

THE SEAL ON THESE PLANS FOR COMPLIANCE WITH FBCR 2004, SECTION R301.2.1 IS BASED ON REACTIONS, UPLIFTS, AND BEARING LOCATIONS IN TRUSS ENGINEERING SUBMITTED TO THE WIND LOAD ENGINEER, IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK ALL DETAILS OF THE COMPLETE ROOF SYSTEM DESIGN SUBMITTED BY THE TRUSS MANUFACTURER AND HAVE IT SIGNED, AND SEALED BY A DESIGN PROFESSIONAL FOR CORRECT APPLICATION OF FBC 2001 REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONSIBLE TO REVIEW EACH INDIVIDUAL TRUSS MEMBER AND THE TRUSS ROOF SYSTEM AS A WHOLE AND TO PROVIDE RESTRAINT FOR ANY LATERAL BRACING. THE BUILDER SHOULD USE CARE CHECKING THE ROOF DESIGN BECAUSE THE WIND LOAD ENGINEER IS SPECIFICALLY NOT RESPONSIBLE FOR THE TRUSS LAYOUT WHICH WAS CREATED BY THE TRUSS MANUFACTURER AND THE TRUSS DESIGNER ALSO DENIES RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEALED TRUSS SHEETS.

GENERAL NOTES:

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR 2004. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO WIND LOAD ENGINEER FOR REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN UPLIFT CONNECTION 415LB EACH END; 2X8 RAFTERS 700 LB EACH END.

SITE PREPARATION: SITE ANALYSIS AND PREPARATION IS NOT PART OF THIS PLAN

FOUNDATION: CONFIRM THAT THE FOUNDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1000 PSF BEARING CAPACITY UNLESS VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F'_C = 3000 PSI.

WELDED WIRE REINFORCED SLAB: 6" x 6" W1.4 x W1.4, FB = 85KSI. WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185; LOCATED IN MIDDLE OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3'.

FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTH 1/2 INCH TO 2 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C 1116. SUPPLIER TO PROVIDE ASTM C 1116 CERTIFICATION OF COMPLIANCE WHEN REQUESTED BY BUILDING OFFICIAL.

CONTROL JOINTS: WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302. JOINTS SHALL BE CUT WITHIN 12 HOURS OR SLAB PLACEMENT. THE LENGTH / CUT WWM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)

REBAR: ASTM A 615, GRADE 60, DEFORMED BARS, FY = 60 KSI. ALL LAP SPLICES 40 " DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

GLULAM BEAMS: GLULAM BEAM, GLB, 24F-V3SP, Fb = 2.4ksi, E = 1800ksi; UNO. SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALCS.

ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS; 7/16" OSB SHEATHING, UNBLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (.131), 6"OC PANEL EDGES, 12"OC INTERMEDIATE MEMBERS, GABLE ENDS AND DIAPHRAGM BOUNDARY; 4"OC, UNO.

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCT NUMBER FOR CONNECTORS, ANCHORS, AND REINFORCEMENT ARE LISTED FOR EXAMPLE NOT ENDORSEMENT. AN EQUIVALENT DEVICE OF THE TABLES AS LONG AS IT MEETS THE REQUIRED LOAD CAPACITIES. MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED TO ACHIEVE RATED LOADS.

ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NO LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 15" IN GROUTED CMU.

WASHERS: WASHERS USED WITH 1/2" BOLTS TO BE 2" x 2" x 9/64"; WITH 5/8" BOLTS TO BE 3" x 3" x 9/64"; WITH 3/4" BOLTS TO BE 3" x 3" x 9/64"; WITH 7/8" BOLTS TO BE 3" x 3" x 5/16"; UNO.

NAILS: ALL NAILS ARE COMMON NAILS UNLESS OTHERWISE SPECIFIED OR ACCEPTED BY FBC TEST REPORTS AS HAVING EQUAL STRUCTURAL VALUES.

ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS. SYP	UPLIFT LBS. SPF	TRUSS CONNECTOR*	TO PLATES	TO RAFTER/TRUSS	TO STUDS
< 420	< 245	H5A	3-8d	3-8d	
< 455	< 265	H5	4-8d	4-8d	
< 360	< 235	H4	4-8d	4-8d	
< 455	< 320	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2"	
< 1450	< 1245	HTS24	12-10d 1 1/2"	12-10d 1 1/2"	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LGT2	14 -16d	14 -16d	
		HEAVY GIRDER TIEDOWNS*			**TO FOUNDATION**
< 3965	< 3330	MGT		22 -10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 9250	< 9250	HGT-4		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
		STUD STRAP CONNECTOR*			**TO STUDS**
< 435	< 435	SSP DOUBLE TOP PLATE	3 -10d		4 -10d
< 455	< 420	SSP SINGLE SILL PLATE	1 -10d		4 -10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 -10d		8 -10d
< 825	< 600	DSP SINGLE SILL PLATE	2 -10d		8 -10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6			10-10d, 1 1/2"
< 1235	< 1165	LSTA18	14-10d		
< 1235	< 1235	LSTA21	16-10d		
< 1030	< 1030	CS20	18-8d		
< 1705	< 1705	CS16	28-8d		
		STUD ANCHORS*	**TO STUDS**		**TO FOUNDATION**
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTT31	18-10d, 1 1/2"		1/2" AB
< 2775	< 2870	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3695	HTT16	18 - 16d		5/8" AB
< 1400	< 1400	PAHD42	16-16d		
< 3335	< 3335	HPAHD22	16-16d		
< 2200	< 2200	ABU44	12-16d		1/2" AB
< 2300	< 2300	ABU66	12-16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB

DESIGN DATA

WIND LOADS PER FLORIDA BUILDING CODE 2004 RESIDENTIAL, SECTION R301.2.1

(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS; MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 60 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60FT IN EXP. B, 30FT IN EXP. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.)

BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE

BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION

1.) BASIC WIND SPEED = 110 MPH

2.) WIND EXPOSURE = B

3.) WIND IMPORTANCE FACTOR = 1.0

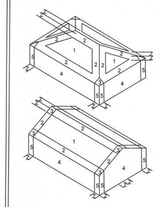
4.) BUILDING CATEGORY = II

5.) ROOF ANGLE = 10-45 DEGREES

6.) MEAN ROOF HEIGHT = <30 FT

7.) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING)

8.) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2))



Zone	Effective Wind Area (ft2)			
	10		100	
1	19.9	-21.8	18.1	-18.1
2	19.9	-25.5	18.1	-21.8
2 O'hg		-40.6		-40.6
3	19.9	-25.5	18.1	-21.8
3 O'hg		-68.3		-42.4
4	21.8	-23.6	18.5	-20.4
5	21.8	-29.1	18.5	-22.6
Doors & Windows Worst Case (Zone 5, 10 ft2)		21.8		-29.1
8x7 Garage Door		19.5		-22.9
16x7 Garage Door		18.5		-21.0

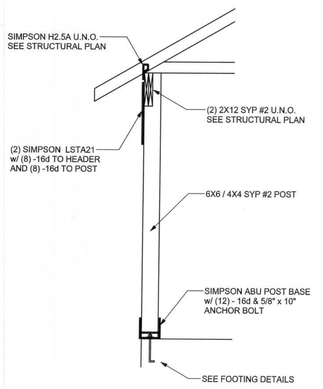
DESIGN LOADS

FLOOR	40 PSF (ALL OTHER DWELLING ROOMS)
	30 PSF (SLEEPING ROOMS)
	30 PSF (ATTICS WITH STORAGE)
	10 PSF (ATTICS WITHOUT STORAGE, <3:12)
ROOF	20 PSF (FLAT OR <4:12)
	16 PSF (4:12 TO <12:12)
	12 PSF (12:12 AND GREATER)
STAIRS	40 PSF (ONE & TWO FAMILY DWELLINGS)
SOIL BEARING CAPACITY	1000PSF
NOT IN FLOOD ZONE (BUILDER TO VERIFY)	

MASONRY NOTES:

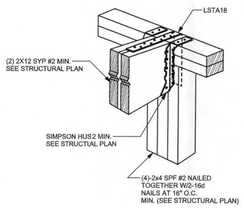
MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/ITMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DESIGN DRAWINGS. ANY EXCEPTIONS TO ACI 530.1-02 MUST BE APPROVED BY THE ENGINEER IN WRITING.

	ACI530.1-02 Section	Specific Requirements
1.4A	Compressive strength	8" block bearing walls F'm = 1500 psi
2.1	Mortar	ASTM C 270, Type N, UNO
2.2	Grout	ASTM C 476, admixtures require approval
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond and 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.5"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 60, Fy = 60 ksi, Lap splices min 48 bar dia. (30" for #5)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft2 or 304SS
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft2 or 304SS
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval.
3.3.E.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.



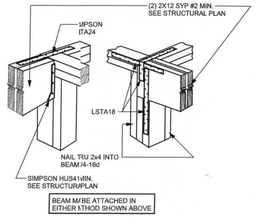
4X4 / 6X6 PORCH POST DETAIL

SCALE: 1/2" = 1'-0"



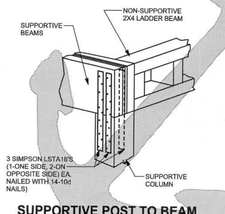
BEAM ND-WALL CONNECTION DETAIL

SCALE: N.T.



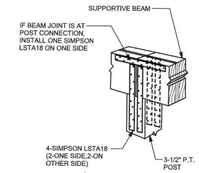
BEAM CORNR CONNECTION. DETAIL

SCALE: N.T.S.



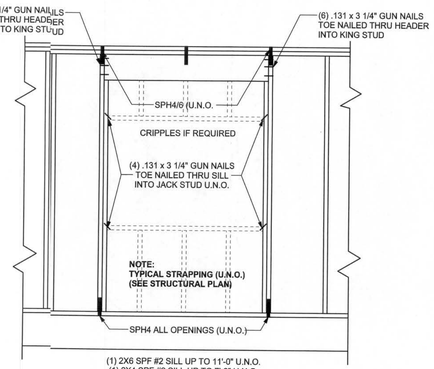
SUPPORTIVE POST TO BEAM DETAIL FOR SINGLE BEAM

SCALE: N.T.S.



SUPPORTIVE CENTER POST TO BEAM DETAIL

SCALE: N.T.S.



TYPICAL HEADER STRAPING DETAIL

SCALE: 1/2" = 1'-0"

REVISIONS	

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

WINLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS:
Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY
P.E. 53915
06/JUL/07
SEAL

Reuven & Dawn
Refaelov Residence

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PRINTED DATE: July 06, 2007

DRAWN BY: | CHECKED BY:

