

App 1365-04

CONNLEY

MODULAR FOUNDATION

APPLICABLE CODES
2010 FLORIDA RESIDENTIAL BUILDING CODE

OCCUPANCY CLASS
RESIDENTIAL (R)

CONSTRUCTION DOCUMENTS

1 THE CUSTOMER IS RESPONSIBLE FOR DELIVERING THE REQUIRED SETS OF CONSTRUCTION DOCUMENTS TO THE PERMIT ISSUING AUTHORITIES FOR THE ISSUANCE OF CONSTRUCTION PERMITS. THE CONTRACTOR SHALL REVIEW THE CONSTRUCTION DOCUMENTS AND VERIFY ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE REPORTED TO YOUR SALES REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK OR FABRICATION OF ANY MATERIALS.

DO NOT SCALE OFF THESE PLANS

1 SIMPLE DIMENSIONS ARE SHOWN ON THE PLANS TO LOCATE ALL ITEMS. SIMPLE ARITHMETIC MAY BE USED TO DETERMINE THE LOCATIONS OF THOSE ITEMS NOT DIMENSIONED.

BUILDING CRITERIA

CONSTRUCTION TYPE VB (TABLE 503) UNPROTECTED - NON SPRINKLED
ALLOWABLE AREA: .800 S.F.
ACTUAL: .803 S.F.
ALLOWABLE STORIES: 2
ACTUAL: 1

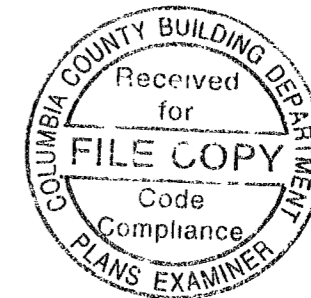
WIND DESIGN INFORMATION

WIND SPEED: 120 MPH
CATEGORY: II
EXPOSURE: B
INTERNAL PRESSURE: +/- 0.18

CLADDING COMPONENTS

ZONE 1 10 S.F. 23.7/-25.9 PSF
ZONE 2 10 S.F. 23.7/-30.3 PSF
ZONE 3 10 S.F. 23.7/-30.3 PSF
ZONE 4 10 S.F. 25.9/-28.1 PSF
ZONE 5 10 S.F. 25.9/-34.7 PSF

LEGEND	
SYMBOL	DESCRIPTION
	ELEVATION MARK
	SECTION MARK
	DETAIL CALLOUT
	ELEVATION INDICATOR
	DOOR TAG
	WINDOW TAG
	ROOM TAG
	REVISION CLOUD W/ TAG



DRAWING INDEX - BUILDING PACKAGE			
SHEET #	SHEET TITLE	REV #	REV DATE
T-1.0	TITLE SHEET	0	04-28-2013
S-1.0	GENERAL NOTES	0	04-28-2013
S-2.0	FOUNDATION PLAN	0	04-28-2013
S-2.1	ALTERNATE FOUNDATION PLAN	0	04-28-2013

Handwritten signature and date: GJG 4/13/13

REV #	DATE	REVISION NOTES
0	04-28-13	ISSUED FOR CONSTRUCTION

P.O. BOX 187
130 W HOWARD STREET
LIVE OAK, FL 32064
PHONE: (386) 362-3578
FAX: (386) 362-6133
GARY J. GILL PE 51942
STRUCTURAL ENGINEERS AUTH. # 9461

CONNLEY
MODULAR FOUNDATION
COL, UMBIA COUNTY, FL

TITLE SHEET

PROJECT NUMBER: PF13-017
DRAWN BY: F VULETICH
CHECKED BY: G J G

T-1.0

SHEET 1 OF 4

APPLICABLE CODES
2010 FLORIDA BUILDING CODE

CONSTRUCTION DOCUMENTS

THE CUSTOMER IS RESPONSIBLE FOR DELIVERING THE REQUIRED SETS OF CONSTRUCTION DOCUMENTS TO THE PERMIT ISSUING AUTHORITIES FOR THE ISSUANCE OF CONSTRUCTION PERMITS. THE CONTRACTOR SHALL REVIEW THE CONSTRUCTION DOCUMENTS AND VERIFY ALL DIMENSIONS. ANY DISCREPANCIES SHALL BE REPORTED TO YOUR SALES REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF ANY WORK OR FABRICATION OF ANY MATERIALS.

DO NOT SCALE OFF THESE PLANS

AMPLE DIMENSIONS ARE SHOWN ON THE PLANS TO LOCATE ALL ITEMS. SIMPLE ARITHMETIC MAY BE USED TO DETERMINE THE LOCATIONS OF THOSE ITEMS NOT DIMENSIONED.

WIND DESIGN INFORMATION

WIND SPEED: 120 MPH
CATEGORY: I
EXPOSURE: B
INTERNAL PRESSURE: 0.18+/-

CLADDING COMPONENTS

ZONE 1 10 S.F. .23.7/-25.9 PSF
ZONE 2 10 S.F. .23.7/-30.3 PSF
ZONE 3 10 S.F. .23.7/-30.3 PSF
ZONE 4 10 S.F. .25.9/-29.1 PSF
ZONE 5 10 S.F. .25.9/-34.7 PSF

DESIGN CRITERIA

DESIGN PER 2010 FLORIDA BUILDING CODE

CONCRETE

- ALL CONCRETE DESIGNED PER CURRENT EDITION OF ACI 318
- ALL CONCRETE SHALL BE CONTROLLED CONCRETE.
- CONCRETE SHALL HAVE THE FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS
 - A. FOUNDATION WALLS PIERS AND FOOTINGS. 3000 PSI
 - B. SLABS ON GRADE. 3000 PSI
 - C. ALL OTHER CONCRETE. 3000 PSI
- ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A NOMINAL AIR DRY DENSITY OF 145 PCF
- PROVIDE CONSTRUCTION JOINTS WHERE SHOWN OMIT NONE AND ADD NON WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER. SUBMIT DRAWINGS SHOWING ALL PROPOSED CONSTRUCTION JOINT LOCATIONS FOR APPROVAL PRIOR TO PREPERATION OF AFFECTED REINFORCEMENT SHOP DRAWINGS.
- MINIMUM ELAPSED TIME BETWEEN ADJACENT CONCRETE PLACEMENTS SHALL BE 48 HRS
- CONCRETE MIX DESIGN FOR EACH TYPE AND STRENGTH OF CONCRETE SPECIFIED SHALL BE SUBMITTED FOR ARCHITECT /ENGINEER REVIEW 30 DAYS PRIOR TO PLACEMENT OF CONCRETE
- ALL REINFORCING STEEL ASTM A615 GRADE 60 ALL WELDED WIRE FABRIC ASTM A185

TERMITE PROTECTION NOTES:

- SOIL CHEMICAL BARRIER METHOD:
A PERMANENT SIGN THAT IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR REINSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL. FBC 1042.6
- CONDENSATE AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM BUILDING SIDE WALLS FBC 1503.4.4
- IRRIGATION/SPRINKLERS SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1'-0" FROM BUILDING SIDE WALLS FBC 1503.4. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION BETWEEN WALL COVERINGS AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6" EXCEPTION PAINT AND DECORATIVE CEMENTIOUS FINISH LESS THAN 1/8" THICK ADHERED DIRECTLY TO FOUNDATION WALL. FBC 1816.1.1
- INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE FBC 1816.1.1
- SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED. FBC 1816.1.2
- BOXED AREAS IN CONCRETE FLOOR FOR SUBSEQUENT INSTALLATION OF TRAPS ETC SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS PERMANENT FORMS MUST BE OF A SIZE AND DEPTH THAT WILL ILLMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT FBC 1816.1.3
- MINIMUM 6 MIL VAPOR RETATRDER MUST BE INSTALLED TO PROTECT AGAINST RAINFALL DILUTION. IF RAINFALL OCCURS BEFORE VAPOR RETARDER PLACEMENT RETREATMENT IS REQUIRED FBC 1816.1.4
- CONORTE OVERPOUR AND MORTAR ALONG THE FOUNDATION PERIMETER MUST BE REMOVED BEFORE EXTERIOR SOIL TREATMENT FBC. 1816.1.5
- SOIL TREATMENT MUST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1'-0" OF THE STRUCTURE SIDEWALLS. FBC 1816.1.6
- AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETE INCLUDING LANDSCAPING AND IRRIGATION ANY SOIL DISTURBED AFTER THE VERTICAL BARRIER IS APPLIED SHALL BE RETREATED FBC 1916.1.6
- ALL BUILDINGS ARE REQUIRED TO HAVE PRE-CONSTRUCTION TREATMENT FBC 1816.1.6
- A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL COMPANY BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED THE CERTIFICATE OF COMPLIANCE SHALL STATE THE BUILDING HAS RECEIVED A COMPLTE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES FBC 1816.1.7
- AFTER ALL WORK IS COMPLETED LOOSE WOOD AND FILL MUST BE REMOVED FROM BELOW AND WITHIN 1'-0" OF THE BUILDING THIS INCLUDES ALL GRADE STAKES TUB TRAP BOXES FORMS SHORING OR OTHER CELLULOSE CONTAINING MATERIAL. FBC 503.1.3
- NO WOOD VEGETATION STUMPS CARDBOARD TRASH ETC SHALL BE BURIED WITHIN 15'-0" OF ANY BUILDING OR PROPOSED BUILDING FBC 3203.1.4

REINFORCING

- ALL BAR REINFORCEMENT SHALL CONFORM TO ASTM 615 GRADE 60
- WELDED WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185.
- CLEARANCE OF MAIN REINFORCEMENT FROM ADJACENT SURFACES SHALL CONFORM TO THE FOLLOWING (UNLESS OTHERWISE SHOWN IN DETAIL)
 - A. UNFORMED SURFACES IN CONTACT WITH GROUND (FOOTING OR WALL BOTTOM) .3'
 - B. SLABS ON GRADE .2 1/2'
 - C. FORMED SURFACE IN CONTACT WITH GROUND OR EXPOSED TO WEATHER (WALLS PIERS) .2'
 - D. IN ALL CASES CLEARANCE NOT LESS THAN DIAMETER OF BARS. NOTE: MAXIMUM DEVIATION FROM THESE REQUIREMENTS SHALL BE + 1/4" FOR SECTIONS 10" OR LESS AND + 1/2" FOR SECTIONS OVER 10" THICK.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON DRAWINGS
- WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS AS DETERMINED BY THE ARCHITECT/ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM PERMITTED BY APPLICABLE CODES.
- ALL WORKMANSHIP AND MATERIAL SHALL CONFORM TO THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI-318)
- ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT/ENGINEER OR OWNER TESTING AGENCY BEFORE CONCRETE IS PLACED
- WHERE CONTINUOUS BARS ARE CALLED FOR THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS LAPPED AT NECESSARY SPLICES AND HOOKED AT DISCONTINUOUS ENDS
- WELDED WIRE FABRIC SHALL BE LAPPED ONE FULL MESH PANEL OR 6" MINIMUM
- ALL REINFORCING SPLICES SHALL CONFORM TO THE TABLE(S) PROVIDED IN THE GENERAL NOTES FOR STRENGTH OF CONCRETE BUT IN NO CASE LESS THAN THE REQUIREMENTS OF THE LATEST EDITION OF ACI-318
- SLABS AND WALLS SHALL NOT BE SLEEVED OR BOXED OUT OR HAVE THEIR REINFORCING INTERRUPTED EXCEPT AS SPECIFICALLY NOTED ON THE DRAWINGS PROVIDE ADDITIONAL REINFORCEMENT AROUND OPENINGS AS SHOWN IN THE DETAILS
- SUBMIT CHECKED SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION OF REINFORCING DRAWINGS SHALL SHOW REINFORCING DETAILS INCLUDING SIZE AND SPACING OF BARS AND SUPPORT DETAILS SHOP DRAWINGS SHALL INDICATE CONSTRUCTION JOINTS CURBS, DEPRESSIONS SLEEVES AND OPENINGS, ETC. WITH ALL ADDITIONAL REINFORCING REQUIRED.
- BAR SUPPORTS SHALL BE GALVANIZED OR STAINLESS STEEL. BAR SUPPORTS IN CONTACT WITH EXPOSE SURFACES SHALL BE GALVANIZED AND PLASTIC TIPPED

SLAB AND WALL REINFORCING LAP SPlice LENGTHS

LAP SPlice LENGTHS FOR REINFRING IN 4000 PSI CONCRETE ARE AS FOLLOWS.

BAR SIZE	TENSION SPlice		DEVELOPMENT LENGTH
	TOP	OTHER	
3	21	15	13
4	29	20	17
5	35	25	21
6	43	31	25
7	54	39	32
8	71	51	42

LAP SPlice LENGTHS FOR REINFORCING IN 3000 PSI CONCRETE ARE AS FOLLOWS.

BAR SIZE	TENSION SPlice		DEVELOPMENT LENGTH
	TOP	OTHER	
3	21	15	13
4	29	20	17
5	35	25	21
6	46	33	27
7	63	45	37
8	82	59	49

NOTES:

- LAPPED SPlice LENGTHS BASED ON ASTM A-615 GADE 60 REBAR
- REINFORCING BARS ARE CLASSIFIED AS TOP BARS WHEN MORE THAN 12" OF CONCRETE IS CAST BENEATH RESPECTIVE REINFORCING BAR.
- COMPRESSION SPLICES PERMISSIBLE ONLY WHERE SPECIFICALLY NOTED ON THE DRAWINGS DETAILS OR SCHEDULES.
- TENSION SPLICES SHALL BE USED IN ALL BEAMS, SLABS AND WALLS UNLESS OTHERWISE NOTED
- WHEN LAPPING LARGER BAR WITH SMALLER BAR, LAP LENGTH FOR SMALLER BAR SHALL GOVERN RESPECTIVE SPlice.
- SPlice CONTINUOUS TOP REINFORCING BARS AT CENTER OF CLEAR SPAN WITH COMPRESSION SPLICES
- SPlice CONTINUOUS BOTTOM REINFORCING BARS AT CENTER OF SUPPORTING ELEMENT WITH COMPRESSION SPLICES
- ALL SPlice LENGTHS NOTED IN INCHES

FOUNDATIONS

- ALL FINISHED EXCAVATIONS AND BEARING GRADES SHALL BE INSPECTED AND APPROVED BY THE OWNERS SOIL TESTING AGENCY BEFORE ANY CONCRETE IS PLACED.
- ALL FOUNDATION WALLS SHALL BE BRACED DURING THE OPERATION OF BACKFILLING AND COMPACTION BRACING SHALL BE LEFT IN POSITION UNTIL PERMANENT RESTRAINTS ARE EFFECTIVE. BACKFILL NO FOUNDATION WALLS UNTIL PERMANENT LATERAL STRUCTURAL SUPPORT SYSTEM IS IN PLACE AND OF ADEQUATE STRENGTH TO WITHSTAND THE APPLIED LATERAL PRESSURES
- LOCATE ALL EXISTING BELOW GRADE UTILITIES. PROVIDE UTILITIES WITH POSITIVE PROTECTION AGAINST DAMAGE DUE TO SETTLEMENT AND CONSTRUCTION OPERATIONS.
- ALL FOOTING SUBGRADES AS REQUIRED AND ALL SLAB SUBGRADES SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT BASED ON LABORATORY DESIGNATION ASTM D1557
- COMBINED AND INDIVIDUAL FOOTINGS AR DESIGNED TO BEAR ON UNIFORM SOIL CAPABLE OF SUPPORTING 2,000 PSF CONTINUOUS FOOTINGS ARE DESIGNED TO BEAR ON SOIL CAPABLE OF SUPPORTING 2,000 PSF

REV #	DATE	REVISION NOTES
0	04-28-13	ISSUED FOR CONSTRUCTION

P.O. BOX 187
130 W HOWARD STREET
LIVE OAK FL 32064
PHONE: (386) 362-3578
FAX: (386) 362-6133
GARY J. GILL PE 51942
STRUCTURAL/CIVIL ENGINEERS AUTH. # 9461

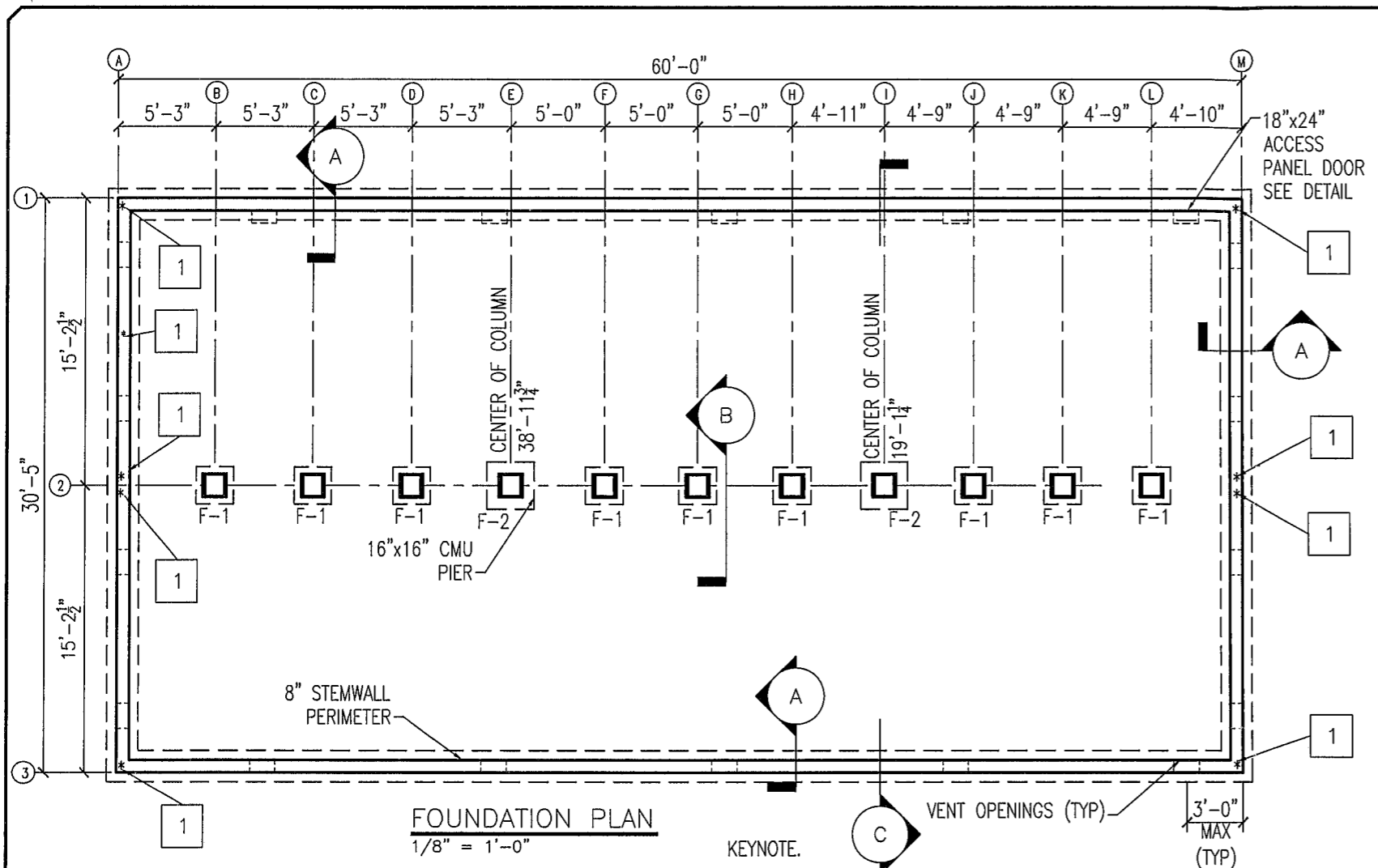
CONNLEY
MODULAR FOUNDATION
COLUMBIA COUNTY, FL

GENERAL NOTES

PROJECT NUMBER
PF13-017
DRAWN BY
F VULETICH
CHECKED BY
G J G

S-1.0

[Handwritten Signature]
4/30/13



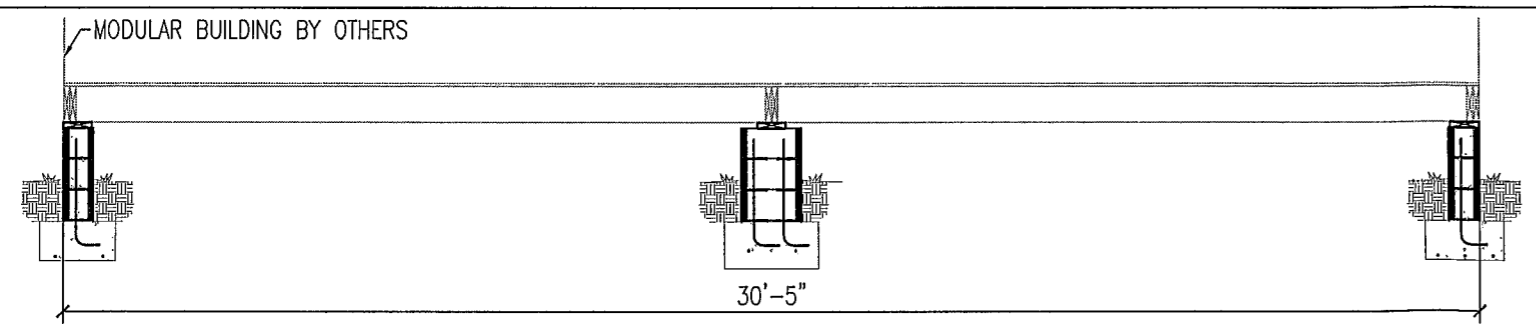
FOUNDATION PLAN
1/8" = 1'-0"

KEYNOTE.

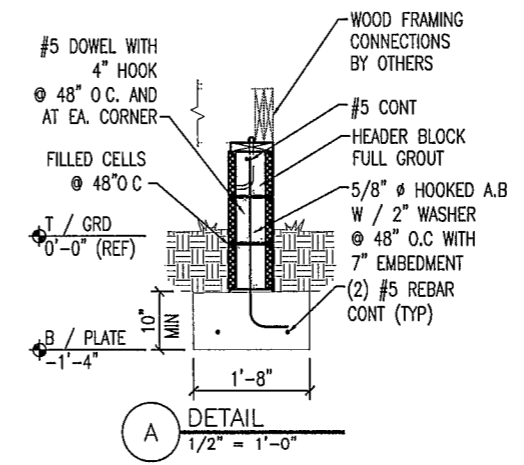
- 1 LOCATION OF SIMPSON HOLDOWN CONNECTION AS NOTED PER MANUFACTURER SHOP DRAWINGS. REFER TO DRAWING SW-102 FOR LOCATION AND SPECIFICATIONS
- 8"X16" VENT OPENINGS - 16 REQUIRED
- F-1 FOOTING SIZE - 24"X24"X12" - 7 REQUIRED
- F-2 FOOTING SIZE - 32"X32"X12" - 4 REQUIRED

***NOTES:**

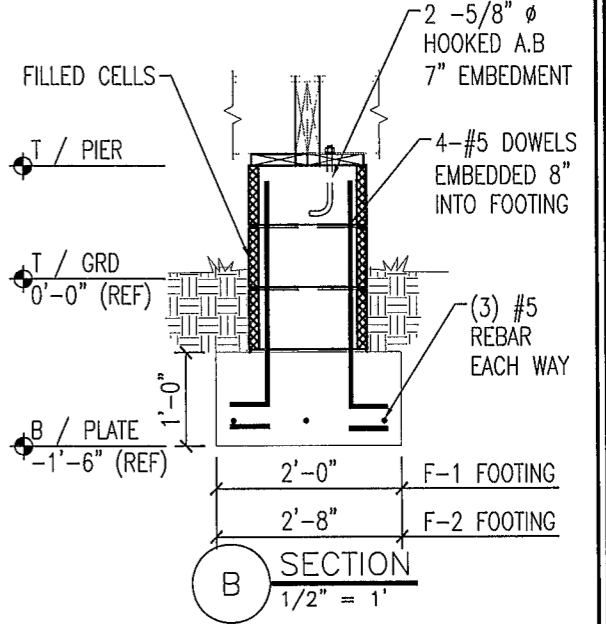
(1) CONTRACTOR SHALL VERIFY ALL FOUNDATION DIMENSIONS PRIOR TO CONSTRUCTION. IF A DIMENSION CONFLICT OCCURS BETWEEN FLOOR PLAN AND THE FOUNDATION PLAN, THE FLOOR PLAN SHALL CONTROL.