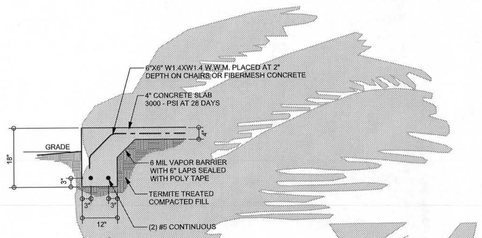
FINALS DATE: 06 / Jul / 07

JOB NUMBER: 706275

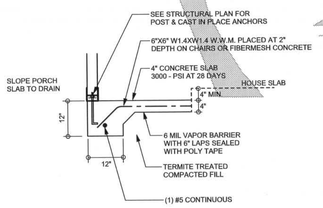
DRAWING NUMBER
S-1
OF 3 SHEETS

REVISIONS	

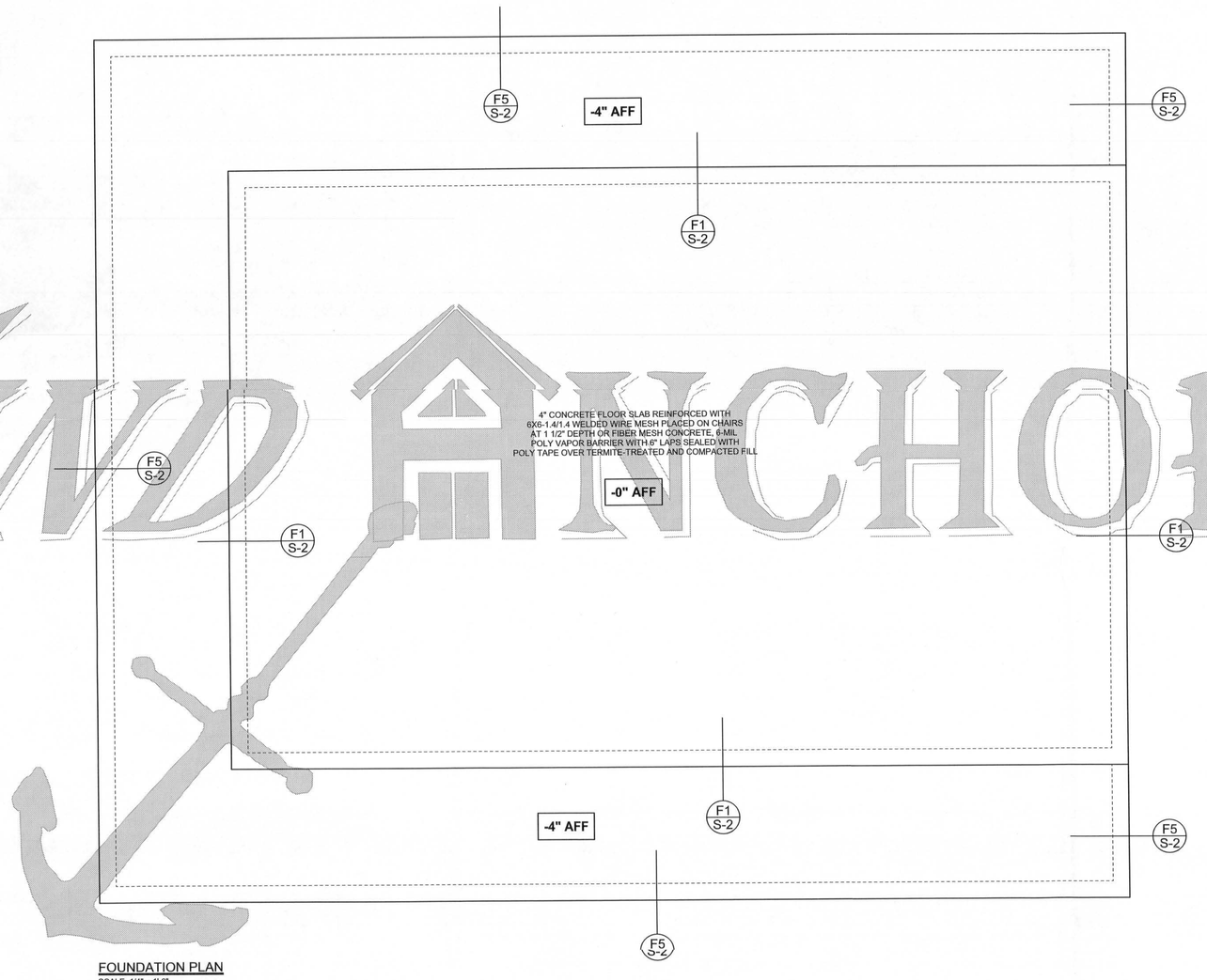
SOFTPLAN
ARCHITECTURAL DESIGN SOFTWARE



F1 S-2 MONOLITHIC FOOTING
SCALE: 1/2" = 1'-0"



F5 S-2 PORCH FOOTING
SCALE: 1/2" = 1'-0"



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"
DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS:
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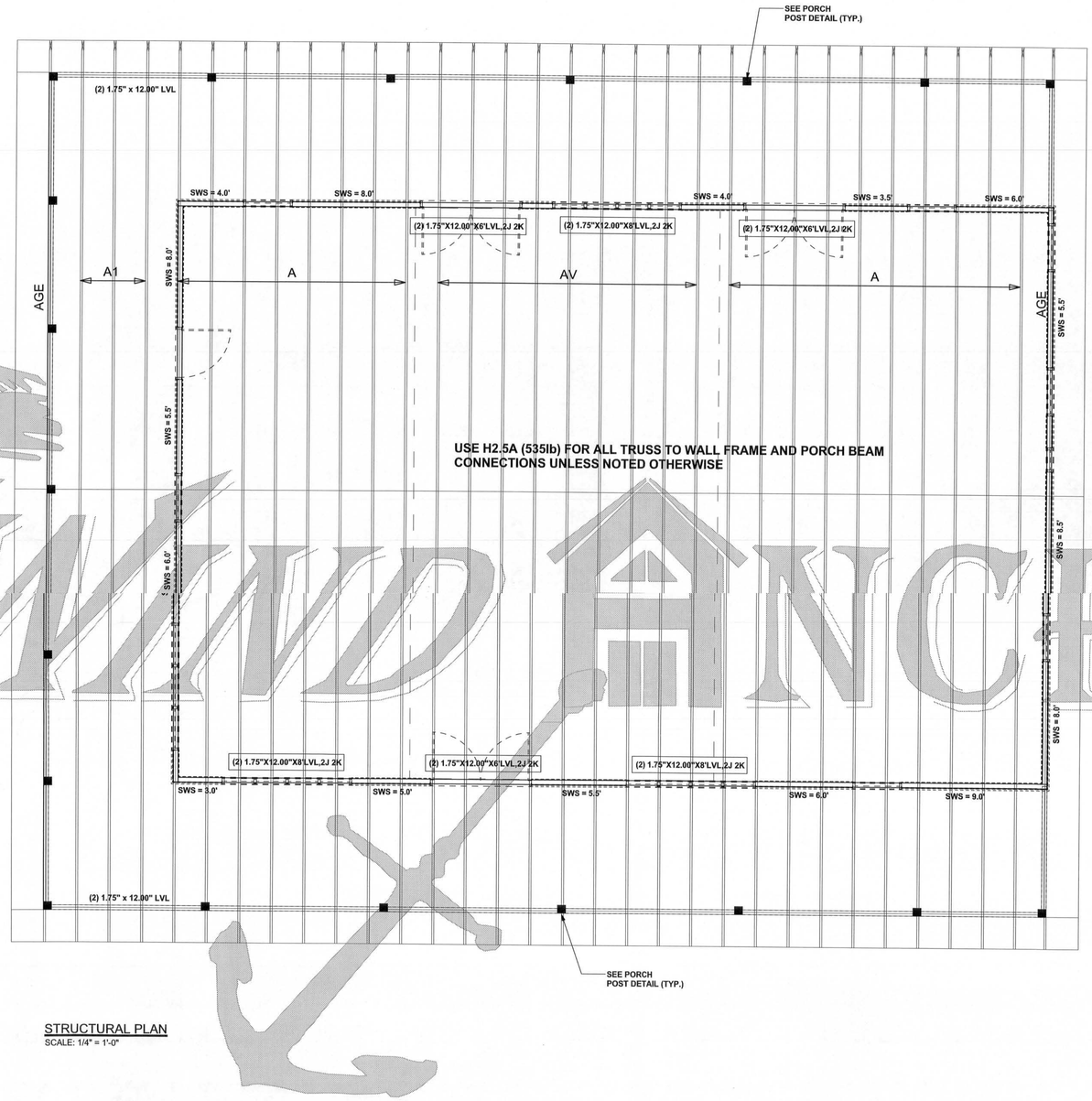
06 / Jul / 07

JOB NUMBER:
706275

DRAWING NUMBER
S-2
OF 3 SHEETS



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

STRUCTURAL PLAN NOTES

SN-1 ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2X12 SYP #2 (U.N.O.)

SN-2 ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD EACH SIDE (U.N.O.)

SN-3 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

SN-4 PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BCSI1-03, BCSI-B1, BCSI-B2, & BCSI-B3. BCSI-B1, BCSI-B2, & BCSI-B3 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED TRUSS PACKAGE

WALL LEGEND

SWS = 0.0'	1ST FLOOR EXTERIOR WALL
SWS = 0.0'	2ND FLOOR EXTERIOR WALL
IBW	1ST FLOOR INTERIOR BEARING WALL
IBW	2ND FLOOR INTERIOR BEARING WALL

HEADER LEGEND

(2) 2X12X0',1J 1K
- HEADER/BEAM CALL-OUT (U.N.O.)
- NUMBER OF KING STUDS (FULL LENGTH)
- NUMBER OF JACK STUDS (UNDER HEADER)
- SPAN OF HEADER
- SIZE OF HEADER MATERIAL
- NUMBER OF PLIES IN HEADER

TOTAL SHEAR WALL SEGMENTS
SWS = 0.0' INDICATES SHEAR WALL SEGMENTS

	REQUIRED	ACTUAL
TRANSVERSE	36.8'	41.5'
LONGITUDINAL	31.2'	54.0'

CONNECTIONS, WALL, & HEADER DESIGN IS BASED ON REACTIONS & UPLIFTS FROM TRUSS ENGINEERING FURNISHED BY BUILDER. ANDERSON TRUSS JOB #7-193

REVISIONS

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, POB 868, Lake City, FL 32056, 386-754-5419

DIMENSIONS:
Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOSWAY
P.E. 53915
06/06/07
SEAL