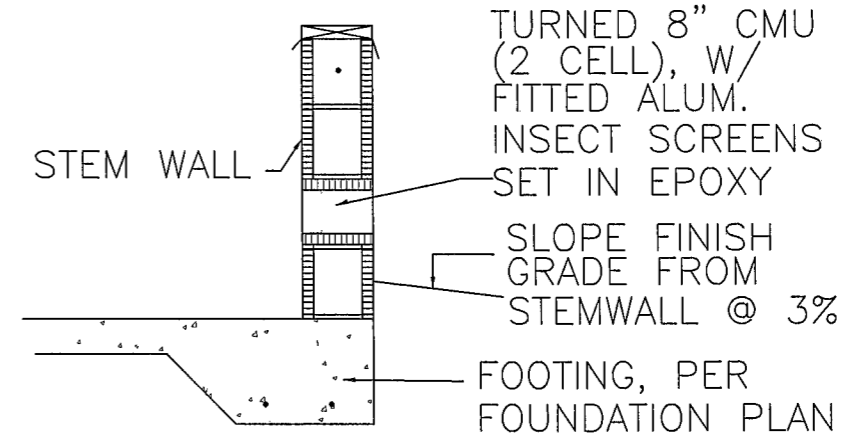
SECTION C
1/8" = 1'-0"



DETAIL A
1/2" = 1'-0"

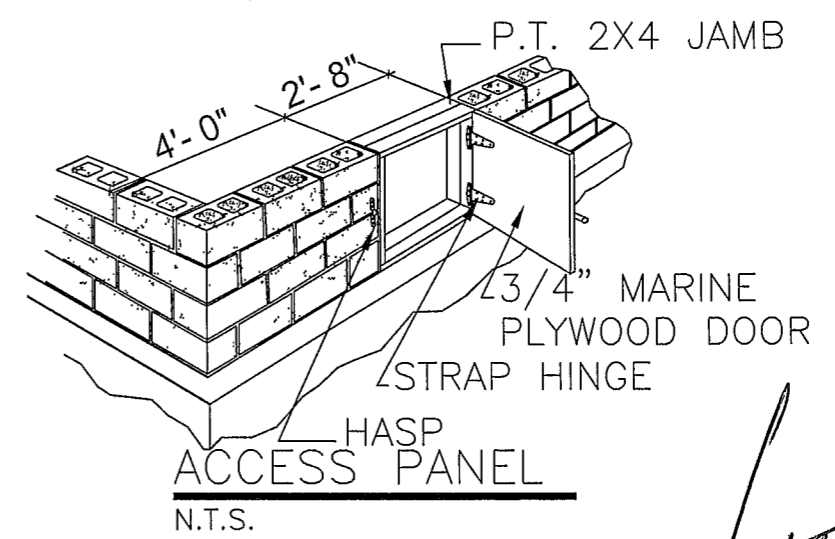


SECTION B
1/2" = 1'-0"




VENTILATION VENTS

N.T.S.

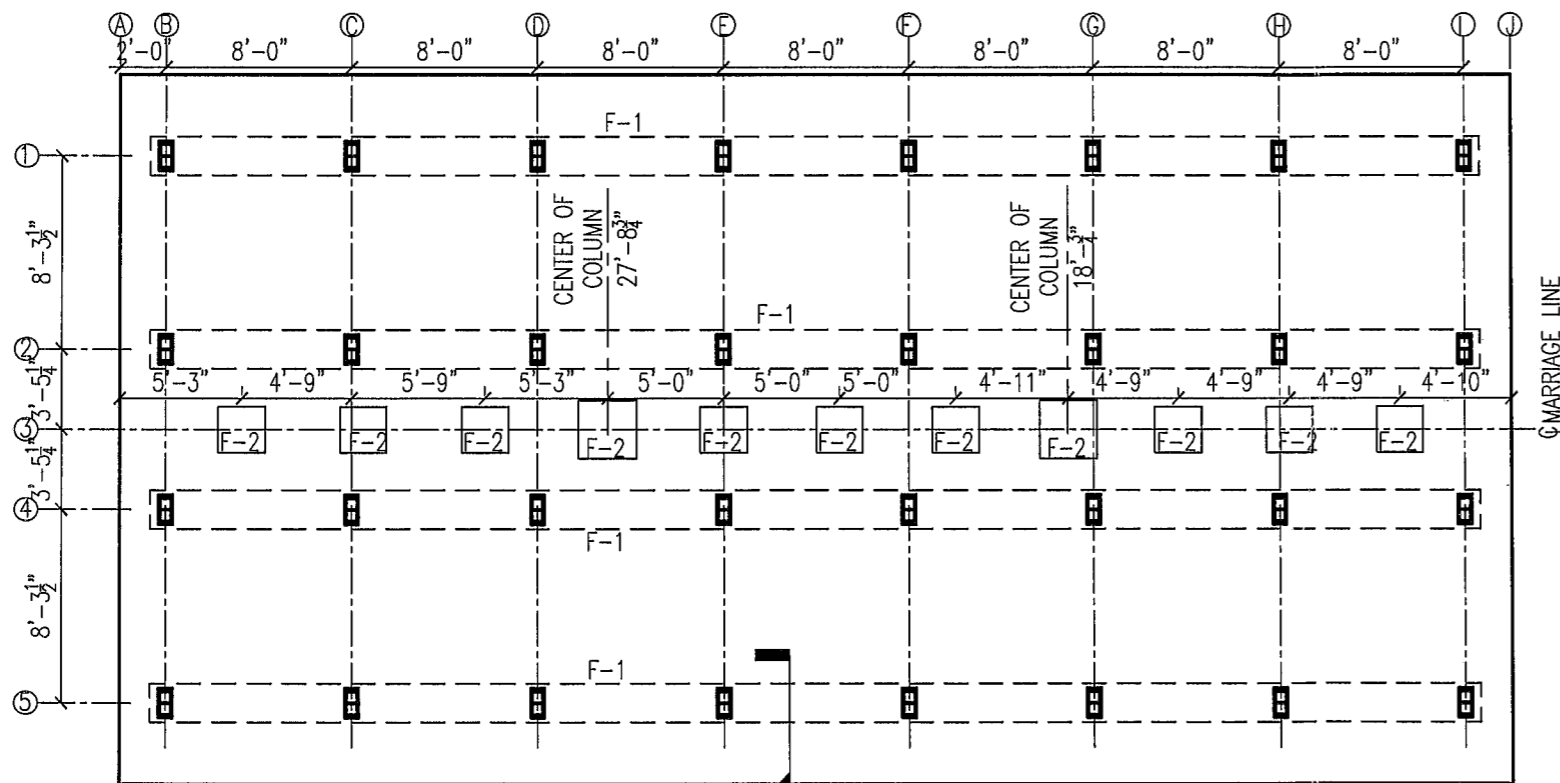


ACCESS PANEL

N.T.S.

REVISION NOTES	DATE	REV #	ISSUED FOR CONSTRUCTION
	04-28-13	0	
P.O. BOX 187 130 W HOWARD STREET LIVE OAK, FL 32064 PHONE: (386) 362-3678 FAX: (386) 362-6133 GARY J. GILL, PE 51942 STRUCTURAL ENGINEERS AUTH. # 9461			
			
CONNLEY MODULAR FOUNDATION COLUMBIA COUNTY, FL			
FOUNDATION PLAN			
PROJECT NUMBER	PF13-017		
DRAWN BY	F VULETICH		
CHECKED BY	G J G		
S-2.0			
SHEET 3 OF 4			

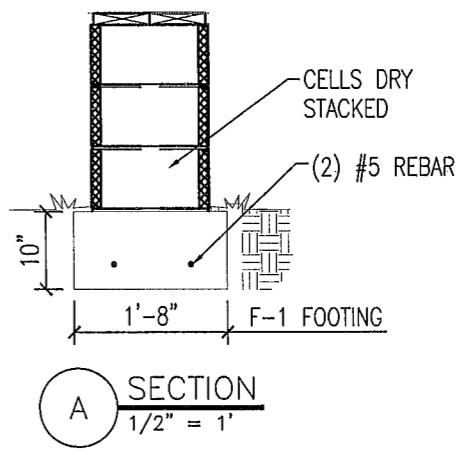
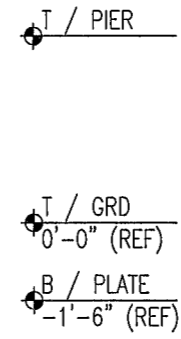
[Handwritten signature]
11/30/13



BUILDING OUTLINE

FOUNDATION PLAN
1/8" = 1'-0"

KEYNOTE:
 F-1 FOOTING SIZE - 20"x10"x CONTINUOUS
 F-2 COLUMN AND MARRIAGE WALL SUPPORTS PER MANUFACTURER - NOT PART OF FOUNDATION DESIGN



REV #	DATE	REVISION NOTES
0	04-28-13	ISSUED FOR CONSTRUCTION

P.O. BOX 187
 130 W HOWARD STREET
 LIVE OAK FL 32084
 PHONE: (386) 362-3678
 FAX: (386) 362-6133
 GARY J. GILL, P.E. 51942
 STRUCTURAL ENGINEERS AUTH. # 9461

CONNLEY
 MODULAR FOUNDATION
 COLUMBIA COUNTY, FL

ALTERNATE
 FOUNDATION PLAN

PROJECT NUMBER
 PF13-017
 DRAWN BY
 F VULETICH
 CHECKED BY
 G J G

S-2.1

SHEET 4 OF 4

Handwritten signature and date:
 4/30/13



CHAMPION HOME BUILDERS, INC.
P.O. BOX 2097
(1915 SE STATE ROAD 100)
LAKE CITY, FL 32056

C660
1,820 Sq.Ft.

CODE SUMMARY:								
STATE	RESIDENTIAL	ELECTRICAL	MECHANICAL	PLUMBING	ENERGY	FIRE PREVENTION	FUEL	ACCESSIBILITY
FLORIDA	2010 FLORIDA RESIDENTIAL BUILDING CODE	2008 NATIONAL ELECTRICAL CODE	2010 FLORIDA RESIDENTIAL BUILDING CODE	2010 FLORIDA RESIDENTIAL BUILDING CODE	2010 FLORIDA RESIDENTIAL BUILDING CODE ENERGY CONSERVATION	2010 FLORIDA FIRE PREVENTION	2010 FLORIDA RESIDENTIAL BUILDING CODE	2012 FLORIDA ACCESSIBILITY (INCORPORATES 2010 ADA)

SHEET INDEX

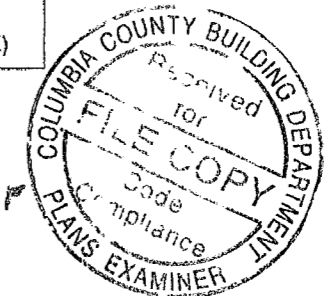
- CP-101 COVER SHEET
- GE-101 GENERAL NOTES
- GE-102 ELECTRIC PANEL
- EV-101 ELEVATIONS
- AP-101 FLOOR PLAN
- ME-101 DUCT PLAN
- PP-101 DWV PLAN
- WP-101 WATER LINE PLAN
- DE-101 PORTICO DETAILS
- SE-101 TYPICAL CROSS SECTION
- F-102 FOUNDATION PLAN

SHEET INDEX CONT.

- SW-101 ROOF DIAPHRAGM-SHEARWALL LAYOUT
- SW-102 SHEARWALL DETAILS
- SW-103 CONNECTION DETAIL
- SW-104 HIGH WIND PORCH COLUMN DESIGN

1-STORY TRUSS PACKAGE
UNIVERSAL FOREST PRODUCTS

15'-2" WIDE MODULES
HC373402 (6/12 VAULT)
HM378902 (6/12 FLAT)
HMB38601 (6/12 FLAT - NO EAVE)



Date 4-18-13 Plan No. 2425-0329F
Approved By SCOTT S. FRANCIS

Scott S. Francis

Modular Building Plans Examiner
Florida License No. SMP-42

2010 FLORIDA RESIDENTIAL BUILDING CODE

FLORIDA STRUCTURAL LOAD LIMITATIONS:
EXPOSURE C.

MEAN ROOF HEIGHT: 20 FT - 30FT Elevated	
FLOOR LIVE LOAD: 40 PSF	
ROOF LIVE LOAD: 20 PSF	
WIND LOAD: 1. 130 MPH V _w 101 MPH V _{ult}	WIND SPEED
2. I _w = 1.0	WIND IMPORTANCE FACTOR
3. C	WIND EXPOSURE CATEGORY
4. G _{Cpl} = 0.16	INTERNAL PRESSURE COEFFICIENT
5. D W.P. FOR CIC	PSF
Pr = ROOF COMPONENT & CLADDING LOAD (EA10PSF)	
ZONE 1 = -21.5 PSF	-23.4 PSF-Elevated
ZONE 2 = -37.5 PSF	-40.7 PSF-Elevated
ZONE 3 = -65.4 PSF	60.1 PSF-Elevated
ROOF OVERHANG (EA10)	
ZONE 2 = -43.9 PSF	-47.5 PSF-Elevated
ZONE 3 = -72.2 PSF	-78.4 PSF-Elevated
Pw = WALL COMPONENT & CLADDING LOAD (EA10)	
WALL (WINDOWS, DOORS)	
ZONE 4 = -26.5 PSF	-27.2 PSF Elevated
ZONE 5 = -31.5 PSF	-34.2 PSF-Elevated
Pw = WALL COMPONENT & CLADDING LOAD (EA40)	
WALL (SLIDING GLASS DOORS)	
ZONE 4 = -23.5 PSF	-25.5 PSF-Elevated
ZONE 5 = -27.5 PSF	-29.9 PSF-Elevated

6. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE OF A HILL OR ESCARPMENT EXCEEDING 16 FEET IN HEIGHT

7. FLOOD LOAD
THIS BUILDING SHALL NOT BE INSTALLED BELOW THE BASE FLOOD ELEVATION IN ANY FLOOD HAZARD AREA OR ZONE BUT THE HOME MAY BE LOCATED IN A FLOOD HAZARD AREA OF ZONE, WHEN SET ON A FOUNDATION DESIGNED FOR USE IN THAT AREA OR ZONE. THE FOUNDATION SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE (BY OTHERS, NOT CHAMPION HOME BUILDERS). THIS FOUNDATION SHALL BE DESIGNED AND CONSTRUCTED TO RESIST ALL LOADS THAT MAY BE EXERTED ON THE STRUCTURE. NO LOADS APPLIED TO THE FOUNDATION SHALL BE TRANSFERRED TO THE HOME.

EXPOSURE B.

THIS BUILDING MEETS ALL REQUIREMENTS FOR 140MPH V_w

NOTES:

ALL MATERIALS COVERED BY THE FLORIDA BUILDING COMMISSION 61 G20-3 RULES SHALL HAVE CURRENT FLORIDA PRODUCT APPROVAL.
DATA PLATE AND STATE INSIGNIA'S ARE LOCATED IN or ON THE PANEL BOX OF THE HOME.
SEALED PRINTS ARE ON FILE IN THE OFFICE OF HWC, INC.
PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S., TO BE HANDLED BY LOCAL FIRE SAFETY INSPECTOR.

THIS BUILDING IS ON A PERMANENT FOUNDATION AND IS NOT INTENDED TO BE MOVED ONCE SO INSTALLED
SEE THE STATE APPROVED CONSTRUCTION PACKAGE FOR ROOF CONSTRUCTION DETAILS AND TYPICAL CONSTRUCTION DETAILS.

ADDITIONAL HINGED ROOF DETAILS MUST BE INCLUDED WHEN HOME IS BUILT WITH HINGED ROOF.
ACTUAL CONSTRUCTION METHOD AND PRODUCTS MAY VARY FROM DETAILS CONTAINED IN THIS DOCUMENT PROVIDED THE METHOD OF CONSTRUCTION AND PRODUCTS ARE ADDRESSED IN THE DBPR QUALITY ASSURANCE AND BUILDING SYSTEMS MANUAL LOCATED AT THE MANUFACTURING FACILITY.

SITE INSTALLED ITEMS:

NOTE. THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING
3. PORTABLE FIRE EXTINGUISHER(S).
4. BUILDING DRAINS CLEANOUTS AND HOOK-UP TO PLUMBING SYSTEM
5. ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
6. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS (MULTI-UNITS ONLY).
7. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATING LINE(S) - (MULTI-UNITS ONLY).
8. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY).
9. DORMERS, AND ANY OTHER AESTHETIC CONNECTIONS.
10. FOUNDATION SILL PLATE ANCHORAGE.
11. FLOOR INSULATION MAY BE SITE INSTALLED
12. POTABLE WATER SERVICE, MAIN SHUT OFF VALVE
13. OPENING PROTECTION IN WIND DEBRIS REGIONS I.E. WINDOWS, DOORS, SHUTTERS.
14. PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S., TO BE HANDLED BY LOCAL FIRE SAFETY INSPECTOR
15. ROOFING MATERIAL, METAL ROOF, EVE DRIP
16. GABLE ENDWALL FRAMING
17. A/C UNIT
18. GAS LINES WILL BE STUBBED OUT CONNECTIONS AND INSTALLATION TO BE DONE BY OTHERS ON SITE. (WHERE APPLICABLE)
19. A.A.V (AIR ADMITTANCE VALVE TEST) AFTER DWV TEST
20. COMMUNICATION OUTLET PER NEC 800-156

BUILDING INSULATION VALUES:

WALLS:	R-19
FLOOR:	R-11
CEILING:	R-38
WINDOWS:	U = 0.35

12.13 SQUARE FEET NET FREE AREA OF ATTIC VENTILATION TO BE PROVIDED BY SOFFIT AND RIDGE VENTS/ROOF VENTS.

12.13 SQUARE FEET NET FREE AREA OF CRAWL SPACE VENTILATION TO BE PROVIDED BY FOUNDATION CONTRACTOR.

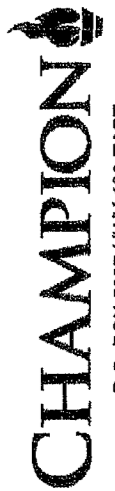
1st-FLOOR IS 1,820 SQ. FT. - TOTAL CONDITIONED FLOOR AREA.

NOTE:

COMPLETION OF THIS BUILDING TO BE IN COMPLIANCE WITH ALL STATE AND LOCAL DESIGN CODES ALL WORK TO BE COMPLETED BY A LICENSED CONTRACTOR AND INSPECTED BY A LOCAL BUILDING OFFICIAL.

NOTE:

"STRUCTURE HAS BEEN DESIGNED FOR INSTALLATION ON SITE - BUILT PERMANENT FOUNDATION AND IS NOT INTENDED TO BE MOVED, ONCE SO INSTALLED."



P.O. BOX 2097 HWY 100 EAST
LAKE CITY, FL 32056

PHILLIP COPELAND, P.E.
DIRECTOR OF MODULAR ENGINEERING
755 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48066
OFFICE 248-614-8343

PHILLIP J. COPELAND
LICENSE
No. 67942
STATE OF FLORIDA
PROFESSIONAL ENGINEER
4-17-13

PROPRIETARY AND CONFIDENTIAL
THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL
PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION

LISTING APPROVAL
AGENCY APPROVAL
THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1976 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA:

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY	130 MPH V _w / 101 MPH V _{ult}
FIRE RATING OF EXT WALLS	0
PLAN NO.	2425-0329F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	4-18-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO

HWC
Hilborn, Werner, Carter and Associates (HWC)
1627 South Myrtle Ave.
Clearwater, Florida 33765

TITLE: COVER SHEET

MODEL: 261-C660

DATE: 02-20-13

DRAWN BY: GAT

REVISED: REVISIONS

SHEET NO: CP-101

PAGE 2425-0329F

2010 FLORIDA RESIDENTIAL BUILDING CODE

1. ALL GLAZING WITHIN 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
2. OCCUPANT LOAD IS BASED ON 1 PERSON PER 200 SQUARE FEET OF FLOOR AREA.
3. MINIMUM CORRIDOR WIDTH IS 36 INCHES.
4. WINDOWS, GLASS, DOORS, SHALL COMPLY WITH AAMA / NWWDA 101 / I.S.2.
5. ALL MATERIALS USE IN THIS CONSTRUCTION OF THE BUILDING WHICH ARE COVERED BY THE FLORIDA BUILDING COMMISSION CHAPTER 61 G20-3 RULES SHALL HAVE CURRENT FLORIDA PRODUCT APPROVAL
6. ALL CONSTRUCTION, MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CODES SPECIFIED ON THE DRAWINGS

MECHANICAL NOTES: 2010 FLORIDA RESIDENTIAL BUILDING CODE

1. ALL SUPPLY AIR REGISTERS ARE ADJUSTABLE, EXCEPT WHERE OTHERWISE SPECIFIED.
2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND/OR AS NOTED ON FLOOR PLAN. PRESSURE DIFFERENTIAL ACROSS CLOSED DOORS SHALL BE LIMITED TO .01 INCH WC (2.5 PASCALS) OR LESS.
3. RESTROOM VENT FANS SHALL PROVIDE 50 CFM MINIMUM OF VENTILATION.
4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
5. IF THIS BUILDING IS LOCATED IN A JURISDICTION THAT HAS ADOPTED THE ORDINANCE FOR RADON-RESISTANT CONSTRUCTION, RULE -9B-52, FLORIDA STATUTE 553.98, RETURN DUCTS AND PLENUMS SHALL NOT BE LOCATED IN THE CRAWL SPACES.

RIDGE BEAM CONSTRUCTION NOTES

1. LVL $F_b = 2800$ PSI, $MOE = 2,000,000$ PSI., MICROLLAM 2.0 SP OR BETTER.
2. LVL OR OTHER SIMILAR MATERIAL MUST BE CONTINUOUS OVER CLEARSPAN(S).
3. BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
4. INSTALL (2x4) x 20" SPF #3 RIDGE BEAM BEARING STIFFENER OVER SUPPORT COLUMNS WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM WITH 100% GLUE COVERAGE AND 8-15 ga x 2 1/2" STAPLES.