Reuven & Dawn
Refaelov Residence

ADDRESS:
Lot 47 Spring Run S/D
Columbia County, Florida

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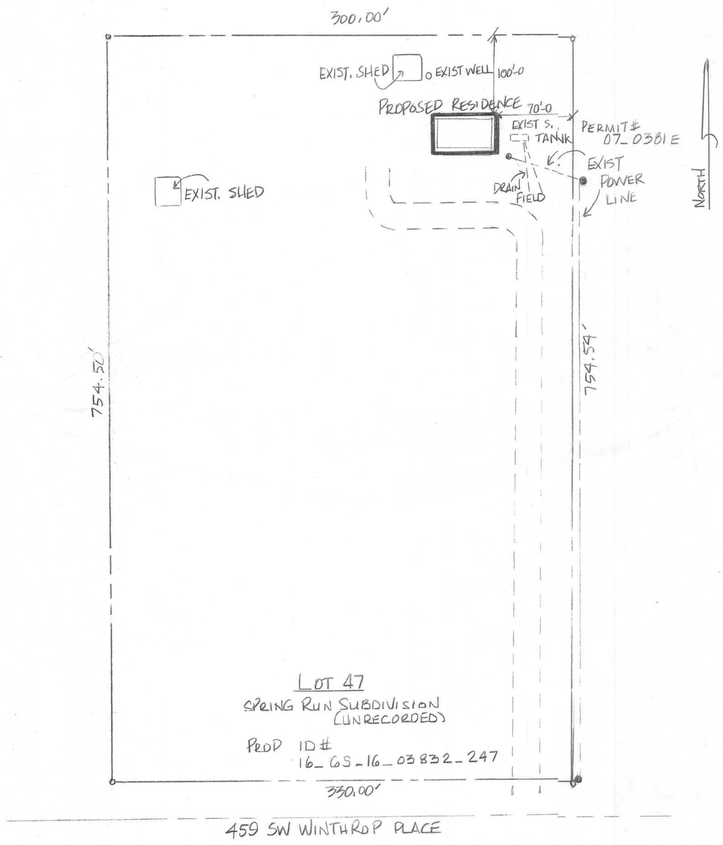
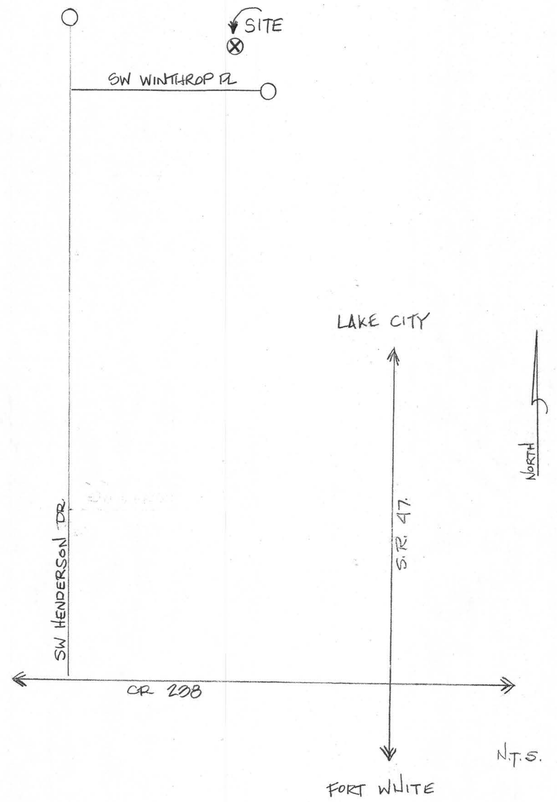
Phone: (386) 754 - 5419
Fax: (386) 269 - 4871

PRINTED DATE: July 06, 2007
DRAWN BY:
CHECKED BY:
FINALS DATE: 06 / Jul / 07
JOB NUMBER: 706275
DRAWING NUMBER
S-3
OF 3 SHEETS





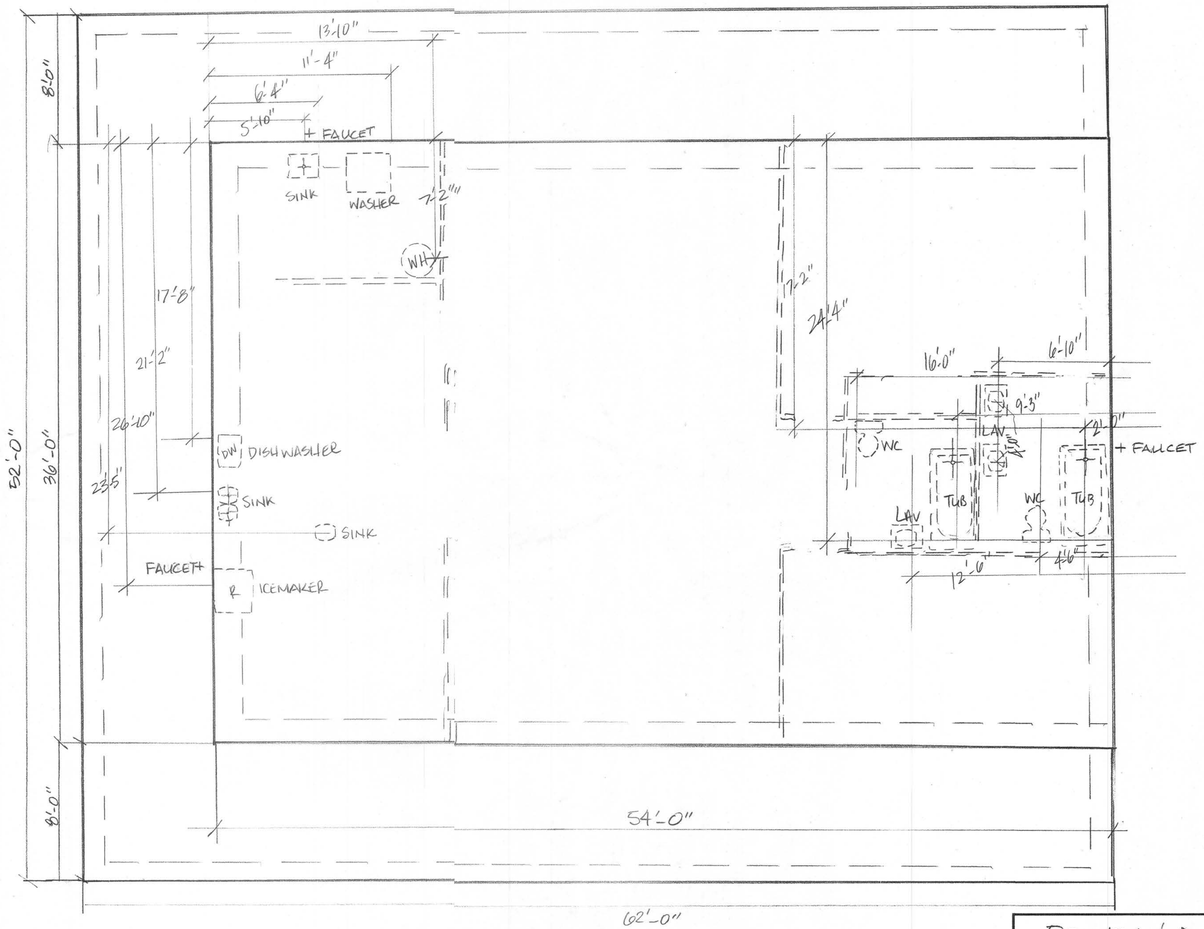
386-497-2737
PO BOX 414
FORT WHITE FLORIDA 32038