ELECTRICAL NOTES: 2008 NEC

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "STORAGE AREA" AS DEFINED BY NEC 410-8(a).
3. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
4. HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
5. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
6. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. ALL CIRCUITS CROSSING OVER MODULE MATING LINE(S) SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES, OR CABLE CONNECTORS
8. ALL OUTLETS LOCATED WITHIN 6 FEET OF A SINK OR BASIN SHALL BE EQUIPPED WITH GFCI PROTECTION.
9. SMOKE DETECTORS SHALL BE WIRED SO THAT THE OPERATION OF ANY ONE SMOKE DETECTOR WILL CAUSE SIMULTANEOUS ACTIVATION OF ALL OTHERS (IN ANY ONE DWELLING UNIT).
10. PROVIDE COMBINATION SMOKE/CARBON MONOXIDE DETECTORS WHEN ANY FOSSIL FUEL APPLIANCES, FIRE PLACES OR ATTACHED GARAGE ARE PROVIDED. (FLORIDA 9B-3.0472)(OUTSIDE OF SLEEPING AREAS)
11. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (WP) ENCLOSURES, THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED.
12. ALL BRANCH CIRCUITS SUPPLYING 15 AND 20 AMPERE OUTLETS IN ALL AREAS EXCEPT KITCHENS AND BATHROOMS ARE PROTECTED BY AN ARC- FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12.2008 NEC.
13. PROVIDE TAMPER RESISTANT RECEPTACLES IN ACCORDANCE WITH SECTION 406.11 2008 NEC

PLUMBING NOTES: 2010 FLORIDA RESIDENTIAL BUILDING CODE

1. ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUT-OFF VALVES.
2. WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T & P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.
3. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED ATTIC SHALL BE INSULATED WITH AN INSULATION OF R-6.5 MINIMUM
4. DWV SYSTEM SHALL BE PVC - DWV.
5. WATER SUPPLY LINES SHALL BE PEX WITH THE MAXIMUM WATER HEATER TEMPERATURE SETTING IS 180° F. THE PEX PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.
6. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. TUB ACCESS PROVIDED UNDER HOME, UNLESS OTHERWISE NOTED.
8. SHOWER STALLS SHALL BE COVERED WITH NON-ABSORBENT MATERIAL TO A HEIGHT OF 72 INCHES ABOVE FINISH FLOOR.
9. SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120° F. (48.8° C)
10. THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER MANUFACTURER SHALL BE SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL APPROVAL.
11. A WATER HAMMER ARRESTOR SHALL BE INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED, UNLESS OTHERWISE APPROVED. WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
12. THIS UNIT MUST BE CONNECTED TO PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE.
13. BACKFLOW PREVENTERS ARE TYPICAL ON ALL EXTERIOR HOSE BIBS

FOUNDATION:

FOUNDATION IS DESIGNED BY OTHERS DETAILS CONTAINED IN THESE TYPICAL DRAWINGS ARE SUPPLEMENTAL AND MUST BE EVALUATED BY FOUNDATION DESIGNER FOR COMPATIBILITY WITH THE FOUNDATION DESIGN.

CHAMPION

P.O. BOX 2097 HWY 100 EAST
LAKE CITY, FL 32056

PHILIP COPELAND, P.E.
DIRECTOR OF MODULAR
ENGINEERING
756 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48068
OFFICE: 248-244-8343

PHILIP J. COPELAND
LICENSE
No. 67942
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
4-17-13

PROPRIETARY AND CONFIDENTIAL
THESE PLANS AND MATERIALS ARE THE PROPERTY OF CHAMPION

AGENCY APPROVAL
THESE PRINTS COMPLY WITH THE FLORIDA
MANUFACTURED BUILDING ACT OF 1975
CONSTRUCTION CODE AND ADHERE TO THE
FOLLOWING CRITERIA:

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY	130 MPH Vel / 101 MPH Vel
FIRE RATING OF EXT. WALLS	0
PLAN NO.	2425-0329F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	4-18-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO

HWC
5/19/2011

Third Party
Hilborn, Warner, Carter
and Associates (HWC)
1827 South Myrtle Ave.
Clearwater, Florida 33766

TITLE:
GENERAL NOTES

MODEL:
261-C660

DATE: 02-20-13

DRAWN BY: GAT

REVISED:
REVISIONS

SHEET NO:
GE-101

PAGE: 2425-0329F

ELECTRICAL SCHEDULE					PANEL SIZING	
BRKR.	NO.	NOMENCLATURE	VOLTS	WIRE CU. NM	DESCRIPTION	KVA
20	1	PORTABLE APPLIANCE	120	12/2 GFCI	FLOOR AREA <u>1,820</u> SF X 3 VA + 1000 =	5.46
20	2	PORTABLE APPLIANCE	120	12/2 GFCI/AFCI	2 SMALL APPLIANCES AT 1500 VA. + 1000 =	3.0
20	3	GFCI RECEPTACLES	120	12/2 GFCI	BUILT-IN OVEN AT 3.6 KW. SINGLE =	3.6
15	4	GENERAL LIGHTING	120	14/2 AFCI	BUILT-IN OVEN AT 8.8 KW. DOUBLE =	
15	5	GENERAL LIGHTING	120	14/2 AFCI	COUNTER MOUNTED COOK TOP AT 7.4 KW =	7.4
15	6	GENERAL LIGHTING	120	14/2 AFCI	RANGE AT 8.0 KW. =	
15	7	GENERAL LIGHTING	120	14/2 AFCI	WATER HEATER AT 5.5 KW =	5.5
15	8	GENERAL LIGHTING	120	14/2 AFCI	OPT. DISHWASHER AT 1.4 KW. =	1.4
15	9	GENERAL LIGHTING	120	14/2 AFCI	WASHER AT 1500 VA./1000 =	1.5
15	10	GENERAL LIGHTING	120	14/2 AFCI	DRYER AT 5.0 KW. =	5.0
30 (2P)	11	WATER HEATER	240	10/2	OPT. FREEZER AT 1.9 KW. =	1.9
20	12	WASHER	120	12/2	OPT. GARBAGE DISPOSAL AT 1.9 KW. =	1.9
30 (2P)	13	DRYER	240	10/3	OPT. WHIRLPOOL TUB AT 1.2 KW. =	1.2
20	14	DISHWASHER	120	12/2	OPT. MICROWAVE AT 1.5 KW. =	1.5
40 (2P)	15	RANGE	240	8/3		
40 (2P)	16	COOK TOP	240	8/3		
20 (2P)	17	BUILT-IN OVEN (SINGLE)	240	12/3	TOTAL LOAD	39.36
40 (2P)	17	BUILT-IN OVEN (DOUBLE)	240	8/3	FIRST 10 KVA AT 100%	10.0
20	18	GARBAGE DISPOSAL	120	12/2	REMAINDER AT 40%	11.74
	19	HVAC COMPRESSOR	SIZED PER MFR. SPECS.		HVAC AT 100%	15.8
	20	HVAC BLOWER	SIZED PER MFR. SPECS.			
15	21	SMOKE DETECTOR	120	14/3 AFCI		
20	22	WHIRLPOOL TUB	120	12/2 GFI		
20	23	FIREPLACE/TV	120	12/2 GFCI, AFCI		
20	24	MICROWAVE	120	12/2		
					TOTAL =	37.54
					TOTAL X 1000 240	156.43
					INSTALL 200 AMP PANEL	
					WITH 200 AMP MAIN BREAKER	

CHAMPION
P O BOX 2087 HWY 100 EAST
LAKE CITY, FL 32056

PHILLIP COPELAND P.E.
DIRECTOR OF MODULAR
ENGINEERING
755 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48068
OFFICE 248-214-8943

PHILLIP J COPELAND
LICENSE
No. 67942
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

4-17-13

PROPRIETARY AND CONFIDENTIAL
THESE PRINTS CONTAIN PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION

LISTING
AGENCY APPROVAL
THESE PRINTS COMPLY WITH THE FLORIDA
MANUFACTURED BUILDING ACT OF 1971
CONSTRUCTION CODE AND ADHERE TO THE
FOLLOWING CRITERIA:

CONSTR TYPE VB
OCCUPANCY R-3
ALLOWABLE NO. OF FLOORS 1
WIND VELOCITY 130 MPH V_W / 101 MPH V_W
EXT. WALLS 0
PLAN NO. 2425-0329F
ALLOW. FLOOR LOAD 40
APPROVAL DATE 4-18-13
MANUFACTURER Champion Home Builders
HIGH VELOCITY HURRICANE ZONE NO

IWC
INCORPORATED

Third Party
Hilborn, Werner, Carter
and Associates (HWCA)
1827 South Myrtle Ave.
Clearwater, Florida 33766

TITLE
ELECTRIC PANEL

MODEL
261-C660

DATE 02-20-13

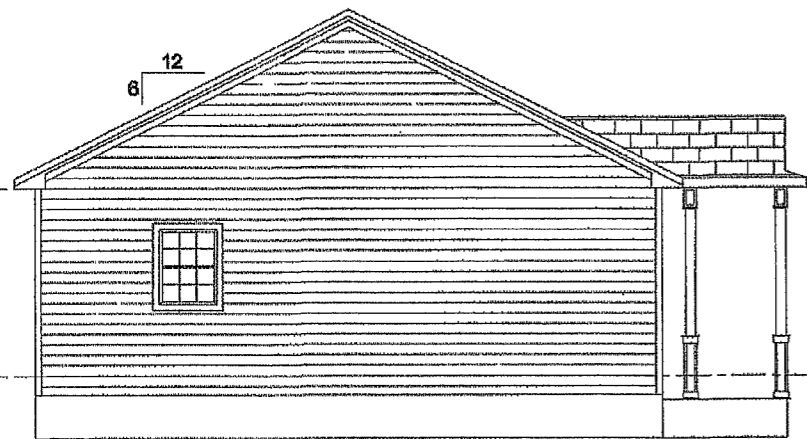
DRAWN BY GAT

REVISED

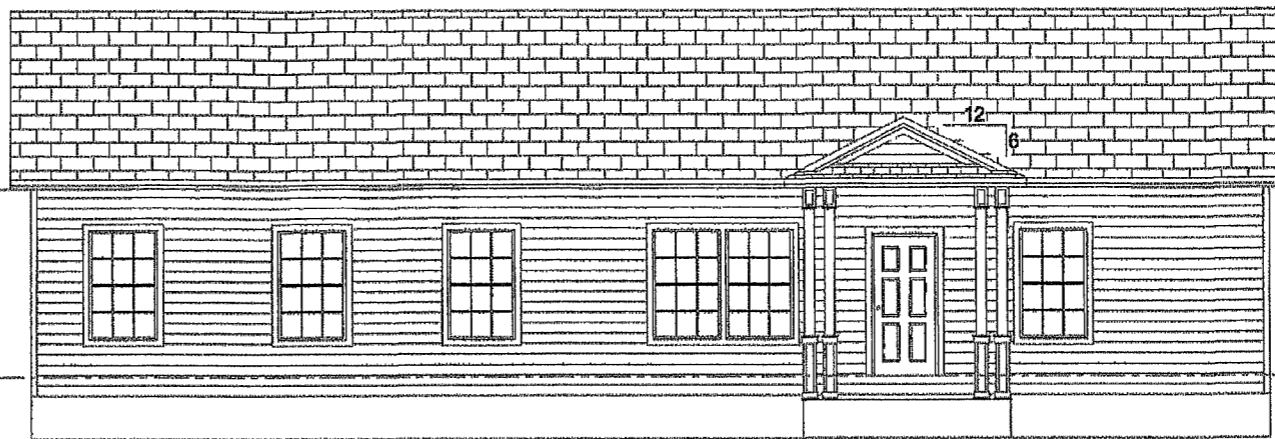
REVISIONS

SHEET NO
GE-102

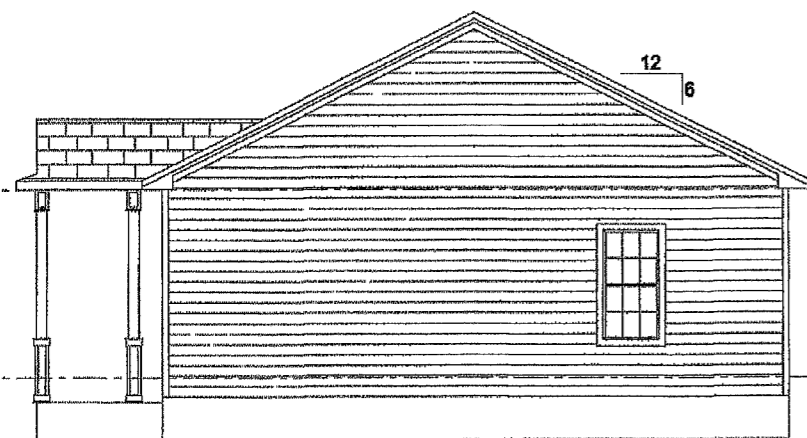
PAGE 2425-0329F



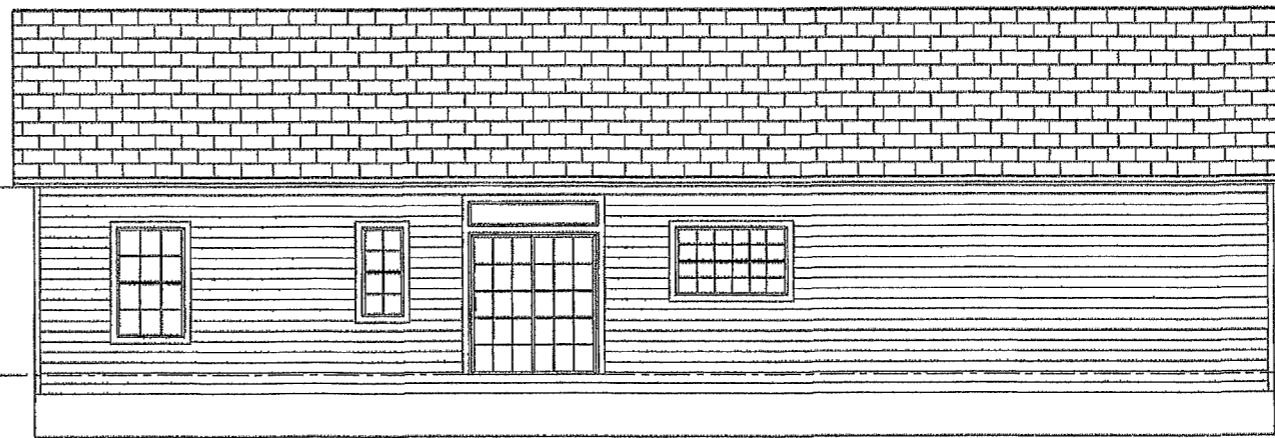
LEFT ELEVATION



FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION

108" MAX. WALL HEIGHT

FINISH FLOOR

108" MAX. WALL HEIGHT

FINISH FLOOR

ELEVATION NOTES:

NOTE. UNDERPINNING AND STOOPS ON SITE BY OTHERS TYPICAL ONLY

FOUNDATION ENCLOSURE MUST HAVE 1-SQUARE FOOT NET VENT AREA 1/150th OF THE FLOOR AREA, AND A 18"x24" MINIMUM CRAWL SPACE ACCESS, SITE INSTALLED BY OTHERS AND SUBJECT TO LOCAL JURISDICTION

STAIR(S) AND HANDRAILS ARE SITE INSTALLED, DESIGNED BY OTHERS AND SUBJECT TO LOCAL JURISDICTION.

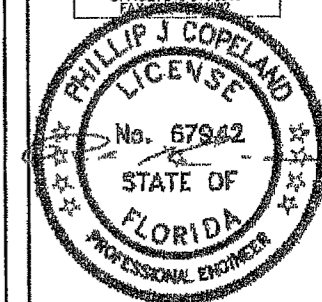
DRAWINGS MAY NOT DEPICT ACTUAL PRODUCT - OPTIONS MAY VARY

** IF WINDOW SILLS ARE LESS THAN 24" ABOVE FINISHED FLOOR AND OVER 7" ABOVE GRADE WINDOW GUARDS ARE REQUIRED (R613.2 EXC. 2.)

CHAMPION

P O BOX 2097 HWY 100 EAST
LAKE CITY, FL 32056

PHILIP COPELAND, P.E.
DIRECTOR OF MODULAR
ENGINEERING
785 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48065
OFFICE: 248-614-8343
FAX: 248-614-8342



4-17-13

PROPRIETARY AND CONFIDENTIAL
THESE DRAWINGS ARE THE PROPERTY OF CHAMPION
PROPRIETARY AND CONFIDENTIAL UNLESS OTHERWISE NOTED

LISTING AGENCY APPROVAL
THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1970 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA:

CONST. TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY FIRE RATING OF EXT WALLS	150 MPH vs. 110 MPH and 0
PLAN NO.	2425-0329F
APPROVAL DATE	4-18-13
ALLOW. FLOOR LOAD	40
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO



Third Party
Hilborn Warner Center
and Associates (HWC)
1627 South Myrtle Ave.
Clearwater, Florida 33766

TITLE
ELEVATIONS

MODEL
261-C660

DATE: 02-20-13

DRAWN BY: GAT

REVISED:
REVISIONS

SHEET NO:
EV-101

PAGE 2425-0329F

PHILLIP COPELAND, P.E.
DIRECTOR OF MODULAR
ENGINEERING
755 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48068
OFFICE 248-614-8343

PROPRIETARY AND CONFIDENTIAL
THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL
PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION

LISTING AGENCY APPROVAL
THESE PRINTS COMPLY WITH THE FLORIDA
MANUFACTURED BUILDING ACT OF 1975
CONSTRUCTION CODE AND ADHERE TO THE
FOLLOWING CRITERIA:

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY	130 MPH Vel / 50 MPH Vel
FIRE RATED EXT WALLS	0
PLAN NO.	2425-0329F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	7-18-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO

Third Party: Hilborn Werner Carter and Associates (HWC) and Associates (HWC) 1627 South Myrtle Ave. Clearwater, Florida 33768

TITLE: **1st FLOOR PLAN**

MODEL: **261-C660**

DATE: 02-20-13

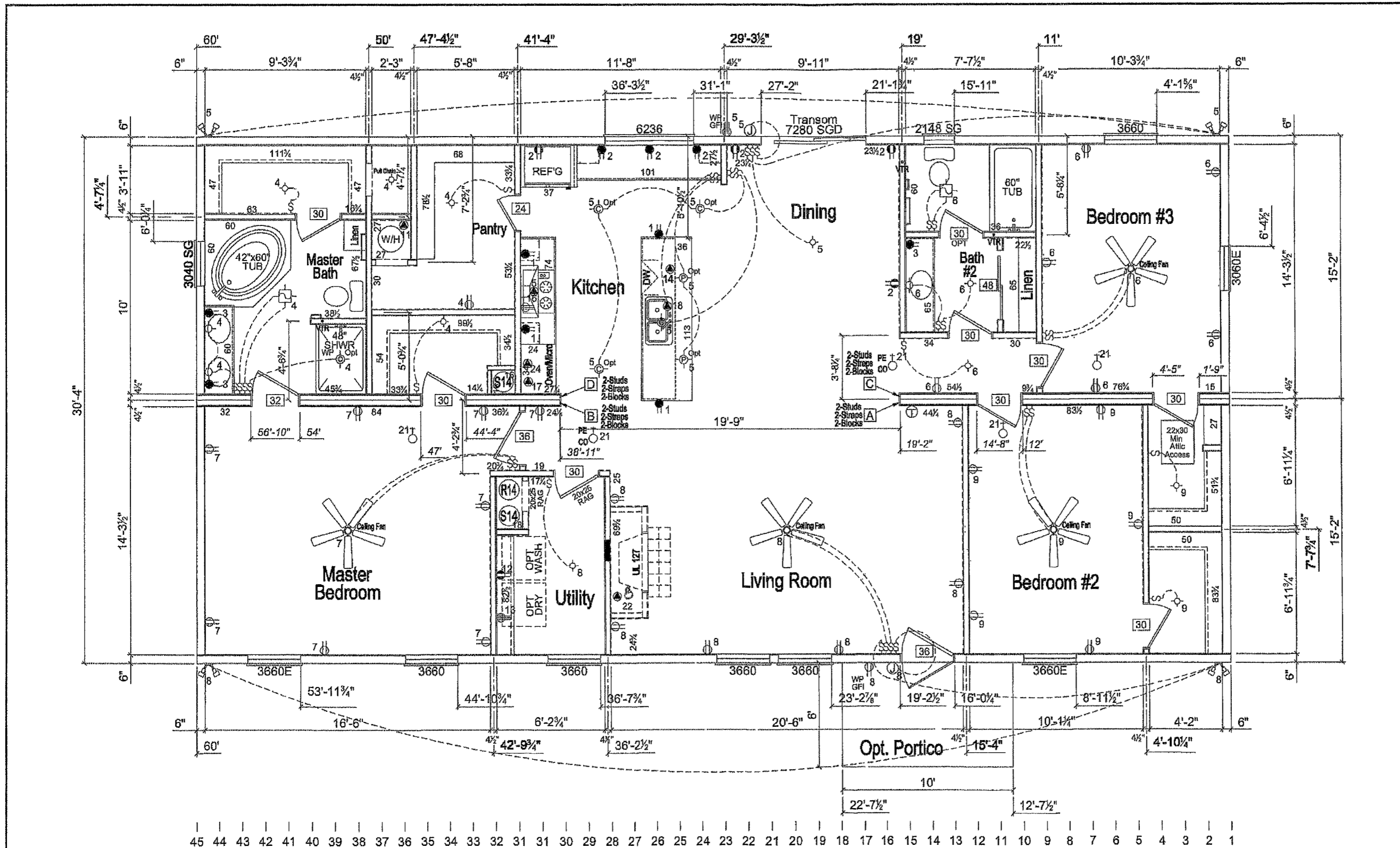
DRAWN BY: GAT

REVISED

REVISIONS

SHEET NO. **AP-101**

PAGE: 2425-0329F



45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

ELECTRICAL LEGEND

⊕ GENERAL LIGHTING RECEPTACLE 120 VOLT - 15 AMP	⊕ 240 VOLT RECEPTACLE	⊕ CEILING VENT FAN WITH LIGHT	⊕ CEILING VENT FAN
⊕ G.F.I. PROTECTED RECEPTACLE 120 VOLT - 15 AMP	⊕ THERMOSTAT	⊕ CEILING LIGHT	⊕ FLUORESCENT LIGHT
⊕ Small Appl. & or Gen. Lighting Recept 120 VOLT - 20 AMP	⊕ SMOKE ALARM	⊕ WALL LIGHT	⊕ SINGLE POLE SWITCH (3 DENOTES 3-WAY)
⊕ G.F.I. PROTECTED RECEPTACLE 120 VOLT - 20 AMP	⊕ MAIN PANEL	⊕ SPECIAL PURPOSE CONNECTION	
⊕ JUNCTION BOX	⊕ COMBINATION CARBON MONOXIDE/SMOKE ALARM	⊕ PE DENOTES PHOTO-ELECTRIC	

NOTE: - POWER RANGE HOOD STANDARD.
- ALL EXTERIOR RECEPTS AND LIGHTS ARE WEATHER PROOF
- CIRCUIT NUMBERS MAY VARY AND NOT ALL CIRCUITS ARE IN USE
- CIRCUITS 1 & 2 ARE SMALL APPLIANCE CIRCUITS.

ADDITIONAL HINGED ROOF DETAILS MUST BE INCLUDED WHEN HOME IS BUILT WITH HINGED ROOF IF WINDOW SILLS ARE LESS THAN 24" ABOVE FINISHED FLOOR AND OVER 7' ABOVE GRADE WINDOW GUARDS ARE REQUIRED.