REUVEN & DAWN REFAELOV

SCALE:	APPROVED BY:	DRAWN BY DAWN
DATE: MAY 2007		REVISED

SITE PLAN

DRAWING NUMBER 1 OF 8



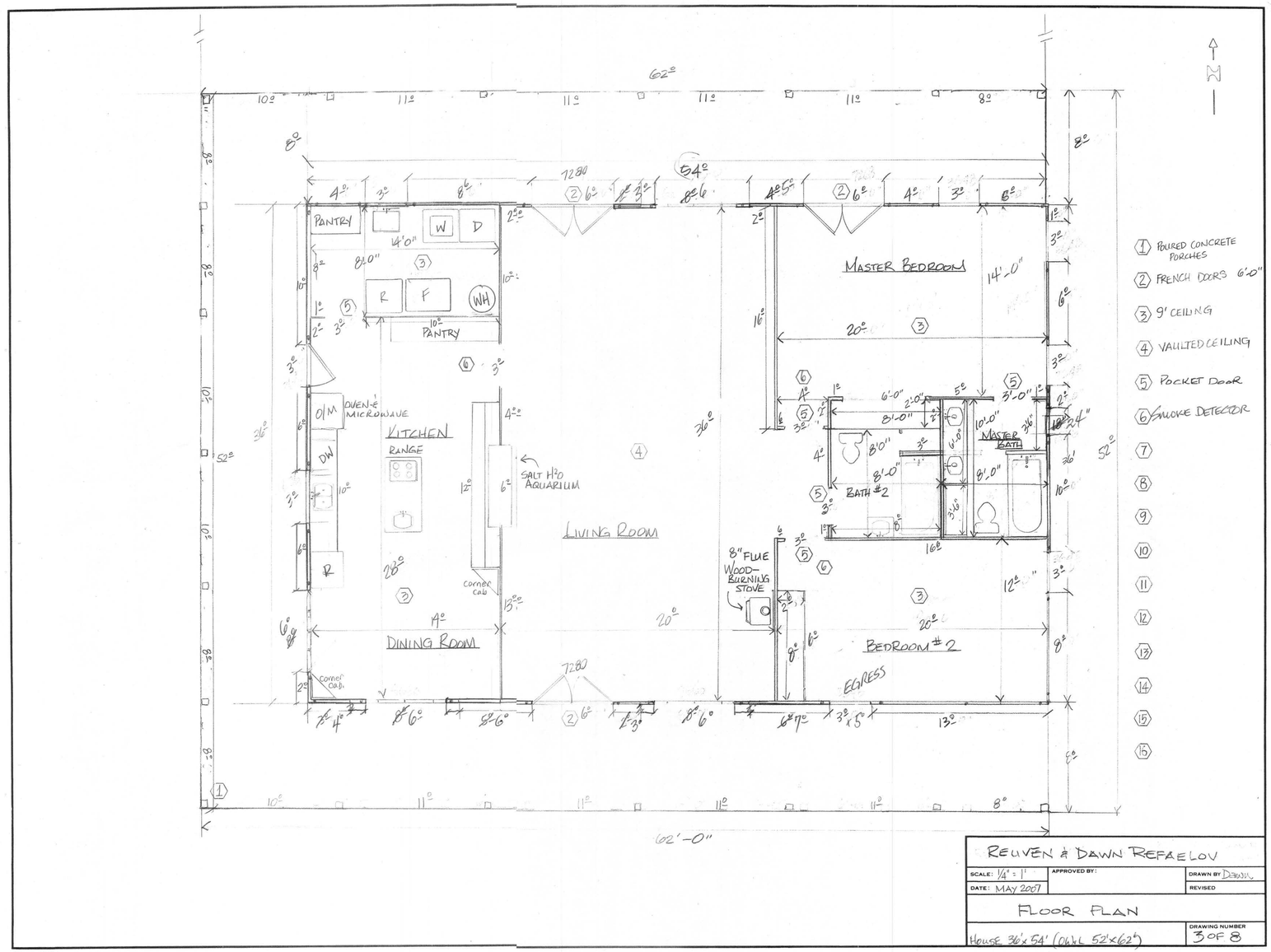
TYPICAL: 4" THICK CONCRETE SLAB WITH FIBERS ADDED W/ 6x6 10/10 WWM. OVER .006 MIL VAPOR BARRIER ON CLEAN COMPACTED TREATED SOIL.

REUVEN & DAWN REFAELOV

SCALE: 1/4" = 1'-0"	APPROVED BY:	DRAWN BY: Dawn
DATE: MAY 2007		REVISED

FOUNDATION PLAN

DRAWING NUMBER 2 OF 8



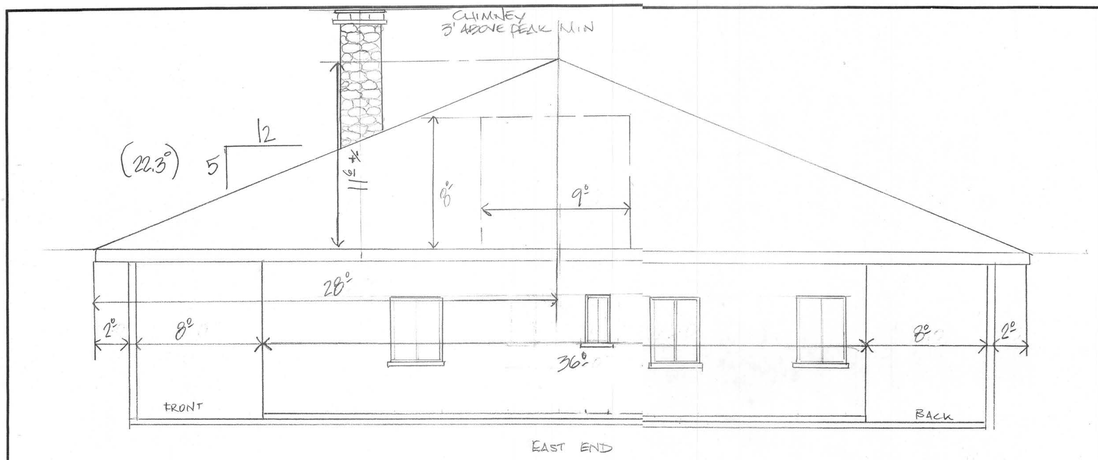
REUVEN & DAWN REFAELOV

SCALE: 1/4" = 1'	APPROVED BY:	DRAWN BY: DENISH
DATE: MAY 2007		REVISED

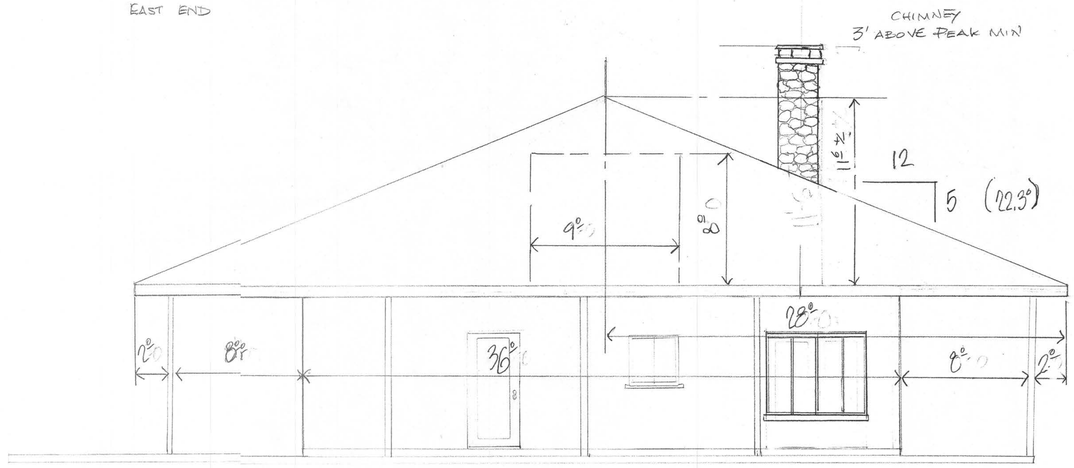
FLOOR PLAN

HOUSE 36'x54' (OVALL 52'x62')

DRAWING NUMBER 3 OF 8



EAST END



WEST END

REUVEN & DAWN REFAELOV

SCALE: 1/4" = 1'	APPROVED BY:	DRAWN BY: Dawn
DATE: May 2007		REVISED

SIDE ELEVATIONS

DRAWING NUMBER 4 OF 8

SOUTH

RELIVEN & DAWN REFAELON	
SCALE: 1/4" = 1'	APPROVED BY:
DRAWN BY: Dawn	
DATE: MAY 2007	REVISED
FRONT ELEVATION	
	DRAWING NUMBER 5 of 8