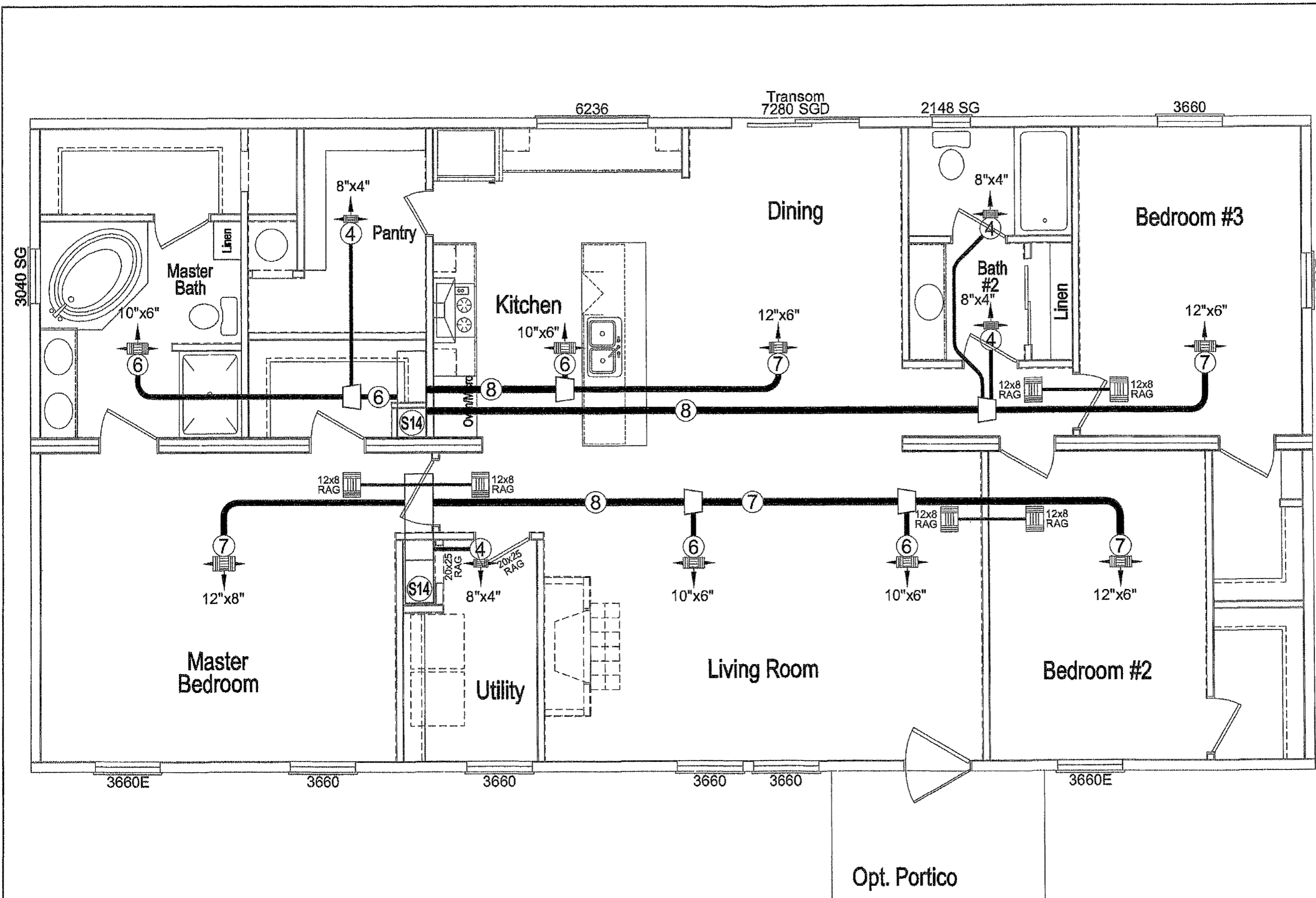
NOTES
1. ALL INTERIOR PASSAGE DOORS TO BE A MIN. 4' x 8' UNLESS OTHERWISE NOTED
2. HOME MAY BE BUILT IN MIRROR IMAGE.

INTERIOR FINISH MATERIAL

CEILING - 1/2" MINIMUM GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
WALL - 1/2" MIN. GYPSUM BOARD INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
FLOOR - BLOCK TILE OR LINOLEUM MAY BE USED IN WET AREAS. CARPET, BLOCK TILE, OR LINOLEUM MAY BE INSTALLED IN ALL OTHER AREAS.

NOTE 1 ALL COLUMN STUDS TO BE #3 SPF AND SHALL BE GLUED & NAILED TOGETHER.
2. COLUMN STUDS SHALL NOT BE NOTCHED OR BORED
3. INSTALL SW STRAP ON EACH STUD OF EACH COLUMN 1-520 STRAP MAY REPLACE SW STRAP AT FLOOR.
4. MARRIAGE WALL STRAPPING REQ'D 16" O.C.

RIDGE BEAM
Material Microllam: 1 1/2" x 16"
For Spans A to B, C to D



CHAMPION
 P.O. BOX 2097 HWY 100 EAST
 LAKE CITY, FL 32056

PHILLIP COPELAND P.E.
 DIRECTOR OF MODULAR
 ENGINEERING
 756 WEST BIG BEAVER ROAD
 SUITE 1000
 TROY, MI 48066
 OFFICE: 248-614-8343

PHILLIP J COPELAND
 LICENSE
 No. 57942
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER
 4-17-13

PROPRIETARY AND CONFIDENTIAL
 THESE DRAWINGS AND ALL INFORMATION CONTAINED
 HEREIN ARE THE SOLE PROPERTY OF CHAMPION

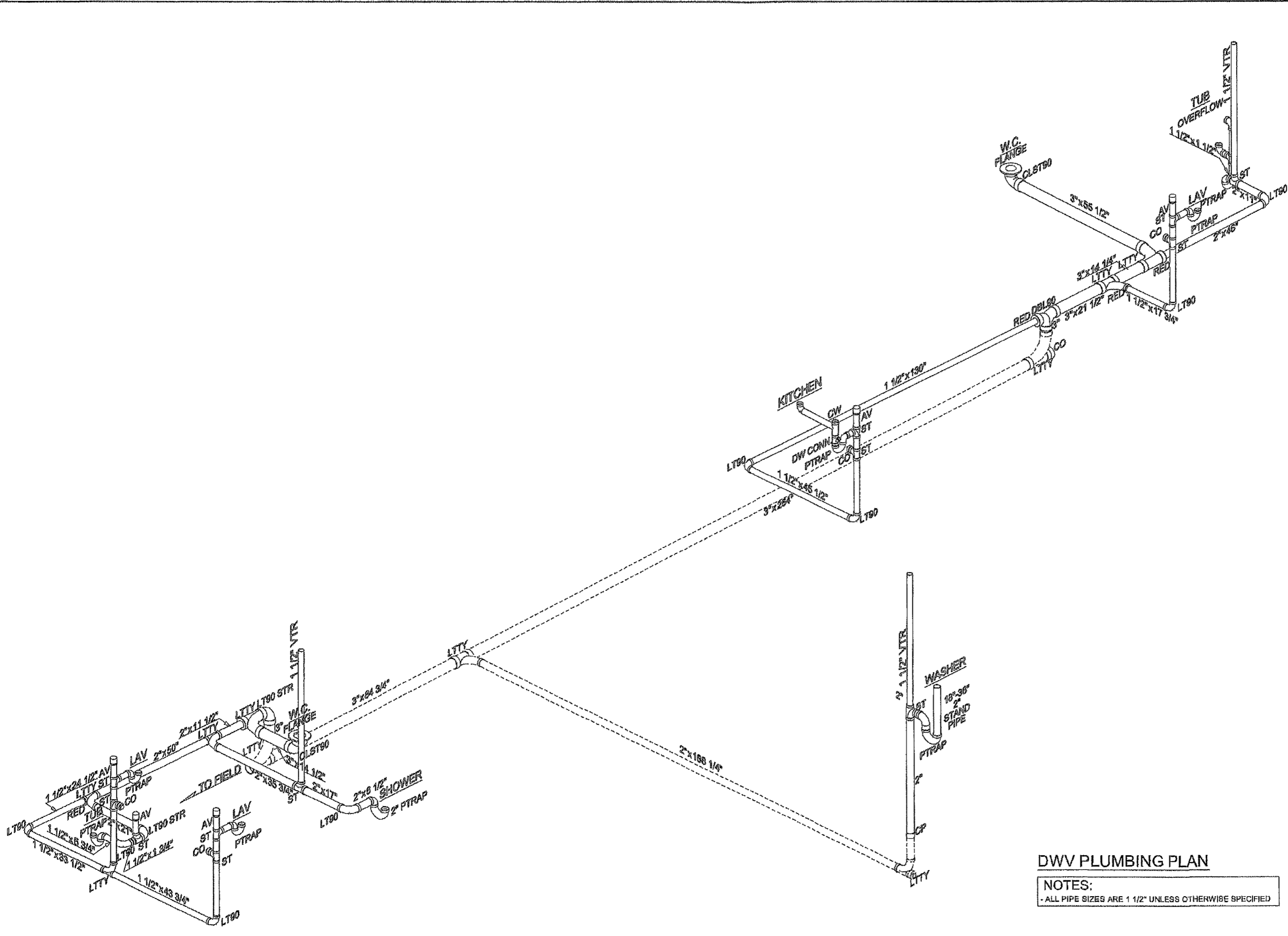
LISTING
 AGENCY APPROVAL
 THESE PRINTS COMPLY WITH THE FLORIDA
 MANUFACTURED BUILDING ACT OF 1978
 CONSTRUCTION CODE AND REFER TO THE
 FOLLOWING CRITERIA.

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY	130 MPH Vel / 101 MPH Wind
FIRE RATING OF EXT WALLS	0
PLAN NO.	2425-0329F
ALLOW. FLOOR LOAD	60
APPROVAL DATE	4-17-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO

Third Party: Hillborn, Werner, Carter and Associates (H/W/C) 1627 South Myrtle Ave. Clearwater, Florida 33756

HWC
 HUR 061

TITLE:	MECHANICAL 1st FLOOR
MODEL:	261-C660
DATE:	02-20-13
DRAWN BY:	GAT
REVISED:	REVISIONS
SHEET NO.:	ME-101
PAGE:	2425-0329F



DWV PLUMBING PLAN

NOTES:
 - ALL PIPE SIZES ARE 1 1/2" UNLESS OTHERWISE SPECIFIED

CHAMPION
 P.O. BOX 2087 HWY 100 EAST
 LAKE CITY FL 32056

PHILLIP COPELAND P.E.
 DIRECTOR OF MODULAR
 ENGINEERING
 765 WEST BIG BEAVER ROAD
 SUITE 1000
 TROY, MI 48068
 OFFICE 248-514-9343
 CELL 248-282-8268

PHILLIP J COPELAND
LICENSE
 No. 67942
 STATE OF
 FLORIDA
 PROFESSIONAL ENGINEER

4-17-13

PROPRIETARY AND CONFIDENTIAL
 THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL
 PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION.

LISTING AGENCY APPROVAL
 THESE PRINTS COMPLY WITH THE FLORIDA
 MANUFACTURED BUILDING ACT OF 1979
 CONSTRUCTION CODE AND ADHERE TO THE
 FOLLOWING CRITERIA:

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY FINE RAY/50 FT EXT WALL	130 MPH Vel / 101 MPH Vel
PLAN NO.	2425-0329F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	4-17-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO

HWC
 100-01

Third Party
 Hilborn, Warner, Carter
 and Associates (HWC)
 1627 South Myrtle Ave.
 Clearwater, Florida 33755

TITLE:
**1st FLOOR
 DWV PLUMBING**

MODEL:
261-C660

DATE: 02-20-13

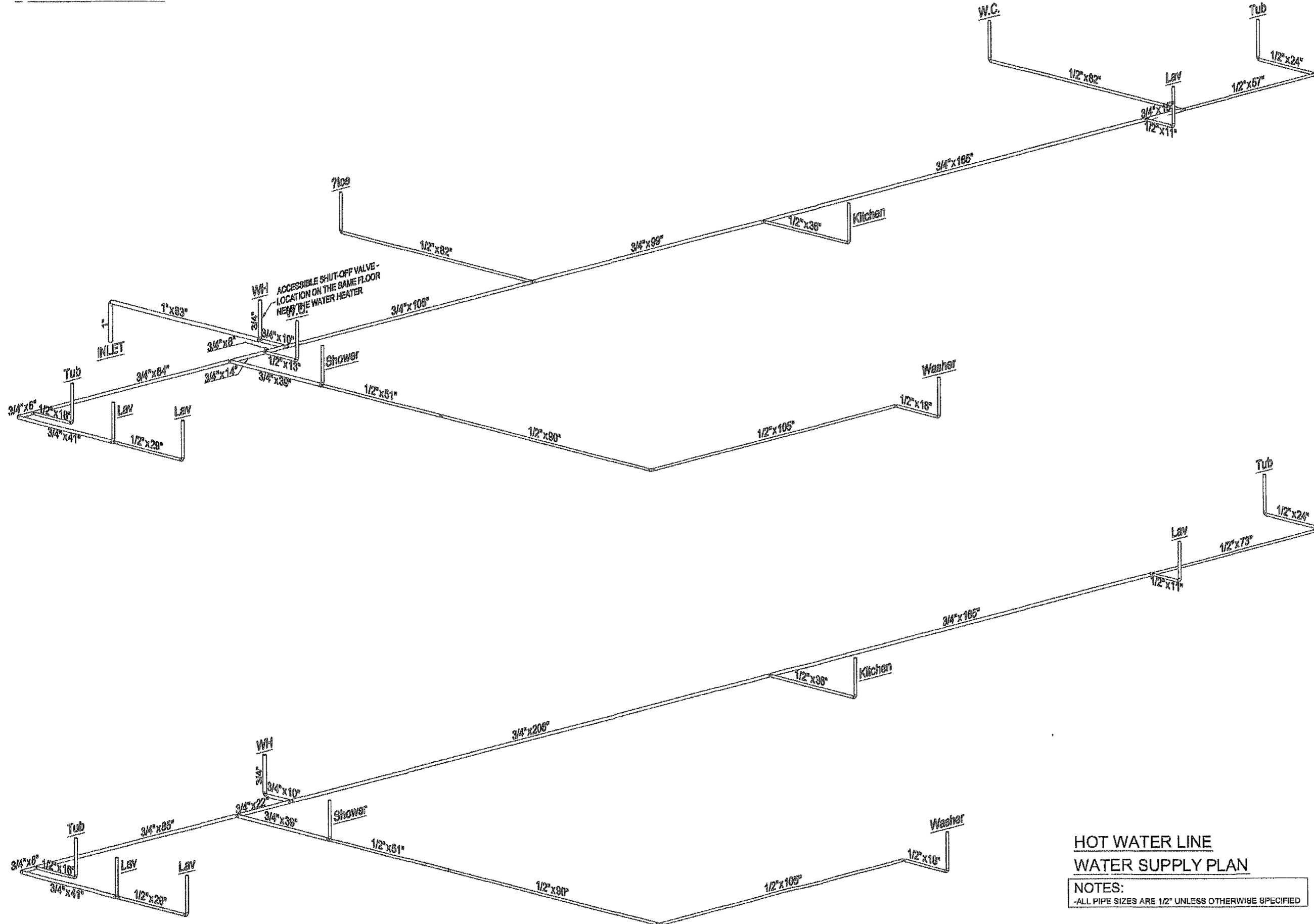
DRAWN BY: GAT

REVISED:
 REVISIONS

SHEET NO:
PP-101

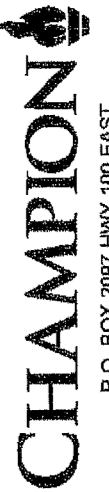
PAGE: 2425-0329F

COLD WATER LINE



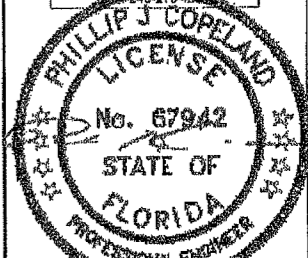
**HOT WATER LINE
WATER SUPPLY PLAN**

NOTES:
-ALL PIPE SIZES ARE 1/2" UNLESS OTHERWISE SPECIFIED



P O BOX 2087 HWY 100 EAST
LAKE CITY, FL 32056

PHILLIP COPELAND, P.E.
DIRECTOR OF MODULAR
ENGINEERING
765 WEST BIG BEAVER ROAD
SUITE 1000
TROY, MI 48068
OFFICE: 248-644-8443



4-17-13

PROPRIETARY AND CONFIDENTIAL
THESE PRINTS ARE ORIGINAL
PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION.

**LISTING
AGENCY APPROVAL**

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1970 CONSTRUCTION CODE AND AGREE TO THE FOLLOWING CRITERIA:

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY	130 MPH V ₅₀ / 110 MPH V ₃
SEF RATING OF EXT WALLS	0
PLAN NO	2425-0329F
ALLOW FLOOR LOAD	40
APPROVAL DATE	4-18-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO



Third Party:
Hilborn, Warner, Carter
and Associates (HWC)
1627 South Myrtle Ave.
Clearwater, Florida 33766

**TITLE:
1st FLOOR
WATER LINES**

MODEL:
261-C660

DATE: 02-20-13

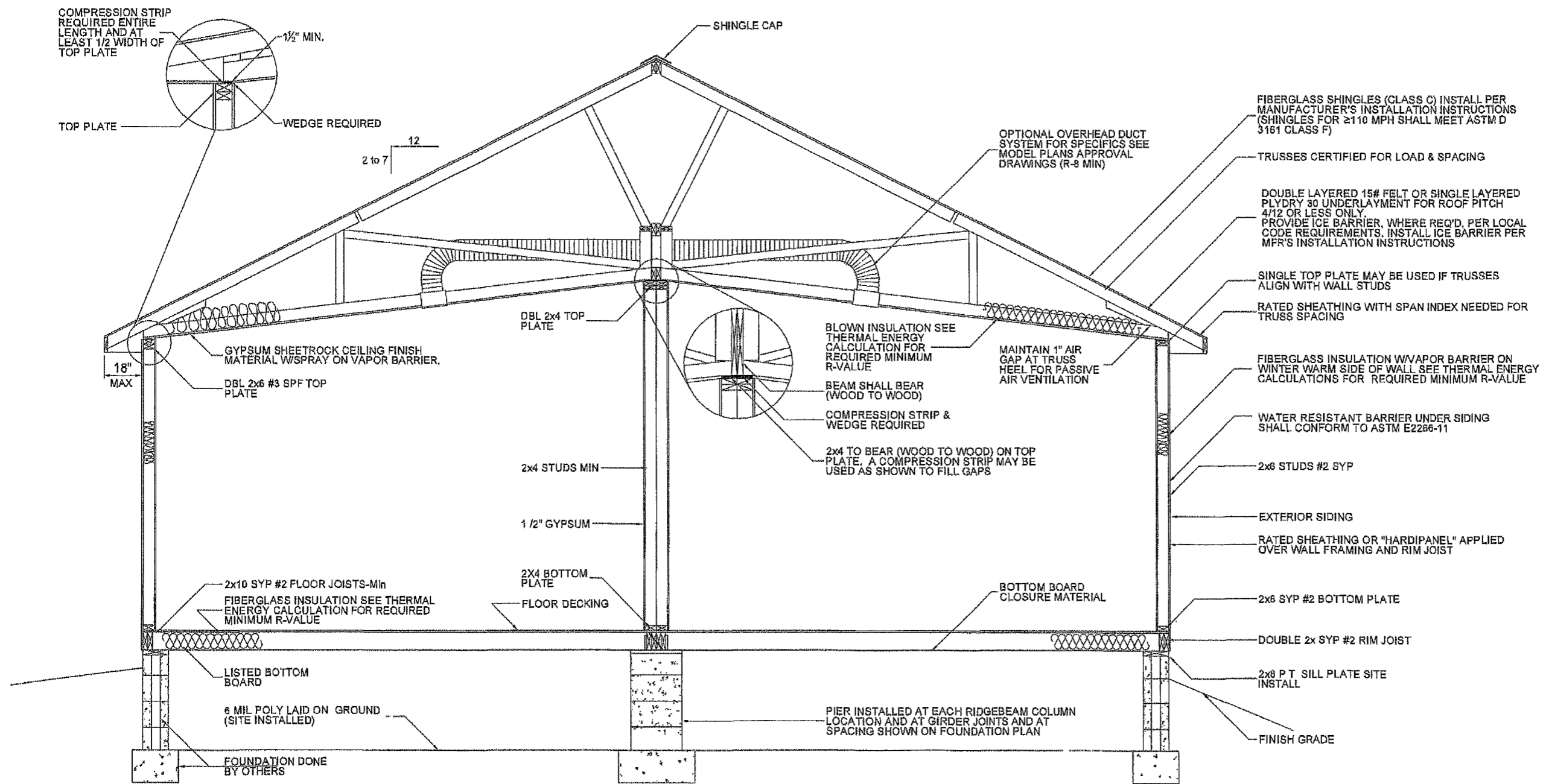
DRAWN BY: GAT

REVISED:
REVISIONS

SHEET NO:
WP-101

PAGE: 2425-0329F

NOTE: COMPRESSION STRIP SHALL BE RATED SHEATHING I.e. PLYWOOD OR OSB WEDGE SHALL BE RIPPED LUMBER #3 SPF OR BETTER



NOTES:

1. JOINTS IN CENTERLINE JOIST TO FALL OVER PIERS.
2. ATTIC VENTILATION TO BE PROVIDED AT THE RATE OF 1.0 SF OF VENT PER 300 SF OF ATTIC AREA. VENTILATION TO BE PROVIDED BY MEANS OF CONTINUOUS EAVE VENTS, ROOF VENTLATORS ON THE HIGH SIDE OF THE ROOF, AND WHEN NEEDED GABLE EAVE VENTS.

FOR EXTERIOR WALL AND CENTER LINE PIERS SEE TYPICAL FOUNDATION.

BELOW IS FOR REFERENCE ONLY COMPLETE FOUNDATION DESIGN IS TO BE DONE BY A LICENSED ENGINEER

CHAMPION
P.O. BOX 2097 HWY 100 EAST
LAKE CITY, FL 32056

PHILIP COPELAND, P.E.
DIRECTOR OF MODULAR ENGINEERING
755 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48068
OFFICE: 248-244-0343
248-275-0343

PHILIP J. COPELAND
LICENSE
No. 67942
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PROPRIETARY AND CONFIDENTIAL
THESE DOCUMENTS ARE ORIGINAL
PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION.

4-17-13

LISTING AGENCY APPROVAL
THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 8974 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA:

CONST TYPE	VB
OCCUPANCY	R-3
ALLOWABLE NO. OF FLOORS	1
WIND VELOCITY	130 MPH Vel / 101 MPH Vel
FIBER MATERIALS	0
PLANK NO.	2425-0329F
ALLOW. FLOOR LOAD	40
APPROVAL DATE	4-13-13
MANUFACTURER	Champion Home Builders
HIGH VELOCITY HURRICANE ZONE	NO

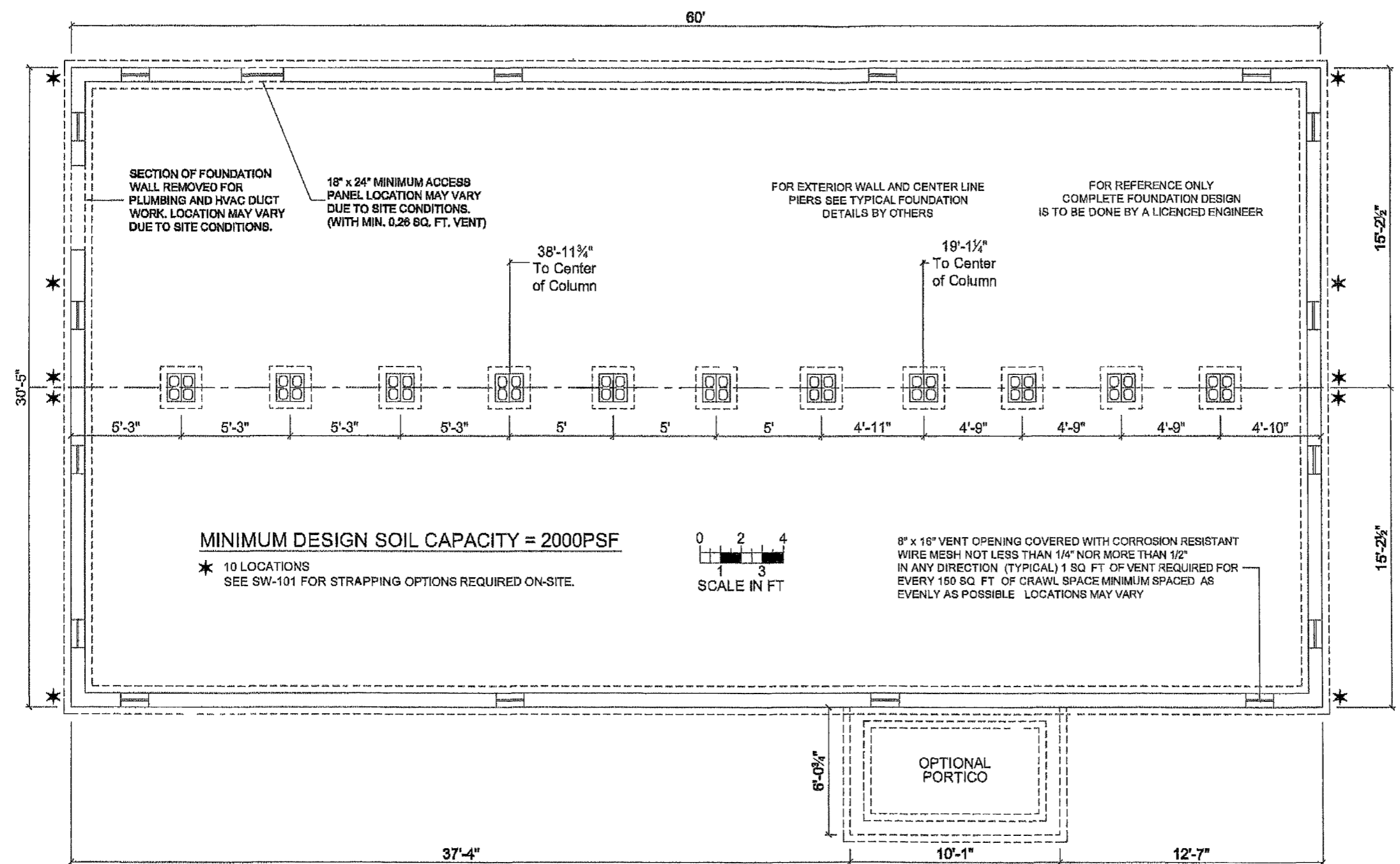
IWG
MAR-201

Third Party: Hilborn, Werner, Carter and Associates (HWC) 1627 South Myrtle Ave. Clearwater, Florida 33755

TITLE	TYPICAL CROSS-SECTION
MODEL	261-C660
DATE	02-20-13
DRAWN BY	GAT
REVISED	
REVISIONS	
SHEET NO	SE-101
PAGE	2425-0329F

PHILIP COPLAND P.E.
DIRECTOR OF MODULAR
ENGINEERING
765 WEST BIG BEAVER ROAD
SUITE 1000
TROY MI 48065
OFFICE: 248-814-8343
FAX: 248-273-4282

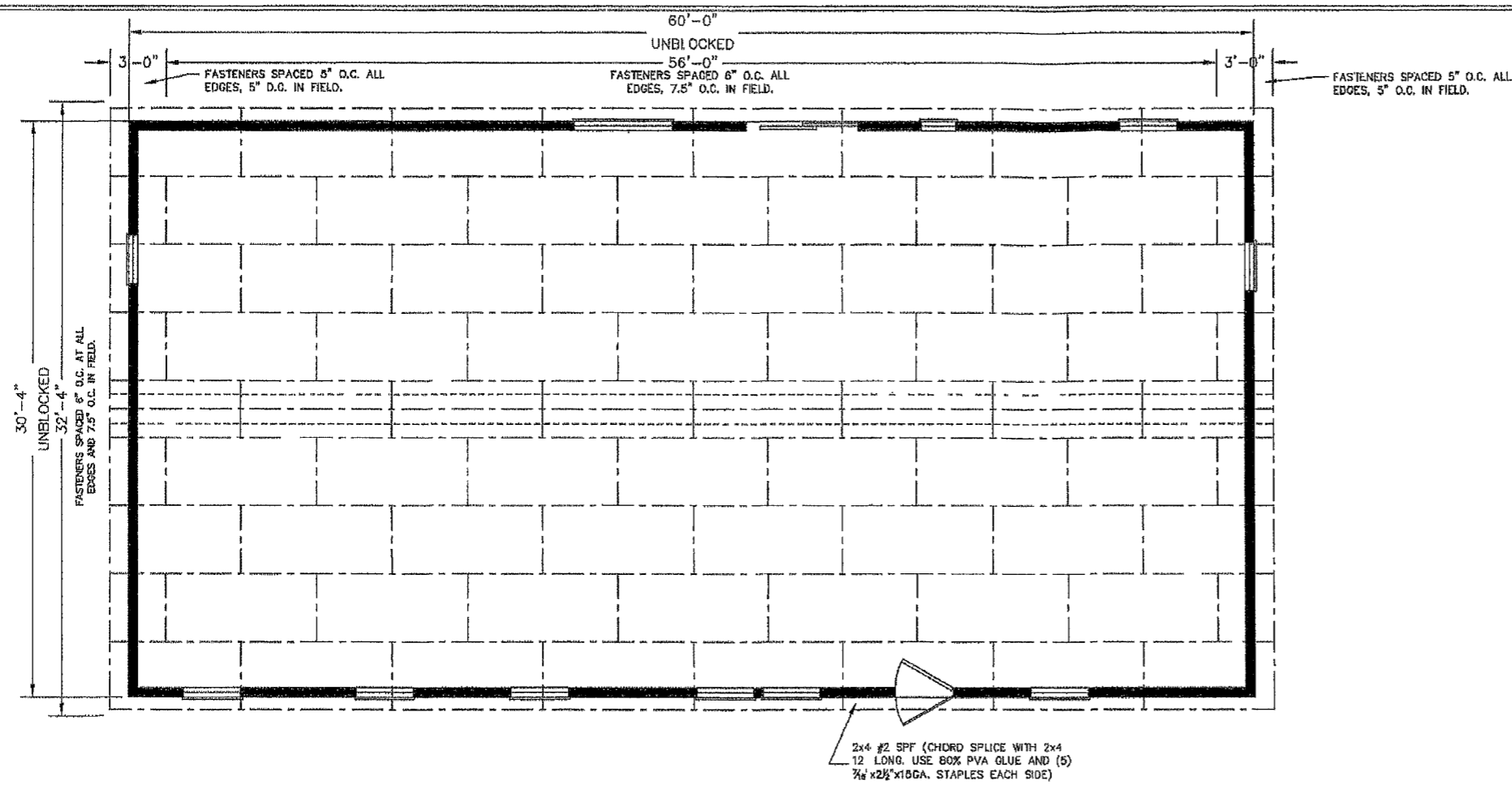
PROPRIETARY AND CONFIDENTIAL
THIS DRAWING IS THE PROPERTY OF CHAMPION
PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION



FOUNDATION NOTES:

- THIS FOUNDATION PLAN IS PROVIDED FOR REFERENCE AS A TYPICAL STANDARD. ACTUAL FOUNDATION CONDITIONS MUST BE EVALUATED FOR APPLICABILITY IF THIS PLAN IS TO BE USED. ALTERNATE FOUNDATION PLANS MAY BE DESIGNED BY OTHERS IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTION HAVING AUTHORITY IF FOUNDATION PLANS ARE DESIGNED BY OTHERS, THE ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND THE CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE'S STRUCTURAL COMPONENTS AND SYSTEMS RELATED THERETO.
- ALL FOUNDATION CONSTRUCTION MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
- EXCAVATE AN ADDITIONAL 1 TO 2 INCHES AT BOTTOM AND SIDES OF ALL FOOTINGS THAT ARE POURED DIRECTLY AGAINST EARTH.
- ALL PIERS SHALL BE CONSTRUCTED OF 8" X 8" X 16" NOMINAL STANDARD WEIGHT CONCRETE MASONRY UNITS LAID IN RUNNING BOND PATTERN AND CONFORMING TO ASTM C90 HAVING A UNIT COMPRESSIVE STRENGTH OF 1900 PSI ($f_m = 1600$ PSI). MASONRY UNITS SHALL BE FULLY LAID IN TYPE M OR S MORTAR OR COVERED WITH SURFACE BONDING CEMENT COMPLYING WITH ASTM C887 AND APPLIED IN STRICT ACCORDANCE WITH THE CEMENT MANUFACTURER'S INSTRUCTIONS, WITH THE BOTTOM COARSE FULLY LAID IN TYPE M OR S MORTAR. REINFORCEMENT BARS AND PIER FOOTINGS SHALL BE DESCRIBED ON THE FOUNDATION PLAN AND IN THE PIER DETAILS.
- CONCRETE SHALL BE STANDARD WEIGHT (150 PCF) WITH A MINIMUM COMPRESSIVE STRENGTH 3000 PSI AT 28 DAYS. MORTAR SHALL COMPLY WITH ASTM C270. GROUT SHALL COMPLY WITH ASTM C476 AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
- ALL REINFORCEMENT BARS SHALL COMPLY WITH ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL BE UNCOATED DEFORMED BARS (NO EPOXY). REINFORCEMENT BARS SHALL BE EQUALLY SPACED AND PLACED WITH 3" CLEARANCE FROM BOTTOM AND SIDES OF THE FOOTING. AT SPLICES LAP ALL #4 BARS 24 INCHES MINIMUM AND LAP ALL #6 BARS 30 INCHES MINIMUM. OFF SET ALL SPLICES 30 INCHES MINIMUM.
- ALL PIERS SHALL BE CAPPED WITH 4 INCHES OF SOLID MASONRY OR CONCRETE OR THE CAVITIES OF THE TOP COURSE SHALL BE FILLED WITH CONCRETE OR GROUT. PIERS SHALL PROVIDE A TRUE AND EVEN BEARING SURFACE.
- THE CENTERLINE OF EACH PIER SHALL BE LOCATED DIRECTLY BELOW THE MATE LINE CENTERLINE WITH 1 INCH MAXIMUM TOLERANCE.
- SOIL BEARING CAPACITY IS ASSUMED TO BE 2000 PSF MINIMUM. IF THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN 2000 PSF, THE ENGINEER MUST BE CONSULTED FOR REQUIRED ALTERNATE FOUNDATION DESIGN. FOOTINGS SHALL BE PLACED ON NON-EXPANSIVE SOILS ONLY. IT IS THE RESPONSIBILITY OF THE SITE OR A/HJ CONTRACTOR TO OBTAIN PROFESSIONAL VERIFICATION OF THE SOIL BEARING CAPACITY FOR THE ACTUAL SITE.
- THE AREA UNDER FOOTINGS AND FOUNDATIONS SHALL HAVE ALL VEGETATION, STUMPS, ROOTS, AND FOREIGN MATERIALS REMOVED PRIOR TO THEIR CONSTRUCTION.
- THE PERIMETER GRADE SHALL BE SLOPED AWAY FROM THE BUILDING TO PROVIDE POSITIVE DRAINAGE. THE GRADE OF THE GROUND UNDER THE BUILDING SHALL NOT BE LOWER THAN THE LOWEST SURROUNDING FINISHED LOT AREA GRADE IN ORDER TO PREVENT THE ACCUMULATION AND STANDING OF WATER UNDER THE BUILDING.
- ALL STAIRS, RAMPS, DECKS AND OTHER SITE WORK NOT SHOWN ON THESE DRAWINGS ARE DESIGNED BY OTHERS AND SUBJECT TO THE APPROVAL OF THE JURISDICTION HAVING AUTHORITY.
- TERMITE PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE CODES WHEN REQUIRED BY SUCH CODES.
- THE FOUNDATION DIMENSIONS SHOWN INCLUDE AN INCREASE IN MODULE WIDTH DUE TO MODULE EXPANSION, SETTING TOLERANCES, ETC. THE FOUNDATION CONTRACTOR SHOULD CONSULT WITH THE MANUFACTURER OF THE MODULES PRIOR CONSTRUCTION OF THE FOUNDATION TO DETERMINE THE APPROPRIATE AMOUNT OF INCREASED WIDTH TO BE ADDED TO THE NOMINAL DIMENSIONS SHOWN ON THE FOUNDATION PLAN.
- THIS FOUNDATION IS NOT DESIGNED FOR LOCATION IN A FLOOD ZONE.
- GROUND SURFACE IN CRAWLSPACE SHALL BE COVERED WITH AN APPROVED VAPOR RETARDED.
- SEE MODEL PLAN FOR SHEAR WALL TIE DOWN AND FOUNDATION UPLIFT DETAILS AND SEE TYPICAL PACKAGE FOR GENERAL TIE DOWN REQUIREMENTS AND ADDITIONAL CONSTRUCTION REQUIREMENTS.
- THIS FOUNDATION PLAN IS ONLY APPLICABLE TO THE MODEL NUMBER SPECIFIED IN THE TITLE BLOCK. FOUNDATION PLAN IS NOT VALID FOR ANY MODEL CHANGES MADE AFTER THE CERTIFICATION DATE OF THIS FOUNDATION DESIGN. SEE MODEL PLAN COVER SHEET FOR STRUCTURAL LOAD LIMITATIONS.
- THIS FOUNDATION DESIGN MUST INCORPORATE ALL CAST IN PLACE STRAPS AND ANCHOR BOLTS AS SHOWN ON ATTACHED SHEARWALL CALCULATIONS AND DRAWINGS IN ORDER TO COMPLETE THE LOAD PATH ASSOCIATED WITH THE MAIN WIND FORCE RESISTING SYSTEM OF THIS HOME ANY VARIATION IN RECOMMENDED CONNECTIONS MUST BE DESIGNED BY AN ENGINEERING PROFESSIONAL.

TITLE:	PERIMETER FOUNDATION
MODEL:	261-C660
DATE:	02-20-13
DRAWN BY:	GAT
REVISED:	REVISIONS
SHEET NO:	F-102
PAGE:	

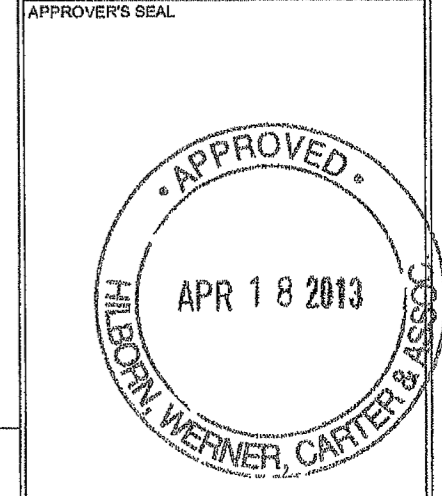
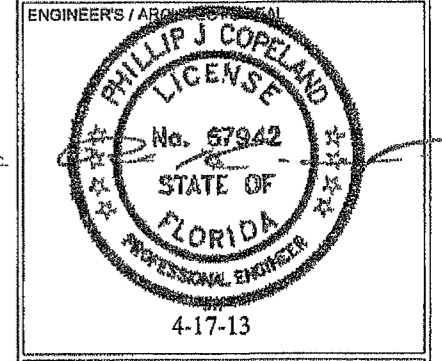


DESIGN PROFILE	
SEISMIC ZONE:	C
WIND SPEED: (STRENGTH DESIGN PER ASCE7-10)	130 MPH
WIND SPEED: (NOMINAL DESIGN PER ASCE7-05)	101 MPH
EXPOSURE:	C
MEAN ROOF HEIGHT:	30'-0"
ROOF PITCH:	6 / 12
WALL HEIGHT:	108 IN.

- NOTES:**
- USE 5/8" RATED SHEATHING FOR TRUSSES @ 16" O.C. & 1 1/2" RATED SHEATHING FOR TRUSSES @ 24" O.C.
 - FASTENERS SHALL BE 3/8"x1 1/2"x15GA. STAPLES (MIN.) SPACED AS INDICATED ABOVE
 - DIAPHRAGM WITH SPF FRAMING RATED FOR 224 PLF UNBLOCKED PER ESR-1539 WITH 40% INCREASE PER IBC 2009 / 2010 FBC WIND LOAD ONLY
224 PLF BLOCKED PER ESR-1539 WITH 40% INCREASE PER IBC 2009 / 2010 FBC WIND LOAD ONLY
 - CALCULATIONS OUTLINE THE MWFRS (PER ASCE-10) ONLY. REFERENCE STATE APPROVED DESIGN MANUAL FOR ADDITIONAL STRUCTURAL INFORMATION
 - FOUNDATION DESIGN PERFORMED BY OTHERS BASED ON SITE CONDITIONS AND MUST ACCOMMODATE ALL UPLIFT AND LATERAL FORCES AS NOTED.

ROOF DIAPHRAGM

CHAMPION ENGINEERING
 765 W BIG BEAVER ROAD SUITE 1000
 TROY, MI 48064
 PHONE 248-614-8200



MODIFICATIONS

TITLE:
ROOF DIAPHRAGM SHEARWALL LAYOUT
 MWFRS

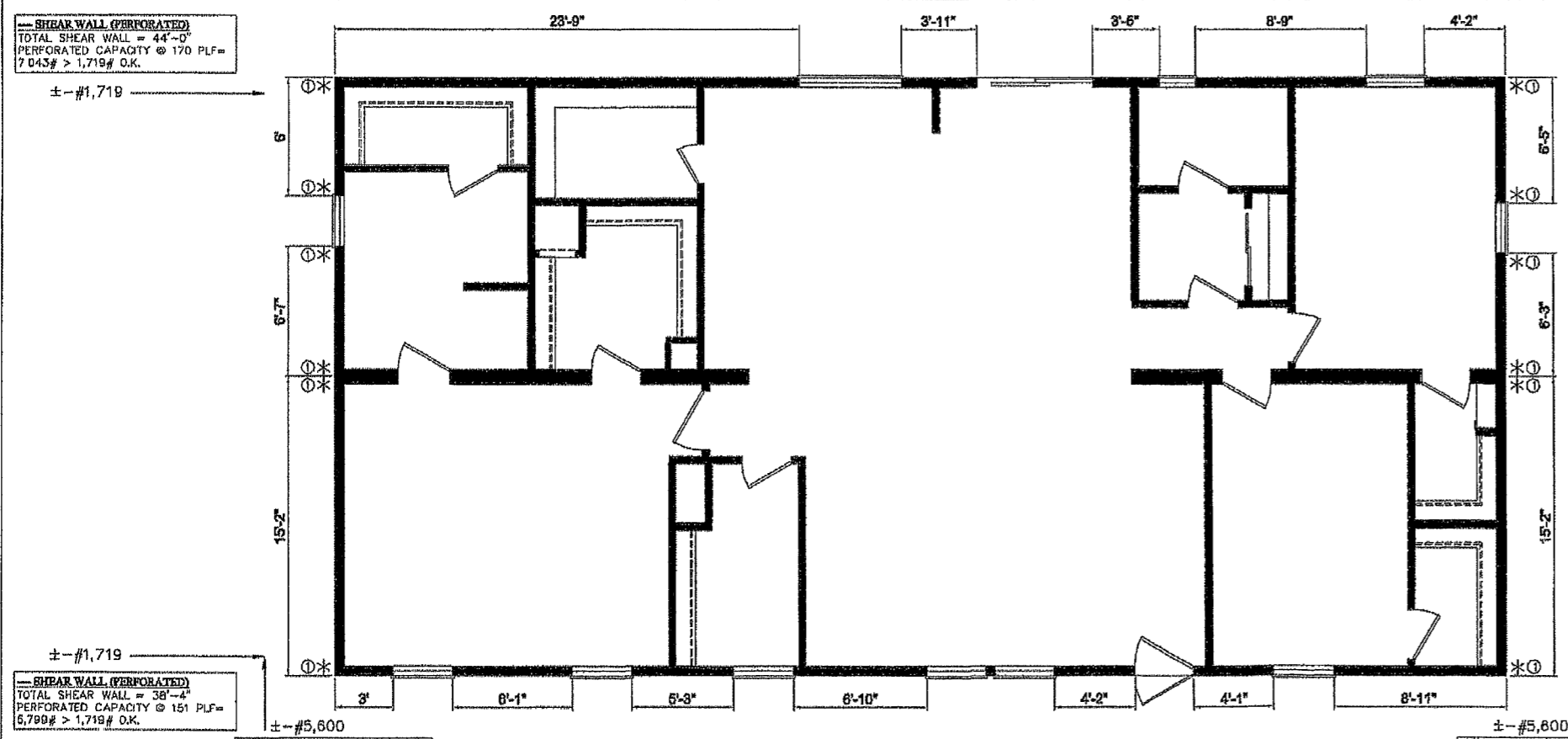
MODEL:
261-C660

DATE: 03-20-13 SCALE:
 DRAWN BY: GCK CHECKED BY:

FILENAME: C660 (130MPH, EXP.C)
 SHEET NO

SW-101
 PAGE: 1 OF 4

PROPRIETARY AND CONFIDENTIAL
 THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL
 PROPERTY AND CONFIDENTIAL MATERIALS OF
 CHAMPION HOME BUILDERS, INC.
 COPYRIGHT © 2012 BY CHAMPION



SHEAR WALL LAYOUT

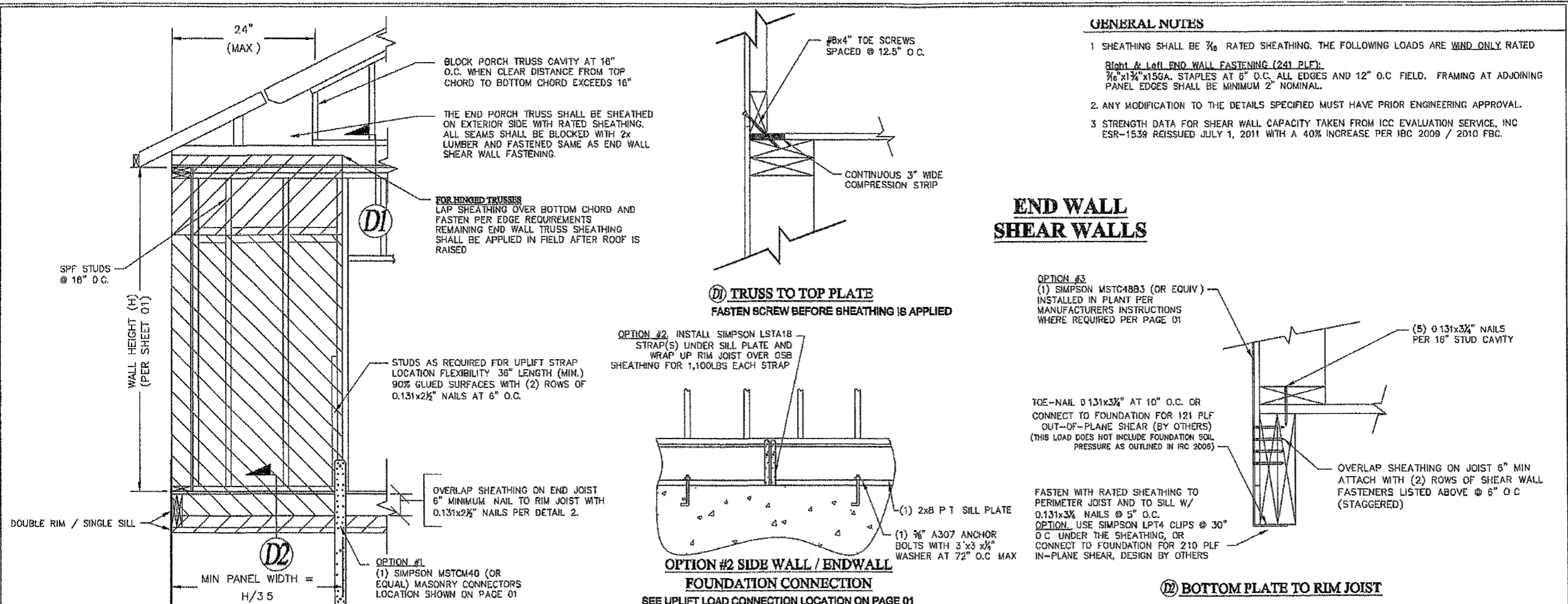
SHEAR WALL	SHEAR WALL CAPACITY
FRONT	241 PLF (6" O.C. EDGE)
REAR	241 PLF (6" O.C. EDGE)
LEFT	241 PLF (6" O.C. EDGE)
RIGHT	241 PLF (6" O.C. EDGE)

THESE ALLOWABLE STRENGTHS INCLUDE A 40% INCREASE WHERE APPLICABLE FOR WIND FORCES PER IBC 2009

- NOTES:**
- SHEAR WALLS SHALL BE CONSTRUCTED OF RATED SHEATHING WITH SPF #2 FRAMING AT 16" O.C. WITH FASTENING AS FOLLOWS:
 - 241 PLE, 15 GA. STAPLES, 6" O.C. AT PANEL EDGES AND 12" O.C. IN FIELD. SEE STANDARD DETAIL PAGE 2 5/8" SHEATHING.