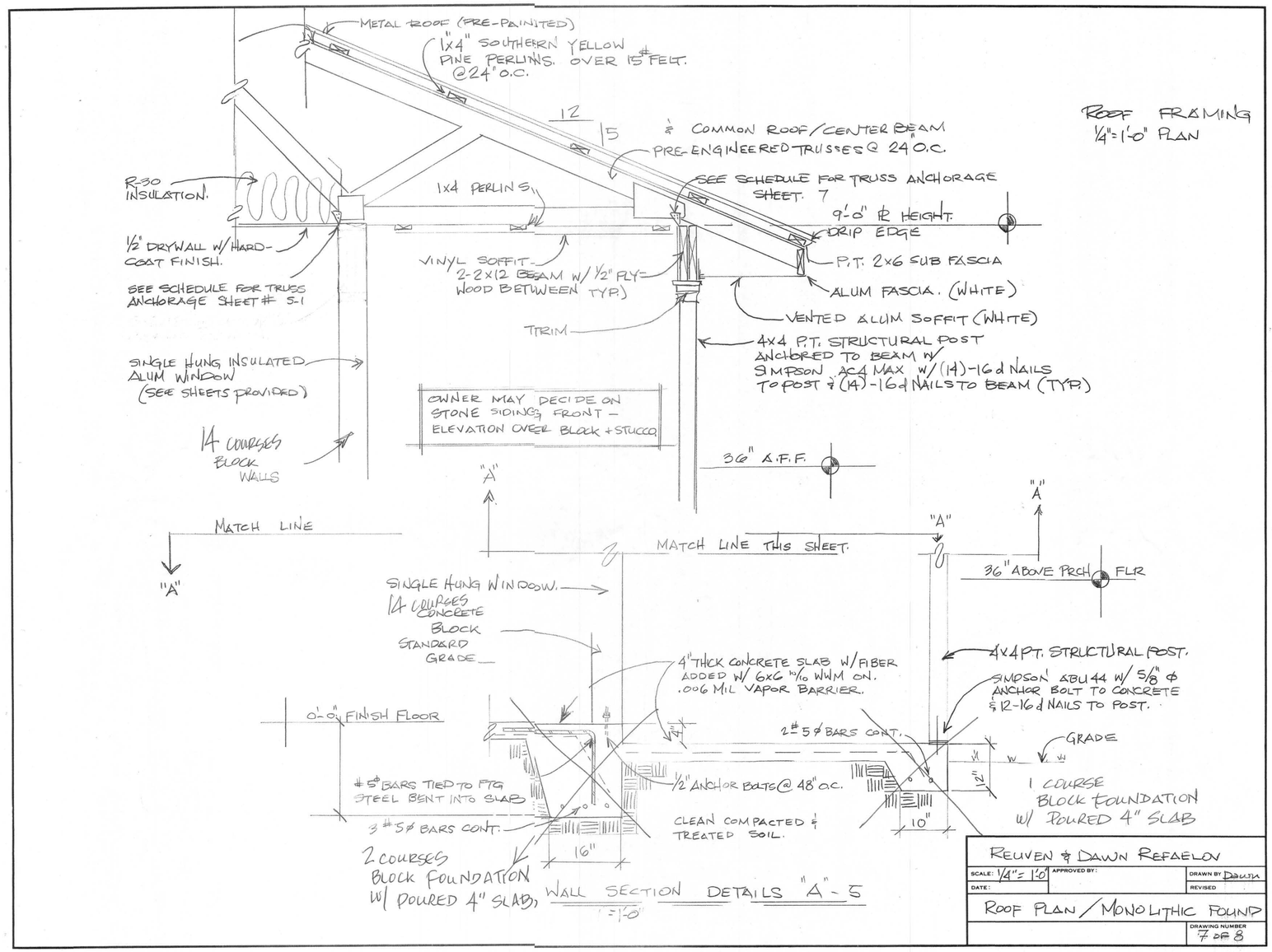
NORTH

REUVEN & DAWN REFAELOV

SCALE: 1/4" = 1'	APPROVED BY:	DRAWN BY: DAWN
DATE: MAY 2007		REVISED

REAR ELEVATION

DRAWING NUMBER 6 OF 8



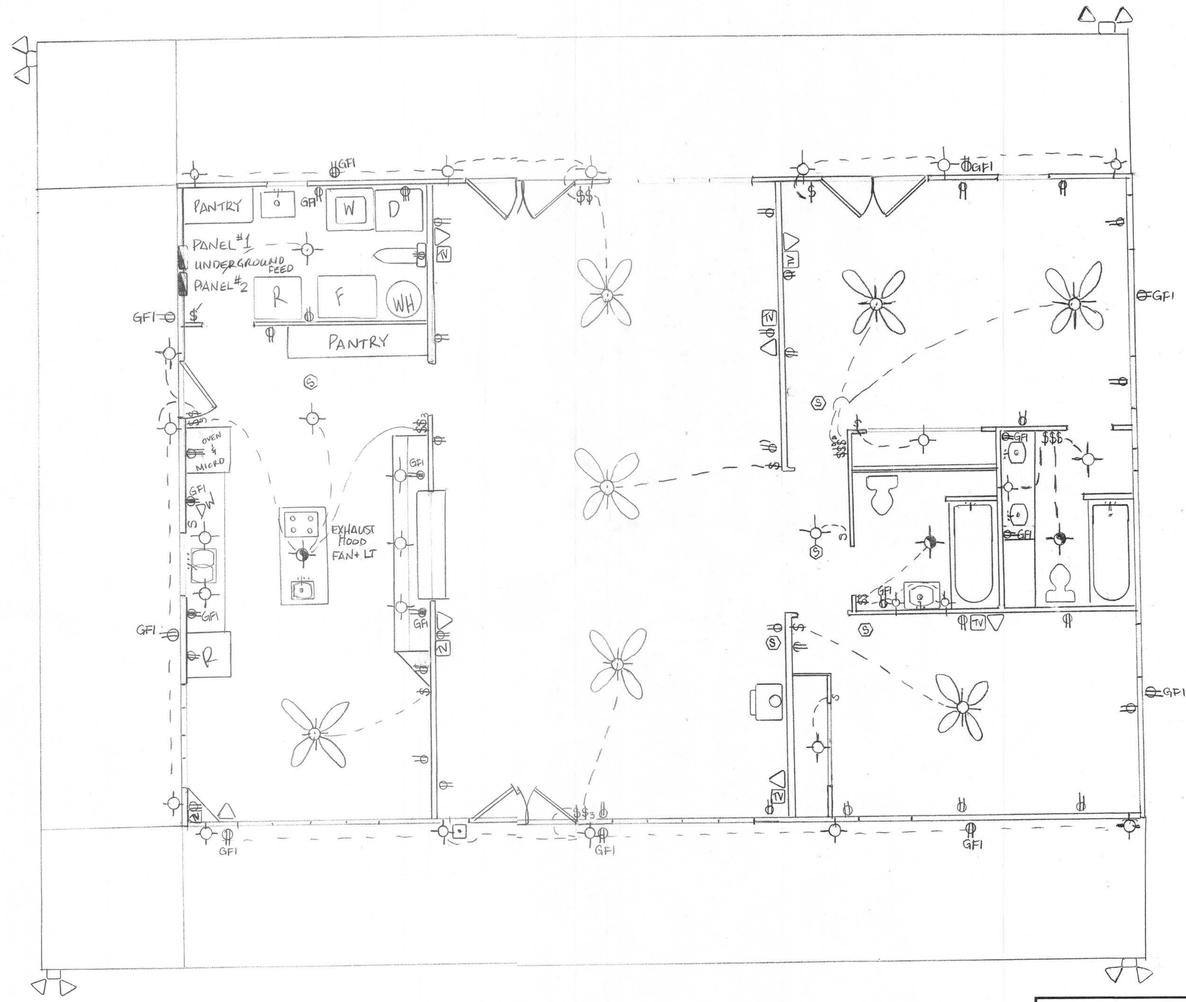
ROOF FRAMING
1/4"=1'-0" PLAN

REUVEN & DAWN REFAELOV

SCALE: 1/4"= 1'0"	APPROVED BY:	DRAWN BY DAWN
DATE:		REVISED

ROOF PLAN / MONOLITHIC FOUND

DRAWING NUMBER 7 OF 8



REUVEN & DAWN REFAELOV

SCALE: 1/4"-1'-0"	APPROVED BY:	DRAWN BY Dawn
DATE: MAY 2007		REVISED

ELECTRICAL PLAN

DRAWING NUMBER 8 OF 8