*UPLIFT MARK	SHEAR WALL CAPACITY
①	1,054#

UPLIFT CONNECTION REQUIRED AS INDICATED BY *
 SEE TABLE BELOW FOR UPLIFT VALUES UPLIFT CONNECTION DETAILS PER PAGES 02 & 03.



CHAMPION ENGINEERING

766 W BIG BEAVER ROAD SUITE 1000
 TROY, MI 48064
 PHONE 248-614-8200

ENGINEER'S / APPROVER'S SEAL

PHILLIP J. COPELAND
 LICENSE
 No. 67942
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER

4-17-13

APPROVER'S SEAL

APPROVED
 APR 18 2013
 HILBORN, WERNER, CARTER & ASSOC.

MODIFICATIONS

TITLE:
SHEAR WALL END WALL DETAILS
 MWFRS

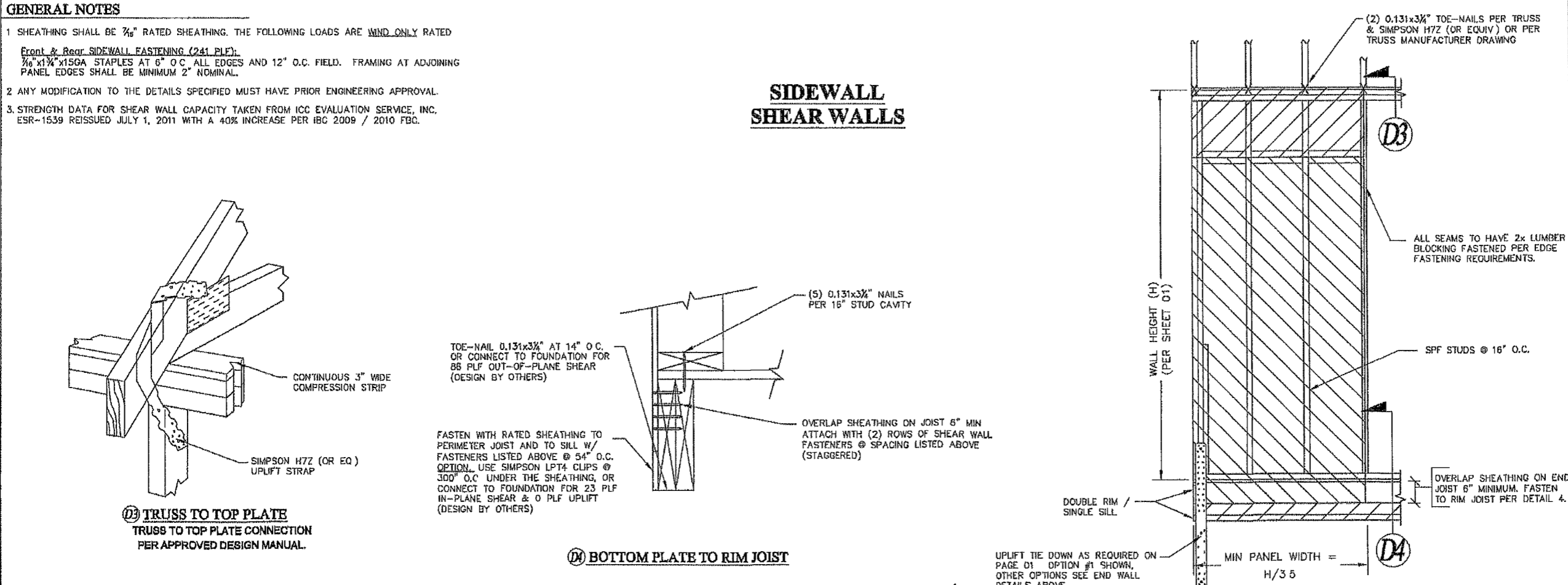
MODEL
261-C660

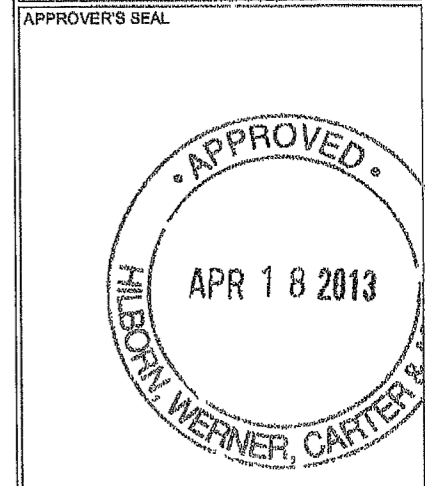
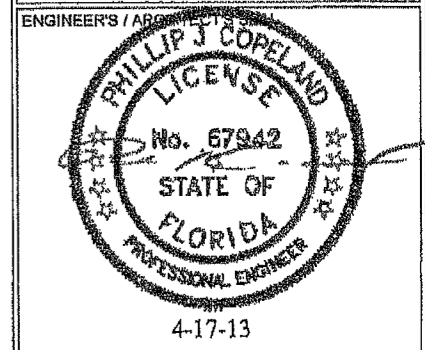
DATE: 03-20-13 SCALE:
 DRAWN BY: GCK CHECKED BY:

FILENAME: C660 (130MPH, EXP C)
 SHEET NO.:
SW-102

PAGE:
2 OF 4

PROPRIETARY AND CONFIDENTIAL
 THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL
 PROPRIETARY AND CONFIDENTIAL MATERIALS OF
 CHAMPION HOME BUILDERS, INC.
 COPYRIGHT ©2012 BY CHAMPION

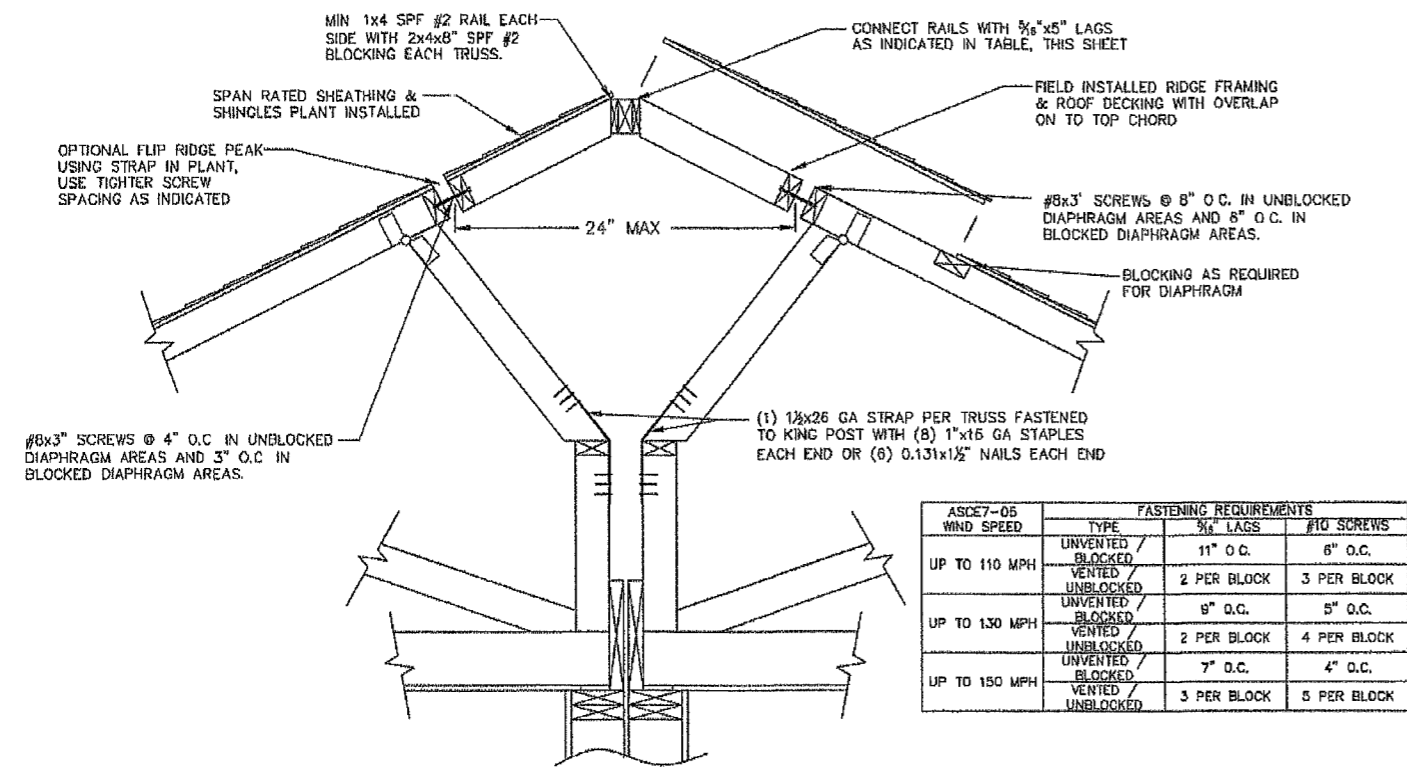




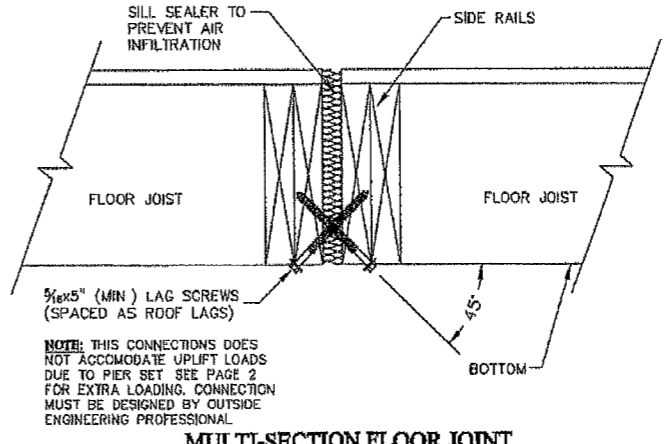
MODIFICATIONS

TITLE: **CONNECTION DETAILS**
MWFRS
MODEL: **261-C660**
DATE: 03-20-13 SCALE:
DRAWN BY: GCK CHECKED BY:
FILENAME: C660 (130MPH, EXP.C)
SHEET NO.: **SW-103**
PAGE: **3 OF 4**

PROPRIETARY AND CONFIDENTIAL. THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL. PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION HOME BUILDERS, INC. COPYRIGHT © 2012 BY CHAMPION



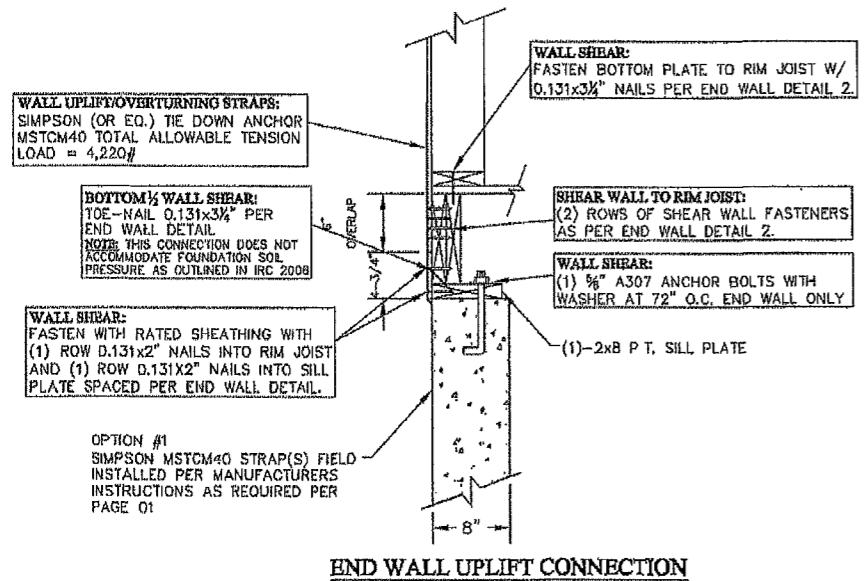
ASCE7-05 WIND SPEED	FASTENING REQUIREMENTS		
	TYPE	5/8" LAGS	#10 SCREWS
UP TO 110 MPH	UNVENTED / BLOCKED	11" O.C.	8" O.C.
	VENTED / UNBLOCKED	2 PER BLOCK	3 PER BLOCK
UP TO 130 MPH	UNVENTED / BLOCKED	9" O.C.	5" O.C.
	VENTED / UNBLOCKED	2 PER BLOCK	4 PER BLOCK
UP TO 150 MPH	UNVENTED / BLOCKED	7" O.C.	4" O.C.
	VENTED / UNBLOCKED	3 PER BLOCK	5 PER BLOCK



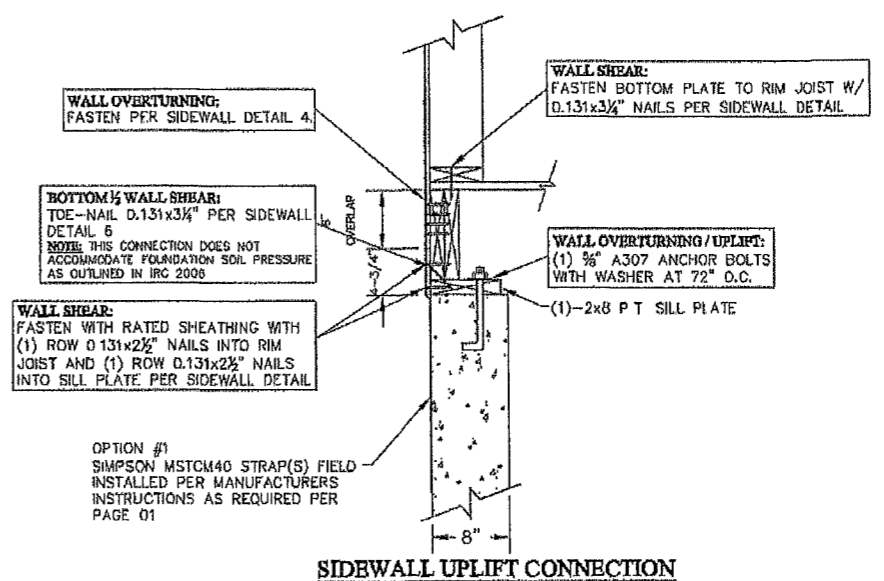
HINGED ROOF CONNECTION WITH RIDGE VENT
(RIDGE VENT MUST NOT OCCUR IN BLOCKED AREAS)

MULTI-SECTION FLOOR JOINT

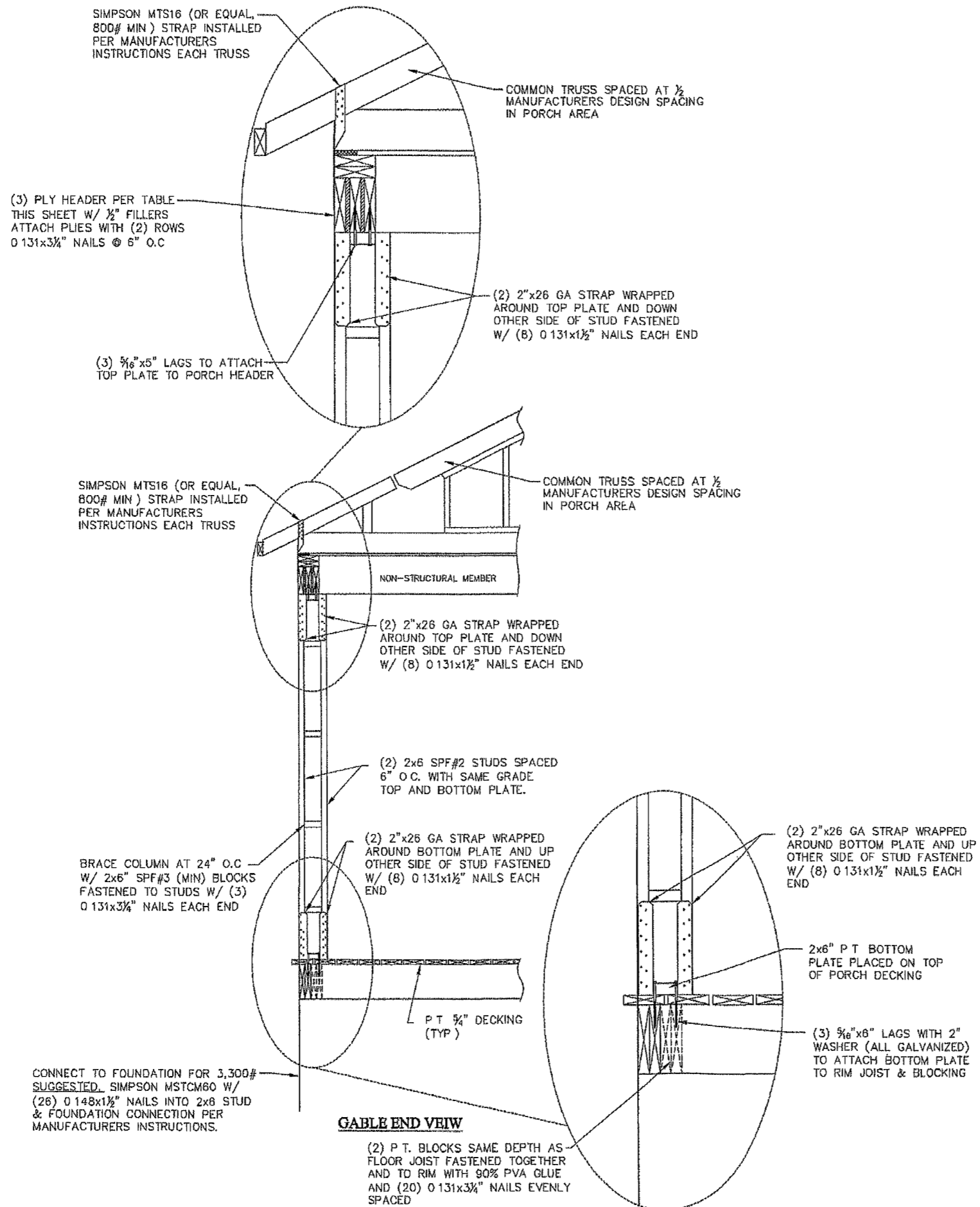
THIS MWFRS PACKAGE ASSUMES A PERIMETER FOUNDATION SET, FOR ALL OTHER FOUNDATION TYPES, DESIGN BY OTHERS.



END WALL UPLIFT CONNECTION

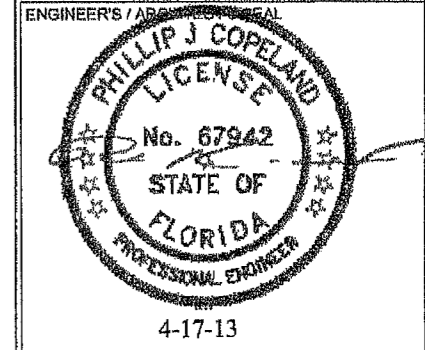


SIDEWALL UPLIFT CONNECTION



CHAMPION ENGINEERING

755 W BIG BEAVER ROAD SUITE 1000
TROY, MI 48064
PHONE 248-614-8200



APPROVER'S SEAL

MODIFICATIONS

TITLE:
HIGH WIND PORCH COLUMN DESIGN
MWFRS

MODEL:
261-C660

DATE 03-20-13 SCALE:
DRAWN BY: GCK CHECKED BY:

FILENAME: C660 (130MPH, EXP C)
SHEET NO

PAGE: **4 OF 4**

PROPRIETARY AND CONFIDENTIAL
THESE DRAWINGS AND SPECIFICATIONS ARE ORIGINAL, PROPRIETARY AND CONFIDENTIAL MATERIALS OF CHAMPION HOME BUILDERS, INC. COPYRIGHT ©2012 BY CHAMPION

3/20/2013

CHAMPION
HOME BUILDERS, INC.

Unblocked, 7/16" Wood Roof Diaphragm

Model: **C660**

Spacing at 6 in. o.c. at diaphragm perimeter, 6 in. o.c. at other panel edges, 12 in. o.c. field

Loading Type	Wind	Code Reference	ESR-1539
Diaphragm Type	Unblocked	Diaphragm Perimeter Spacing	6 in
Sheathing Layout	Case 1	Panel Edge Spacing	6 in
Fastener Type	15 gage staples	Max L/W Ratio	3.1

Minimum 1.75" fastener length

Components & Cladding:	Corner	Fasten at:	5" o.c.	Panel Edges and	5" o.c.	in the field
	Field	Fasten at:	6" o.c.	Panel Edges and	7.5" o.c.	in the field

Roof Diaphragm Data :

Diaphragm Capacity =	273	plf
Reduction Factor =	0.82	for SPF
Max. Allowable Shear =	224	plf

Note: ESR 1539 Values increased 40% per IBC 2009 for wind load only.

Wind Load : ASCE7-10 ASCE7-05

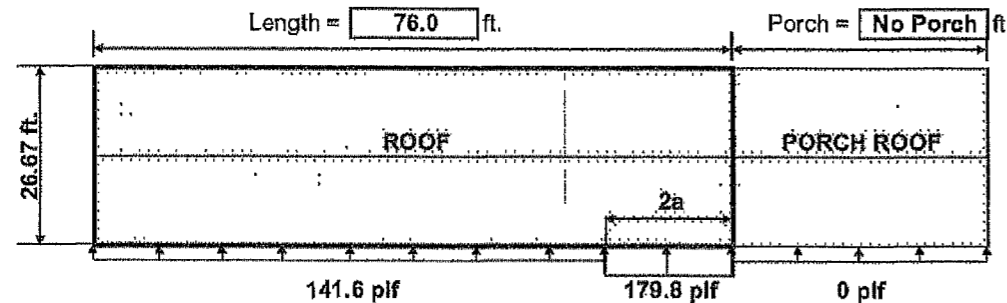
Wind Speed (mph) =	130	103	101
Exposure =	C		
Mean Roof Height =	30.00	ft	
Adjustment Factor =	1.40		
Wall Load (Field) =	20.3	psf	
Wall Load (Edge) =	27.3	psf	
Roof Load (Field) =	7.5	psf	
Roof Load (Edge) =	8.5	psf	

2010 Florida Building Code Vasd

House Layout :

Roof Pitch =	6.0	/12
Overhang, OH =	12	in
Wall Height, H =	108	in
Floor Width, W =	13.33	ft
Number of Boxes =	2	
Length =	76	ft
Porch Pitch =	No Porch	/12
Porch Length =	0	ft

Diaphragm Load (Field) =	141.6	plf
Diaphragm Load (Edge) =	179.8	plf
Porch Load =	0.0	plf
Edge Distance, a =	3.0	ft.
Windward Uplift =	0.0	plf



Diaphragm Shear Load :

Main Roof Shear =	5,600	lbs
Porch Roof Shear =	0	lbs
Allowable Shear =	6,417	lbs

Diaphragm Moment Load :

Diaphragm Chord :	#2	2x4 (SPF)
Actual Moment =	102,565	lb-ft
Allowable Moment =	162,540	lb-ft

Change from Blocked to Unblocked Diaphragm Not Required

Diaphragm Capacity =	273	plf
Max. Shear for Unblocked Diaphragm =	224	plf (for SPF)
Maximum Roof Shear =	5,600	lbs
Length from Blocked to Unblocked =	-4.57	ft (From Roof Edge)

Blocking Not Required

PROPRIETARY AND CONFIDENTIAL
THESE CALCULATIONS AND SPECIFICATIONS ARE ORIGINAL.
PROPRIETARY AND CONFIDENTIAL MATERIALS OF
CHAMPION HOME BUILDERS, INC.
COPYRIGHT © 2011 BY CHAMPION

Roof Diaphragm
1 Story Diaphragms & Shearwalls (ASCE7-10) .xlsx

3/20/2013

CHAMPION
HOME BUILDERS, INC.

Unblocked, 7/16" Wood Roof Diaphragm

Model: **C660**

Spacing at 6 in. o.c. at diaphragm perimeter, 6 in. o.c. at other panel edges, 12 in. o.c. field

Loading Type	Wind	Code Reference	ESR-1539
Diaphragm Type	Unblocked	Diaphragm Perimeter Spacing	6 in
Sheathing Layout	Case 3	Panel Edge Spacing	6 in
Fastener Type	15 gage staples	Max L/W Ratio	3:1

Minimum 1.75" fastener length

Roof Diaphragm Data :

Diaphragm Capacity =	203	plf
Reduction Factor =	0.82	for SPF
Max Shear =	166	plf

Note: ESR 1539 Values increased 40% per IBC 2009 for wind load only.

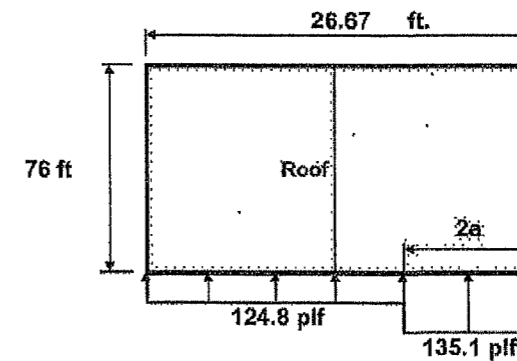
Wind Load : ASCE7-10 ASCE7-05

Wind Speed =	130	103	101
Exposure =	C		
Mean Roof Height =	30.00	ft	
Adjustment Factor =	1.40		
Wall Load (Field) =	14.9	psf	
Wall Load (Edge) =	22.5	psf	

House Layout :

Roof Pitch =	6	/12
Overhang, OH =	12	in
Wall Height, H =	108	in
Floor Width, W =	13.33	ft
Number of floors =	2	
Length =	76	ft

Diaphragm Load (Field) =	124.8	plf
Diaphragm Load (Edge) =	135.1	plf
Windward Uplift =	0.0	plf
Edge Distance, a =	3.0	ft.



Span Calculation :

A. Allowable Shear Load =	12,651	lbs
Maximum Span =	212.6	ft

B. Chord Force =	5,670	lbs	Diaphragm Chord	#2	2x4 (SPF)
Moment due to Chord =	430,920	ft-lbs			
Maximum Span =	166.2	ft			

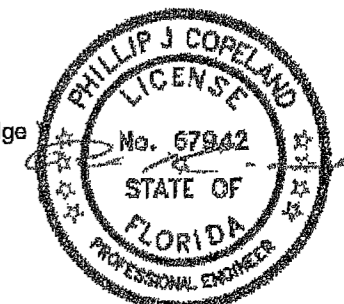
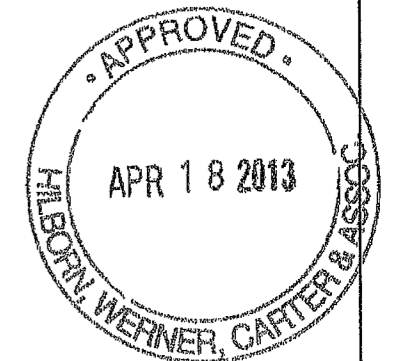
Change from Blocked to Unblocked Diaphragm Not Required

Diaphragm Capacity =	203	plf
Max. Shear for Unblocked Diaphragm =	166	plf (for SPF)
Maximum Reaction =	1,719	lbs
Length from Blocked to Unblocked =	-80.92	ft (From Roof Edge)

Blocking Not Required

PROPRIETARY AND CONFIDENTIAL
THESE CALCULATIONS AND SPECIFICATIONS ARE ORIGINAL.
PROPRIETARY AND CONFIDENTIAL MATERIALS OF
CHAMPION HOME BUILDERS, INC.
COPYRIGHT © 2011 BY CHAMPION

Roof Diaphragm (Endwall)
1-Story Diaphragms & Shearwalls (ASCE7-10).xlsx



4-17-13

7/16" Rated Shearwall at Endwall

Model: C660

Connected by **15** ga Staples spaced @ **6.0** in o.c. (edge), 12 in o.c. (field)
 Loading Type = **Wind**
 Code Reference **ESR-1539**

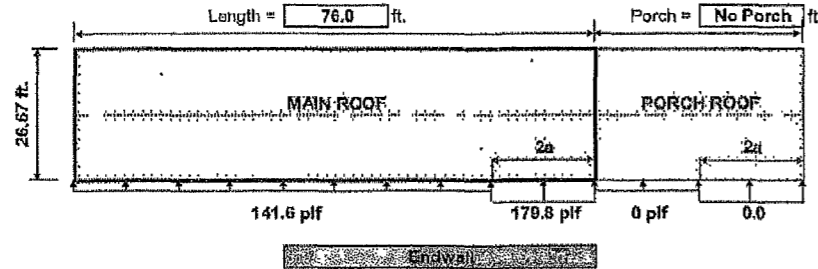
Shearwall Data :

Shearwall Capacity = **294** plf
 Reduction Factor = **0.82** for SPF
 Max. Shear = **241** plf

Note: ESR 1539 Values Increased 40% per IBC 2009 for wind load only.

Components & Cladding

	Edge	Field
Corner	6" o.c.	12" o.c.
Field	6" o.c.	12" o.c.



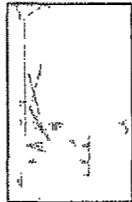
Total Shear at Endwall = 5,600 lbs
 Shear Wall Required = 23.23 ft.
 Available Wall = **27.75** ft.
 Actual Shear Value = 202 plf
 Shear Capacity = **6,690** lbs

Overturning Moment : Anchor Capacity = **4,220** lbs
 Anchor Uplift Force = **4,084** lbs

(1) Simpson (or EQ)
 MSTCM40 @ 4,220#
 tension ea.

Shearwall to Roof Truss Connection:
 (Out of Plane)

Fasteners = #8x4" Toe-Screws (NDS)
 Fastener Capacity = 103.6 lbs/screw
 Shear Load = 98.6 plf
 Fasteners req'd @ **12.5** in oc.

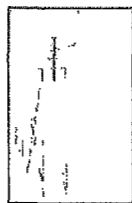


In Plane and Out of Plane Shear Option:

Without OSB overlap (OSB seam at BC of truss)
 Shear Load = 308.6 plf
 Fasteners req'd @ **4.0** in oc.

Bottom Plate to Rim Joist Connection:
 (Out of Plane)

Fasteners = 0 131 x 3.25" Nails (NDS)
 Fastener Capacity = 100.2 lbs/nail
 Shear Load = 101.7 plf
 Nails req'd @ **11.5** in. oc.
 Number per cavity = **3.0** nails

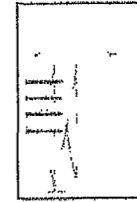


7/16" Rated Shearwall at Endwall
 (2x1 plf Wall)

Model: C660
 ENDWALL

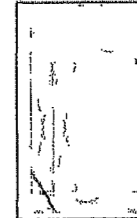
Shear wall to rim joist connection: (ESR-1539)
 (In Plane)

Fastener = 15 Staple Minimum 1 7/8" fastener length
 Fastener Capacity = 102.4 lbs/staple
 Shear Load = 201.8 plf
 Fasteners req'd @ 6.0 in. oc
 use (2) rows **6.0** in oc staggered



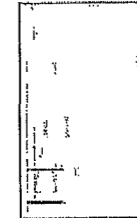
Bottom Half Wall Shear Connection:
 (Out of Plane)

Fastener = 0 131 x 3 25" Toe Nail (ESR-1539)
 Fastener Capacity = 104.9 lbs/nail
 Shear Load = **120.5** plf
 Nails req'd @ **10.0** in oc



Shear Transfer from Rim Joist to Sill Plate: (ESR-1539)
 (In Plane)

Fastener = 15 Staple Minimum 1 7/8" fastener length
 Fastener Capacity = 102.4 lbs/nail
 Lateral Shear Load = **210.0** plf
 Uplift Shear Load = **0.0** plf
 Nails req'd @ **5.0** in oc
 Option: LTP4 Clips = **3.0** in o.c.

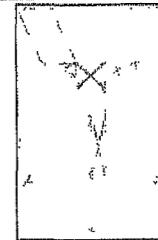


Roof Joint Connection: (NDS)

Angle = 45 deg.
 Angle = 0.7854 rad
 Shear Capacity = **518** lbs/bolt
 Withdrawal Capacity = 440 lbs/bolt
 Combined Capacity = **309.7** lbs/bolt
 Shear Capacity = 131 lbs/bolt
 Withdrawal Capacity = 204 lbs/bolt
 Combined Capacity = **131.5** lbs/bolt

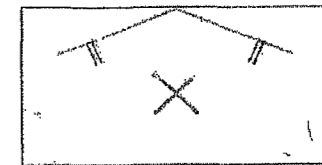
Roof Uplift Connection:

Uplift = 12.2 plf
 Roof Trib = 178.89 in.
 Moment = 1084 lbs-ft
 Tension Force = 66.0 plf
 Spacing = **36** in o.c. Alternating Sides
 #10 Screws
 Spacing = **23** in o.c. Alternating Sides



Roof Shear Load Connection From Diaphragm: (ESR-1539)

Connect 26 Ga. Metal Strip with 15 Ga Staples
 Total Load across Joint = 211 plf
 Capacity Parallel to Grain = 92 lbs/staple
 Spacing = **5** in o.c.

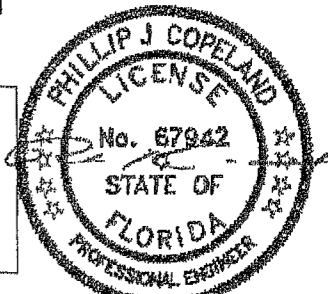


Screw Option: (no metal strip required) (NDS)

Connect With = #10 x 4" Screws
 Total Load across Joint = 211 plf
 Capacity Parallel to Grain = 145 lbs/screw
 Spacing = **8** in o.c.

Anchor Bolt Shear: (NDS)

Number of Sill Plates = **1**
 Fastener = **5/8** in dia Anchor Bolt
 Shear Parallel to Grain = 210.0 plf
 Shear Perpendicular to Grain = 120.5 plf
 Capacity Parallel to Grain = 1552 lbs/bolt
 Capacity Perpendicular to Grain = 926 lbs/bolt
 Spacing = **72** in. oc.



7/16" Rated Shearwall at Endwall

Model: C660

Connected by 15 ga Staples spaced @ 6.0 in o.c. (edge), 12 in. o.c. (field)
 Loading Type = Wind
 Code Reference = ESR-1539

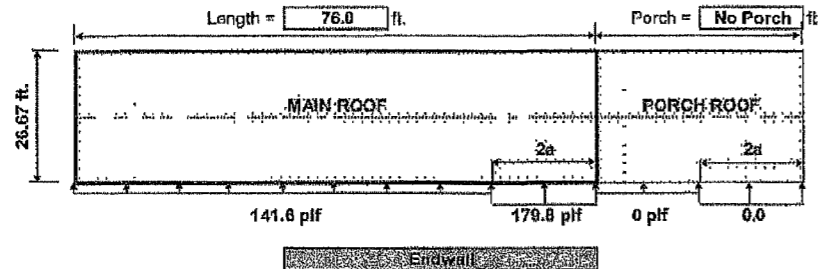
Shearwall Data :

Shearwall Capacity = 294 plf
 Reduction Factor = 0.82 for SPF
 Max Shear = 241 plf

Components & Cladding

	Edge	Field
Corner	6" o.c.	12" o.c.
Field	6" o.c.	12" o.c.

Note: ESR-1539 Values Increased 40% per IBC 2009 for wind load only.



Total Shear at Endwall = 5,600 lbs
 Shear Wall Required = 23.23 ft.
 Available Wall = 27.75 ft.
 Actual Shear Value = 202 plf
 Shear Capacity = 1,600 lbs

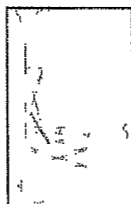
Overturning Moment :

Anchor Capacity = 4,220 lbs
 Anchor Uplift Force = 1,084 lbs

(1) Simpson (or EQ)
 MSTCM40 @ 4,220#
 tension ea

Shearwall to Roof Truss Connection:
 (Out of Plane)

Fasteners = #8x4" Toe-Screws (NDS)
 Fastener Capacity = 103.6 lbs/screw
 Shear Load = 98.6 plf
 Fasteners req'd @ 12.5 in oc.



In Plane and Out of Plane Shear Option:

Without OSB overlap (OSB seam at BC of truss)
 Shear Load = 309.6 plf
 Fasteners req'd @ 4.0 in oc.

Bottom Plate to Rim Joist Connection:
 (Out of Plane)

Fasteners = 0 131 x 3.25" Nails (NDS)
 Fastener Capacity = 100.2 lbs/nail
 Shear Load = 101.7 plf
 Nails req'd @ 11.5 in. oc.
 Number per cavity = 3.0 nails



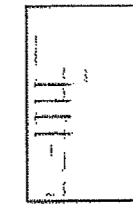
7/16" Rated Shearwall at Endwall
 (241 plf Wall)

Model: C660
 ENDWALL2

Shear wall to rim joist connection: (ESR-1539)
 (In Plane)

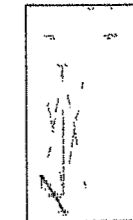
Fastener = 15 Staple Minimum 1 7/8" fastener length
 Fastener Capacity = 102.4 lbs/staple
 Shear Load = 201.8 plf
 Fasteners req'd @ 6.0 in oc.

use (2) rows 6.0 in oc staggered



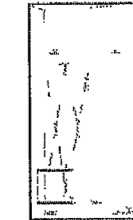
Bottom Half Wall Shear Connection:
 (Out of Plane)

Fastener = 0.131 x 3 25" Toe Nail (ESR-1539)
 Fastener Capacity = 104.9 lbs/nail
 Shear Load = 120.5 plf
 Nails req'd @ 10.0 in oc.



Shear Transfer from Rim Joist to Sill Plate: (ESR-1539)
 (In Plane)

Fastener = 15 Staple Minimum 1 7/8" fastener length
 Fastener Capacity = 102.4 lbs/nail
 Lateral Shear Load = 210.0 plf
 Uplift Shear Load = 0.0 plf
 Nails req'd @ 5.0 in oc.



Roof Joint Connection: (NDS)

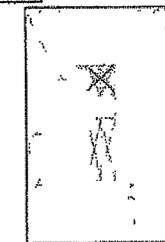
5/16" Lag Bolt
 Shear Capacity = 239 lbs/bolt
 Withdrawal Capacity = 440 lbs/bolt
 Combined Capacity = 309.7 lbs/bolt

Angle = 45 deg.
 Angle = 0.7854 rad.
 #10 Screws
 Shear Capacity = 134 lbs/bolt
 Withdrawal Capacity = 204 lbs/bolt
 Combined Capacity = 131.5 lbs/bolt

Roof Uplift Connection:

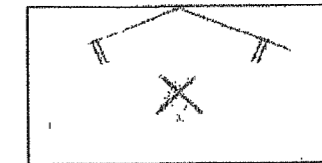
Uplift = 12.2 plf
 Roof Trib = 178.89 in.
 Moment = 1084 lbs-ft
 Tension Force = 66.0 plf

Lags
 Spacing = 36 in o.c.
 Alternating Sides
 #10 Screws
 Spacing = 23 in o.c.
 Alternating Sides



Roof Shear Load Connection: From Diaphragm (ESR-1539)
 Connect 28 Ga. Metal Strip with 15 Ga Staples

Total Load across Joint = 211 plf
 Capacity Parallel to Grain = 92 lbs/staple
 Spacing = 5 in o.c.

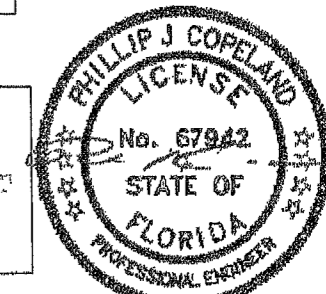
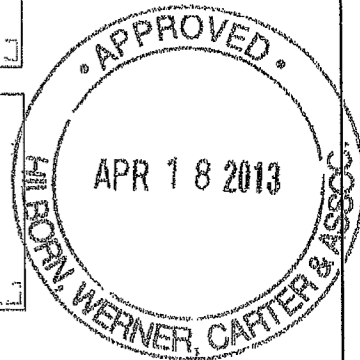


Screw Option: (no metal strip required) (NDS)

Connect With = #10 x 4" Screws
 Total Load across Joint = 211 plf
 Capacity Parallel to Grain = 145 lbs/screw
 Spacing = 8 in o.c.

Anchor Bolt Shear: (NDS)

Number of Sill Plates = 1
 Fastener = 5/8 in dia. Anchor Bolt
 Shear Parallel to Grain = 210.0 plf
 Shear Perpendicular to Grain = 120.5 plf
 Capacity Parallel to Grain = 1552 lbs/bolt
 Capacity Perpendicular to Grain = 928 lbs/bolt
 Spacing = 72 in oc



3/20/2013

CHAMPION
HOME BUILDERS, INC.

7/16 in. Thick Rated Shear Wall

Model: **C660**
SIDEWALL

Connected by: **15** ga. Staples @ **6** in o.c. (edge), 12 in o.c. (field)
Minimum 1 7/8" fastener length
Loading Type = **Wind** Loading Factor = **1.4**

Shearwall Data:

Shearwall Capacity = **294** pif
Reduction Factor = **0.82** for SPF
Maximum Shear = **241** pif (for SPF)

Components & Cladding

	Edge	Field
Corner	6" o.c.	12" o.c.
Field	6" o.c.	12" o.c.

Wall Height, H = **108** in

Wall Segment Lengths

	ft	in	ft	h/bs	% Capacity	Strength (pif)
1	23	9	23.75	0.38	100%	241
2	3	11	3.92	2.30	100%	241
3	3	5	3.42	2.63	100%	241
4	6	9	8.75	1.03	100%	241
5	4	2	4.17	2.16	100%	241
6			0.00	0.00	0%	241
7			0.00	0.00	0%	241
8			0.00	0.00	0%	241
			44.00			241

Total Shear @ Wall = **1,719** lbs
Actual Shear Wall Segment Lengths = **44.00** ft.
Perforated Shear Wall Length = **76.00** ft.
Actual Shear Value = **58.8** pif.

Percent Full Height Sheathing

Lower Bound = **0.58**
Upper Bound = **0.60**

Maximum Opening Height

Lower Bound = **0.74**
Upper Bound = **0.83**

	1/3 h	1/2 h	2/3 h	5/8 h	1 h
10%	1.00	0.69	0.53	0.43	0.38
20%	1.00	0.71	0.56	0.45	0.38
30%	1.00	0.74	0.59	0.49	0.42
40%	1.00	0.77	0.63	0.53	0.45
50%	1.00	0.80	0.67	0.57	0.50
60%	1.00	0.83	0.71	0.63	0.56
70%	1.00	0.87	0.77	0.69	0.63
80%	1.00	0.91	0.83	0.77	0.71
90%	1.00	0.95	0.91	0.87	0.83
100%	1.00	1.00	1.00	1.00	1.00

Co = **0.66**
Perforated Capacity = **160** pif
Allowable Shear Force = **7043** lbs
Anchor Uplift Force = **0** lbs

PROPRIETARY AND CONFIDENTIAL
THESE CALCULATIONS AND SPECIFICATIONS ARE ORIGINAL,
PROPRIETARY AND CONFIDENTIAL MATERIALS OF
CHAMPION HOME BUILDERS, INC.
COPYRIGHT © 2011 BY CHAMPION

Perforated (Sidewall)
1-Story Diaphragms & Shearwalls (ASCE7-10).xlsx

3/20/2013

CHAMPION
HOME BUILDERS, INC.

7/16 in. Thick Rated Shear Wall
(218 pif Wall)

Model: **C660**
SIDEWALL

Roof Truss to Top Plate Connection:

Fasteners = **0** 131 x 3.25" Toe Nails (NDS)
Fastener Capacity = **108.9** lbs/nail
Parallel Shear Load = **22.6** pif
Perpendicular Shear Load = **69.8** pif
No. of nails req'd = **2** per truss



Bottom Plate to Rim Joist Connection:

Fasteners = **0** 131 x 3.25" Nails (NDS)
Fastener Capacity = **100.2** lbs/nail
Shear Load = **82.1** pif
Nails req'd @ **14.5** in oc
Nails req'd @ **3** per stud cavity



Bottom Half Wall Shear Connection:

(Out of Plane)

Fastener = **0** 131 x 3.25" Toe Nail (ESR-1539)
Fastener Capacity = **104.9** lbs/nail
Shear Load = **85.4** pif
Nails req'd @ **14.0** in oc.



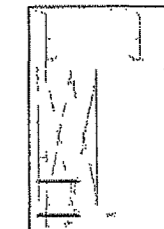
Shear Transfer from Rim Joist to Sill Plate:

ESR-1539

Fastener = **15** Staple
Fastener Capacity = **102.4** lbs/each
Lateral Shear Load = **22.6** pif
Uplift Shear Load = **0.0** pif
Nails req'd @ **54.0** in oc.

Minimum 1 7/8" fastener length

Option LTP4 Clips = **300.0** in oc

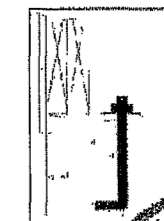


Anchor Bolt Shear and Uplift:

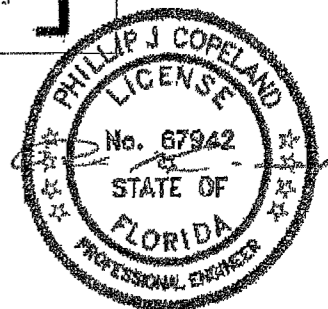
(NDS)

of Sill Plates = **1**
Fastener = **5/8** in dia Anchor Bolt
Shear Parallel to Grain = **22.6** pif
Shear Perpendicular to Grain = **85.4** pif
Capacity Parallel to Grain = **1552** lbs/bolt
Capacity Perpendicular to Grain = **928** lbs/bolt
Required Shear Spacing = **72** in oc.

(NDS Table 11E SPF)
(NDS Table 11E SPF)



Uplift = **0.0** pif
Washer Area = **2.03** in²
Cb = **1.21**
Fcp = **425** psi
Anchor Bolt Uplift Capacity = **1050** lbs/bolt
Required Uplift Spacing = **N/A** in oc.



PROPRIETARY AND CONFIDENTIAL
THESE CALCULATIONS AND SPECIFICATIONS ARE ORIGINAL,
PROPRIETARY AND CONFIDENTIAL MATERIALS OF
CHAMPION HOME BUILDERS, INC.
COPYRIGHT © 2011 BY CHAMPION

4-17-13
Perforated (Sidewall)
1-Story Diaphragms & Shearwalls (ASCE7-10).xlsx

3/20/2013

CHAMPION
HOME BUILDERS, INC.

7/16 in. Thick Rated Shear Wall

Model: C660
SIDEWALLS

Connected by: 15 ga Staples @ 6 in o.c. (edge), 12 in o.c. (field)
Minimum 1 7/8" fastener length
Loading Type = Wind Loading Factor = 1.4

Shearwall Data:
Shearwall Capacity = 294 plf ESR-1539
Reduction Factor = 0.82 for SPF
Maximum Shear = 241 plf (for SPF)

Components & Cladding

	Edge	Field
Corner	6" o.c.	12" o.c.
Field	6" o.c.	12" o.c.

Wall Height, H = 10.0 in

Wall Segment Lengths

	ft	in	ft	h/bs	% Capacity	Strength (plf)
1	3	0	3.00	3.00	100%	241
2	6	1	6.08	1.48	100%	241
3	5	3	5.25	1.71	100%	241
4	6	10	6.83	1.32	100%	241
5	4	2	4.17	2.16	100%	241
6	4	1	4.08	2.20	100%	241
7	8	11	8.92	1.01	100%	241
8			0.00	0.00	0%	241
			38.33			241

Total Shear @ Wall = 1,719 lbs
Actual Shear Wall Segment Lengths = 38.33 ft
Perforated Shear Wall Length = 76.00 ft
Actual Shear Value = 71.4 plf

Percent Full Height Sheathing

Lower Bound = 0.60
Upper Bound = 0.60

Maximum Opening Height

Lower Bound = 0.74
Upper Bound = 0.83

	1/3 h	1/2 h	2/3 h	5/6 h	1 h
10%	1.00	0.69	0.53	0.43	0.36
20%	1.00	0.71	0.56	0.45	0.38
30%	1.00	0.74	0.59	0.49	0.42
40%	1.00	0.77	0.63	0.53	0.45
50%	1.00	0.80	0.67	0.57	0.50
60%	1.00	0.83	0.71	0.63	0.56
70%	1.00	0.87	0.77	0.69	0.63
80%	1.00	0.91	0.83	0.77	0.71
90%	1.00	0.95	0.91	0.87	0.83
100%	1.00	1.00	1.00	1.00	1.00

Co = 0.63
Perforated Capacity = 151 plf
Allowable Shear Force = 5799 lbs
Anchor Uplift Force = 0 lbs

PROPRIETARY AND CONFIDENTIAL
THESE CALCULATIONS AND SPECIFICATIONS ARE ORIGINAL,
PROPRIETARY AND CONFIDENTIAL MATERIALS OF
CHAMPION HOME BUILDERS, INC.
COPYRIGHT © 2011 BY CHAMPION

Perforated (Sidewall2)
1-Story Diaphragms & Shearwalls (ASCE7-10).xlsx

3/20/2013

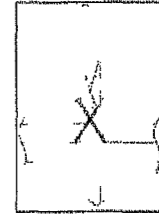
CHAMPION
HOME BUILDERS, INC.

7/16 in. Thick Rated Shear Wall
(218 plf Wall)

Model: C660
SIDEWALL2

Roof Truss to Top Plate Connection:

Fasteners = 0.131 x 3.25" Toe Nails (NDS)
Fastener Capacity = 108.9 lbs/nail
Parallel Shear Load = 22.6 plf
Perpendicular Shear Load = 69.8 plf
No. of nails req'd = 2 per truss



Bottom Plate to Rim Joist Connection:

Fasteners = 0.131 x 3.25" Nails (NDS)
Fastener Capacity = 100.2 lbs/nail
Shear Load = 82.1 plf
Nails req'd @ 14.5 in. oc
Nails req'd @ 3 per stud cavity



Bottom Half Wall Shear Connection:
(Out of Plane)

Fastener = 0.131 x 3.25" Toe Nail (ESR-1539)
Fastener Capacity = 104.9 lbs/nail
Shear Load = 85.4 plf
Nails req'd @ 14.0 in oc

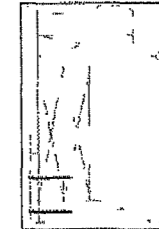


Shear Transfer from Rim Joist to Sill Plate:

ESR-1539

Fastener = 15 Staple
Fastener Capacity = 102.4 lbs/each
Lateral Shear Load = 22.6 plf
Uplift Shear Load = 0.0 plf
Nails req'd @ 54.0 in oc

Minimum 1 7/8" fastener length

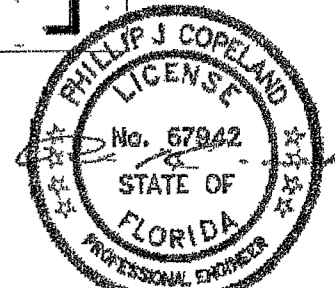
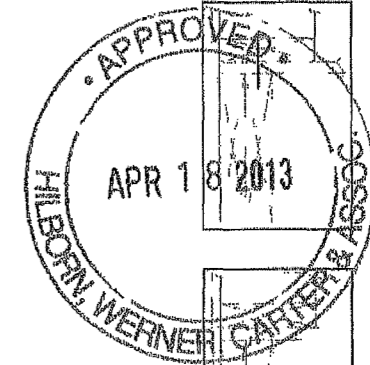
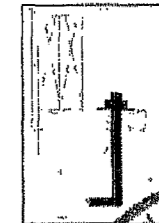


Option LTP4 Clips = 300.0 in oc

Anchor Bolt Shear and Uplift: (NDS)

of Sill Plates = 1
Fastener = 5/8 in dia Anchor Bolt
Shear Parallel to Grain = 22.6 plf
Shear Perpendicular to Grain = 85.4 plf
Capacity Parallel to Grain = 1562 lbs/bolt
Capacity Perpendicular to Grain = 928 lbs/bolt
Required Shear Spacing = 72 in oc
Uplift = 0.0 plf
Washer Area = 2.03 in²
Cb = 1.21
Fcp = 425 psi
Anchor Bolt Uplift Capacity = 1050 lbs/bolt
Required Uplift Spacing = N/A in oc

(NDS Table 11E SPF)
(NDS Table 11E SPF)



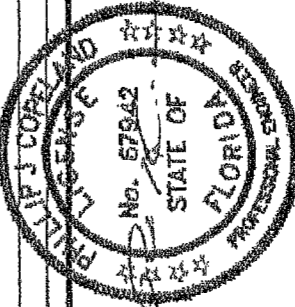
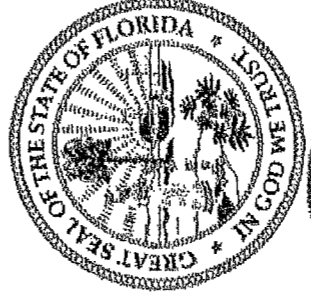
PROPRIETARY AND CONFIDENTIAL
THESE CALCULATIONS AND SPECIFICATIONS ARE ORIGINAL,
PROPRIETARY AND CONFIDENTIAL MATERIALS OF
CHAMPION HOME BUILDERS, INC.
COPYRIGHT © 2011 BY CHAMPION

4-17-13
Perforated (Sidewall2)
1-Story Diaphragms & Shearwalls (ASCE7-10).xlsx

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

<p>Project Name: 2425-0329F C660 Street: Fort White, FL, City, State, Zip: FL, Gainesville Owner: Design Location:</p>	<p>Builder Name: CHAMPION HOME BUILDERS Permit Office: Permit Number: Jurisdiction:</p>	<p>1. New construction or existing 2. Single family or multiple family 3. Number of units, if multiple family 4. Number of Bedrooms 5. Is this a worst case? 6. Conditioned floor area above grade (ft²) Conditioned floor area below grade (ft²) 7. Windows (188.3 sqft.) a. U-Factor: DBI, U=0.35 SHGC=0.30 b. U-Factor: DBI, U=0.35 SHGC=0.40 c. U-Factor: N/A SHGC: d. U-Factor: N/A SHGC: Area Weighted Average Overhang Depth: 1.000 ft. Area Weighted Average SHGC: 0.304 8. Floor Types (1820.0 sqft.) a. Crawlspace b. N/A c. N/A</p>	<p>New (From Plans) Single-family 1 3 Yes 1820 0 Area 180.00 ft² 8.33 ft² ft² ft² 1,000 ft. 0.304 Area 1820.00 ft² ft² ft²</p>
<p>Builder Name: CHAMPION HOME BUILDERS Permit Office: Permit Number: Jurisdiction:</p>		<p>9. Wall Types (1826.0 sqft.) a. Frame - Wood, Exterior b. N/A c. N/A d. N/A 10. Ceiling Types (1820.0 sqft.) a. Under Attic (Vented) b. N/A c. N/A 11. Ducts a. Sup: Exterior, Ret Exterior, AH Exterior R= 6 SEER: 13.00 Efficiency HSPF: 7.70 Cap: 50 gallons EF: 0.920 P-stat</p>	
<p>Glass/Floor Area: 0.103 Total Proposed Modified Loads: 37.51 Total Standard Reference Loads: 51.43</p>		<p>PASS</p>	
<p>I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>Arnold Howard</u> DATE: <u>04/02/13</u></p> <p>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: DATE:</p>		<p>Review of the plans and calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.</p> <p>BUILDING OFFICIAL: DATE:</p>	



- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist
 Date: _____ Plan No. _____
 Approved By: SCOTT S. FRANCIS

SEE MANUFACTURER'S CONTRACT WITH FLORIDA DCA.

Scott S. Francis
 Modular Building Plans Examiner
 No. 57942
 State of Florida
 Professional Engineer

PROJECT

Title:	2425-0329F C660	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1820	Lot #	
Owner:		Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	Yes	PlotBook:	
Builder Name:	CHAMPION HOME BUILDER	Rotate Angle:	0	Street:	Gilchrist
Permit Office:		Cross Ventilation:		County:	Fort White,
Jurisdiction:		Whole House Fan:		City, State, Zip:	FL,
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	IECC Zone	Design Temp	Int Design Temp	Heating Degree Days	Design Daily Temp Range
---	FL Gainesville	FL_GAINESVILLE_REGI	2	92	70	1305.5	51 Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1820	16380

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1820	16380	Yes	4	3	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Exposed Perim Ins. R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet	
---	1	Crawlspace	Main	180 ft	0	1820 ft²	11	0.1	0.1	0.8

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absot.	SA Tested	Emit Test	Deck Insul	Pitch (deg)
---	1	Gable or shed	Composition shingles	2035 ft²	456 ft²	Medium	0.75	No	0.9	No	0 26.5

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
---	1	Full attic	Vented	300	1820 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frao	Truss Type
---	1	Under Attic (Vented)	Main	36	1820 ft²	0.11	Wood

PROJECT

Title: 2425-0329F C660
 Building Type: User
 Owner: User
 # of Units: 1
 Builder Name: CHAMPION HOME BUILDER
 Permit Office: CHAMPION HOME BUILDER
 Jurisdiction: CHAMPION HOME BUILDER
 Family Type: Single-family
 New/Existing: New (From Plans)
 Comment:

Bedrooms: 3
 Conditioned Area: 1820
 Total Stories: 1
 Worst Case: Yes
 Rotate Angle: 0
 Cross Ventilation: Whole House Fan

Address Type: Street Address
 Lot #
 Block/SubDivision:
 PlatBook:
 Street:
 County: Gilchrist
 City, State Zip: Fort White, FL,

CLIMATE

Design Location TMY Site IECC Zone Design Temp Int Design Temp Heating Design Daily Temp
 FL, Gainesville FL_GAINESVILLE_REGI 2 32 92 70 75 1305.5 51 Medium
 IECC Design Temp Int Design Temp Heating Design Daily Temp
 Zone 97.5 % 2.5 % Winter Summer Degree Days Moisture Range

BLOCKS

Number	Name	Area	Volume
1	Block1	1820	16380

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1820	16380	Yes	4	3	1	Yes	Yes	Yes

FLOORS

#	Floor Type	Space	Exposed Per/Wall Ins.	R-Value	Area	Floor Joist R-Value	Tile	Wood	Carpet
1	Crawlspace	Main	180 ft	0	1820 ft²	11	0.1	0.1	0.8

ROOF

#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emit Tested	Deck Insul.	Pitch (deg)
1	Gable or shed	Composition shingles	2035 ft²	456 ft²	Medium	0.75	No	0.9	No	0

ATTIC

#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
1	Full attic	Vented	300	1820 ft²	N	N

CEILING

#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
1	Under Attic (Vented)	Main	38	1820 ft²	0.11	Wood

WALLS													
√ #	Omt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft.	Height Ft.	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%	
1	N	Exterior	Frame - Wood	Main	19	30	4	273 ft²	0.23	0.23	0.75	0	
2	S	Exterior	Frame - Wood	Main	19	30	4	273 ft²	0.23	0.23	0.75	0	
3	E	Exterior	Frame - Wood	Main	19	60	0	540 ft²	0.23	0.23	0.75	0	
4	W	Exterior	Frame - Wood	Main	19	60	0	540 ft²	0.23	0.23	0.75	0	

DOORS									
√ #	Omt	Door Type	Space	Storms	U-Value	Width Ft.	Height Ft.	Area	
1	W	Insulated	Main	Metal	0.460000	3	6	20 ft²	

WINDOWS													
Orientation shown is the entered orientation (=>) changed to Worst Case.													
Overhang													
√ #	Omt	Wall ID	Frame	Panels	NFRC	U-Factor	SHGC	Area	Depth	Separation	Int Shade	Screening	
1	W	4	Vinyl	Low-E Double	Yes	0.35	0.3	90 ft²	1 ft 0 in	2 ft 4 in	Drapes/blinds	None	
2	E	3	Vinyl	Low-E Double	Yes	0.35	0.3	15 ft²	1 ft 0 in	2 ft 4 in	Drapes/blinds	None	
3	E	3	Vinyl	Low-E Double	Yes	0.35	0.3	7 ft²	1 ft 0 in	2 ft 4 in	Drapes/blinds	None	
4	E	3	Vinyl	Low-E Double	Yes	0.35	0.3	15.5 ft²	1 ft 0 in	3 ft 4 in	Drapes/blinds	None	
5	E	3	Vinyl	Low-E Double	Yes	0.35	0.3	40 ft²	1 ft 0 in	2 ft 4 in	Drapes/blinds	None	
6	S	2	Vinyl	Low-E Double	Yes	0.35	0.3	12.5 ft²	1 ft 0 in	4 ft 4 in	Drapes/blinds	None	
7	N	1	Vinyl	Double (Tinted)	Yes	0.35	0.4	8.333333	1 ft 0 in	3 ft 4 in	Drapes/blinds	None	

INFILTRATION									
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH	ACH 50
1	Wholehouse	Best Guess	0.000500	2386.9	131.04	246.44	0.3850	0.3850	8.7433

HEATING SYSTEM									
√ #	System Type	Subtype	Efficiency	Capacity	Block	Ducts			
1	Electric Heat Pump	None	HSPF: 7.7	30 kBtu/hr	1	sys#1			

COOLING SYSTEM									
√ #	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts	
1	Central Unit	None	SEER: 13	30 kBtu/hr	900 cfm	0.75	1	sys#1	

HOT WATER SYSTEM									
√ #	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation	
1	Electric	None	Main	0.92	50 gal	60 gal	120 deg	None	

SOLAR HOT WATER SYSTEM

<input checked="" type="checkbox"/>	FSEC Cert. #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
---	None	None			ft ²		

DUCTS

<input checked="" type="checkbox"/>	#	Location	Supply --- R-Value	Area	Return --- Area	Air Handler CFM 25	Percent Leakage	QIN	RLF	HVAC #
---	1	Exterior	6	286 ft ²	98.7 ft ²	Exterior	(Default) (Default) %			1 1

TEMPERATURES

Programable Thermostat: Y												
Ceiling Fans:												
Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
Thermostat Schedule: HERS 2006 Reference												
Schedule Type	1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM 78	PM 80	78	78	78	78	78	78	78	80	80	80
Cooling (WEH)	AM 78	PM 78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM 66	PM 68	66	66	66	66	66	66	66	66	66	66
Heating (WEH)	AM 66	PM 68	66	66	66	66	66	66	66	66	66	66

MECHANICAL VENTILATION

Type	Supply CFM	Exhaust CFM	Fan Watts	HRV	Heating System	Run Time	Cooling System
None	0	0	0	0	1 - Electric Heat Pump	0%	1 - Central Unit

FORM 405-10

Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations
Residential Whole Building Performance Method

ADDRESS: Fort White, FL,	PERMIT #:
-----------------------------	-----------

MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	
Ducts	403.2.2	All ducts air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code.	
	403.3.3	Building framing cavities shall not be used as supply ducts.	
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	
Cooling/heating equipment	403.6	Sizing calculation performed & attached Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	
Ceilings/knee walls	405.2.1	R-19 space permitting.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 73

The lower the EnergyPerformance Index, the more efficient the home.

, Fort White, FL,

<p>1. New construction or existing</p> <p>2. Single family or multiple family</p> <p>3. Number of units, if multiple family</p> <p>4. Number of Bedrooms</p> <p>5. Is this a worst case?</p> <p>6. Conditioned floor area (ft²)</p> <p>7. Windows**</p> <p style="margin-left: 20px;">a. U-Factor: SHGC=0.30</p> <p style="margin-left: 20px;">b. U-Factor: SHGC=0.40</p> <p style="margin-left: 20px;">c. U-Factor: SHGC:</p> <p style="margin-left: 20px;">d. U-Factor: SHGC:</p> <p style="margin-left: 20px;">SHGC:</p> <p>Area Weighted Average Overhang Depth.</p> <p>Area Weighted Average SHGC:</p> <p>8. Floor Types</p> <p style="margin-left: 20px;">a. Crawlspace</p> <p style="margin-left: 20px;">b. N/A</p> <p style="margin-left: 20px;">c. N/A</p>	<p>New (From Plans)</p> <p>Single-family</p> <p>1</p> <p>3</p> <p>Yes</p> <p>1820</p> <p>Description</p> <p>DbI, U=0.35</p> <p>SHGC=0.30</p> <p>DbI, U=0.35</p> <p>SHGC=0.40</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>1,000 ft.</p> <p>0.304</p> <p>Insulation</p> <p>R=11.0</p> <p>R=</p> <p>R=</p> <p>Area</p> <p>1820.00 ft²</p> <p>ft²</p> <p>ft²</p> <p>ft²</p> <p>ft²</p> <p>ft²</p> <p>Area</p> <p>1820.00 ft²</p> <p>0.304</p>	<p>9. Wall Types</p> <p style="margin-left: 20px;">a. Frame - Wood, Exterior</p> <p style="margin-left: 20px;">b. N/A</p> <p style="margin-left: 20px;">c. N/A</p> <p style="margin-left: 20px;">d. N/A</p> <p>10. Ceiling Types</p> <p style="margin-left: 20px;">a. Under Attic (Vented)</p> <p style="margin-left: 20px;">b. N/A</p> <p style="margin-left: 20px;">c. N/A</p> <p>11. Ducts</p> <p style="margin-left: 20px;">a. Sup: Exterior, Ret Exterior, AH: Exterior</p> <p>12. Cooling systems</p> <p style="margin-left: 20px;">a. Central Unit</p> <p>13. Heating systems</p> <p style="margin-left: 20px;">a. Electric Heat Pump</p> <p>14. Hot water systems</p> <p style="margin-left: 20px;">a. Electric</p> <p style="margin-left: 20px;">b. Conservation features</p> <p style="margin-left: 40px;">None</p> <p>15. Credits</p>	<p>Insulation</p> <p>R=19.0</p> <p>R=</p> <p>R=</p> <p>R=</p> <p>Insulation</p> <p>R=38.0</p> <p>R=</p> <p>R=</p> <p>R</p> <p>R</p> <p>Area</p> <p>1626.00 ft²</p> <p>ft²</p> <p>ft²</p> <p>ft²</p> <p>Area</p> <p>1820.00 ft²</p> <p>ft²</p> <p>ft²</p> <p>ft²</p> <p>Area</p> <p>6</p> <p>286</p> <p>kBtu/hr</p> <p>Efficiency</p> <p>30.0</p> <p>SEER:13.00</p> <p>kBtu/hr</p> <p>Efficiency</p> <p>30.0</p> <p>HSPF:7.70</p> <p>Cap: 50 gallons</p> <p>EF: 0.92</p> <p>Pstat</p>
--	--	--	--



I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____
 Address of New Home: _____ City/FL Zip: _____

*Note: This is not a Building Energy Rating. If your index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida EnergyGauge Rating. Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge.com for information and a list of certified Raters. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section 303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

PRODUCT APPROVAL SPECIFICATION SHEET

2425-0329 F
PLAN #
C 660

Manufacturer: CHAMPION HOME BUILDERS - Lake City, Florida

As required by Florida Statute 563.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the manufactured building for which you are applying for a DCA insignia. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at www.floridabuilding.org.

CATEGORY	MANUFACTURER	PRODUCT DESCRIPTION	APPROVAL NUMBERS	APPLICABLE TO THIS MODEL
EXTERIOR DOORS				
SWINGING	ELIXIR INDUSTRIES	FIBERGLASS	FL15310	
SWINGING	ELIXIR INDUSTRIES	STEEL	FL15307	
SWINGING	TAYLOR BUILDING PRODUCTS	STEEL	FL8892-R2	
SLIDING	KINRO, INC.	SLIDING GLASS DOOR	FL 2865-R5	
SLIDING	CUSTOM WINDOW SYSTEMS	SLIDING GLASS DOOR-Impact	FL11103-R1	
OTHER				
WINDOWS				
SINGLE HUNG	KINRO, INC	9750 S.H. LOW E. INSULATED	FL 993-R9	
FIXED	KINRO, INC	9700 LOW E. INSULATED	FL 995-R4	
SINGLE HUNG	CUSTOM WINDOW SYSTEMS	8100 LOW E. INSULATED-Impact	FL 5823-R5	
BLOCK GLASS	HY-LITE	ACRYLIC / BLOCK	open	
OTHER				
EXTERIOR WALL				
EXTERIOR SIDING	VARIFORM	VINYL LAP	FL 15152.14	
	HARDIE SIDING	FIBER / CEMENT	FL 13192-R2	
SOFFIT	HARDIE SOFFIT	FIBER / CEMENT	FL 13265-R1	
OTHER				
ROOFING PRODUCTS				
ASPHALT SHINGLES	OWENS CORNING	ASPHALT SHINGLES	FL 10674-R6	
UNDERLAYMENTS	WOODLAND IND	30# SATURATED FELT	FL 1814-R6	
CEMENTS/ADHESIVES/COATINGS	TAMKO	PLASTIC ROOFING CEMENT	FL 1960-R3	
METAL ROOFING	GULF COAST SUPPLY & MFG, INC	CLASSIC RIB PANEL	FL 11651-R1	
METAL ROOFING	SOUTHEASTERN METAL	CLASSIC RIB PANEL	FL 11175-R1	
OTHER				
SHUTTERS				
CHAMPION HOME BUILDERS ONLY INSTALLS DECOR SHUTTERS				
SKYLIGHTS				
TUBULAR	SUN-TEK	DOMED SKYLIGHT	FL 13488-R1	
STRUCTURAL COMPONENTS				
TRUSS PLATES	ALPINE	TRUSS PLATE	FL 1999-R4	
ENGINEERED LUMBER	WEYERHAEUSER	LVL LUMBER	FL 1630-R7	

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following must be available to the inspector at the manufacturing plant: (1) Copy of the product approval from Local or State Building Commission, or supply all of the information listed on Form No 9B-72.130(5) (2) Copy of the applicable manufacturers' installation requirements.

I understand these products may have to be removed if the approval cannot be demonstrated during inspection.

Manufacturer's Authorized Agent Signature _____ Printed Name _____ Date _____