THIS HOME HAS BEEN DESIGNED SPECIFICALLY FOR:

19 MERRIAM STREET (ON PEAKS ISLAND) CITY OF PORTLAND, ME 04108 **CUMBERLAND COUNTY**

BUILDER:

HALLMARK HOMES

PFS CORPORATION **Approval Limited to Factory Built Portion Only**

State: Signature:

Renee Moiss

Staff Plan Reviewer Title: 12/12/14 Date:

+/- 29'-10" TOP OF SILL TO PEAK THERE ARE NO LOT LINE FIRE SEPARATION REQUIREMENTS 8'-0" 2ND FLOOR CEILING HEIGHT 2ND FLOOR FLOOR 8'-0" 1ST FLOOR CEILING HEIGHT FINISHED GRADE VARIES ROOF, COLUMNS, STEPS, RAILING, PORCH FLR. AND HEADER TO BE SUPPLIED AND INSTALLED BY BUILDER. OUTLINE OF FOUNDATION BELOW GRADE 32'-9%"

FRONT "WEST" ELEVATION

NOTES:

- 1. ITEMS SHOWN ON THE EXTERIOR ELEVATION DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY
- 2. GRILLS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY (SEE WINDOW MANUFACTURER CATALOG FOR ACTUAL GRILL PATTERN)

■ EXCEL HOMES OF ME.

OXFORD, ME 04270

PHONE:

56 MECHANIC FALLS ROAD

(888) 333-1748 (207) 539-0944

SITE CONDITIONS:

GROUND SNOW LOAD: WIND SPEED: <100 MPH EXPOSURE: SEISMIC CATEGORY: SINGLE FAMILY USE GROUP: CONSTRUCTION TYPE: VB WOOD FRAME UNPROTECTED

SQUARE FOOTAGE:

FIRST FLOOR: 887 SQ. FT. SECOND FLOOR: 559 SQ. FT. BONUS ROOM: SQ. FT. GARAGE: SQ. FT. TOTAL: 1,446 SQ. FT.

27'-0 3/4" x 20'-8"/32'-9 3/8" OVERALL SIZE CUSTOM COLONIAL

STATE: KIM 4350 ME □PD ■QN □SN □SD BUILDER:

HALLMARK HOMES

CUSTOMER/PROJECT: **CARTER (32307)**

KEISER HOMES

BUILT BY EXCEL HOMES OF MAINE

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> ADJUSTMENTS MADE FOR CODE COMPLIANCE AND PRODUCTION CAPABILITY

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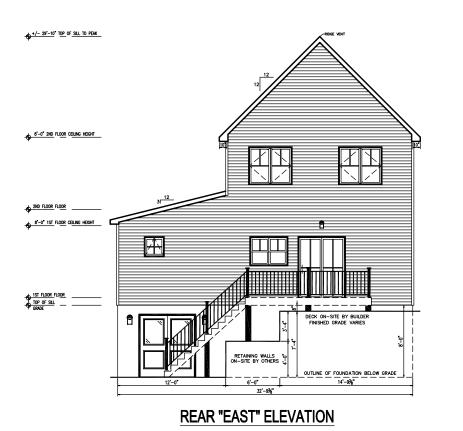
YYD YYD YYD WJC SLP RT

DRAWING TITLE:

COVER SHEET

SCALE: SHEET: P1

1/8" = 1'-0"





KIM 4350 ME □PD ■QN □SN □SD BUILDER: HALLMARK HOMES CUSTOMER/PROJECT: **CARTER (32307)** KEISER HOMES BRAND **BUILT BY EXCEL HOMES** OF MAINE THIS DRAWING AND DESIGN IS THE PROPERTY OF EXCEL HOMES GROUP, LLC. ANY REPRODUCTION OF THE DRAWING OR DESIGN IS PROHIBITED WITHOUT THE EXPRESS WRITTEN CONSENT OF EXCEL HOMES GROUP, ADJUSTMENTS MADE FOR CODE COMPLIANCE AND PRODUCTION CAPABILITY DRAWING MAY BE REVERSED YYD YYD PIF MJC SLP DRAWING TITLE: **ELEVATIONS**

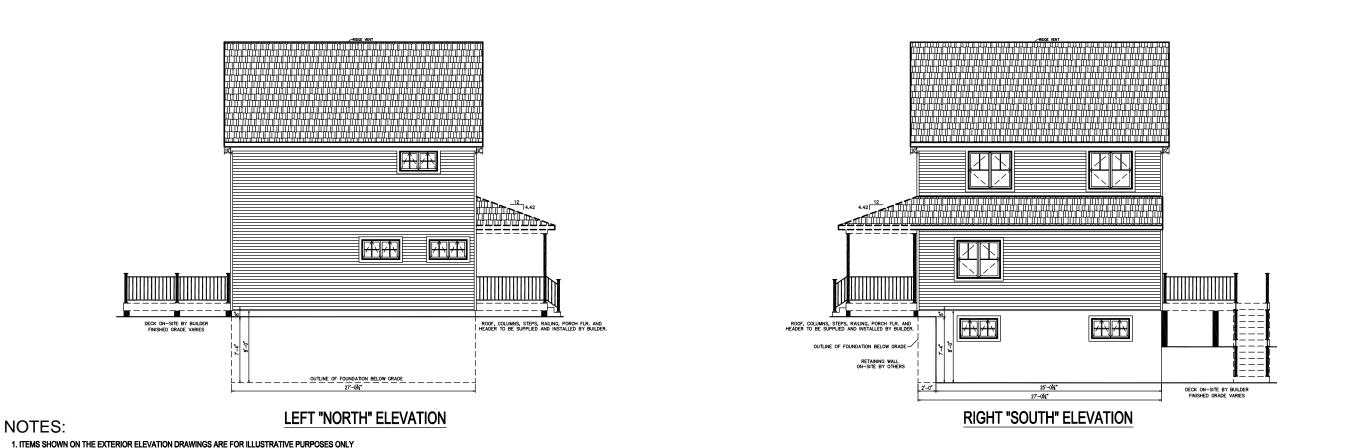
SCALE:

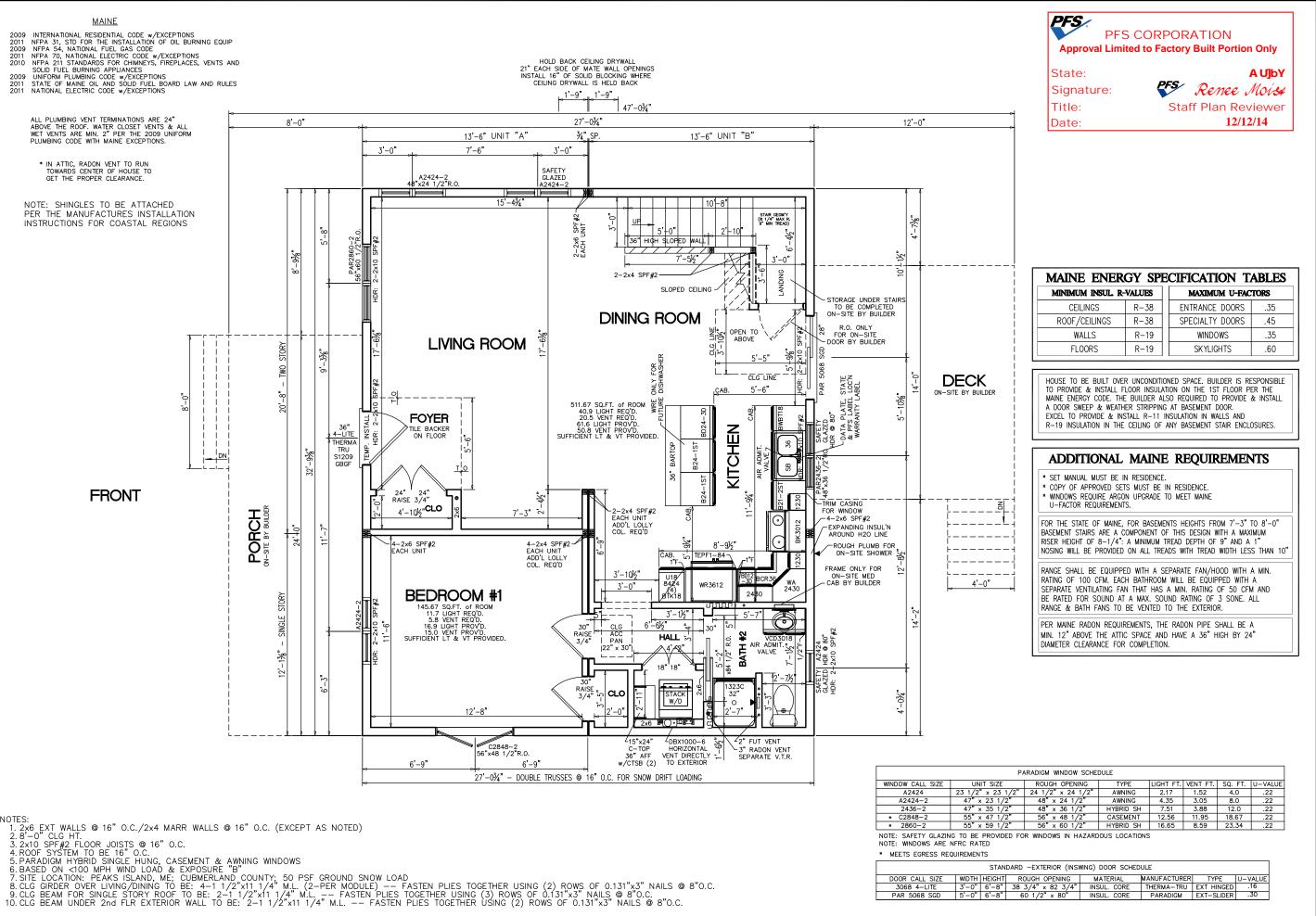
3/32" = 1'-0"

SHEET:

P1.1

STATE:





PTL#: STATE:

KIM 4350 ME

□ PD ■ QN □ SN □ SD

BIII DER:

HALLMARK HOMES

CUSTOMER/PROJECT:

CARTER (32307)

KEISER HOMES

BUILT BY EXCEL HOMES
OF MAINE

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ME DATE

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PF

YYD YYD MUC SLP RT

SCRIPTION

ERMIT SET

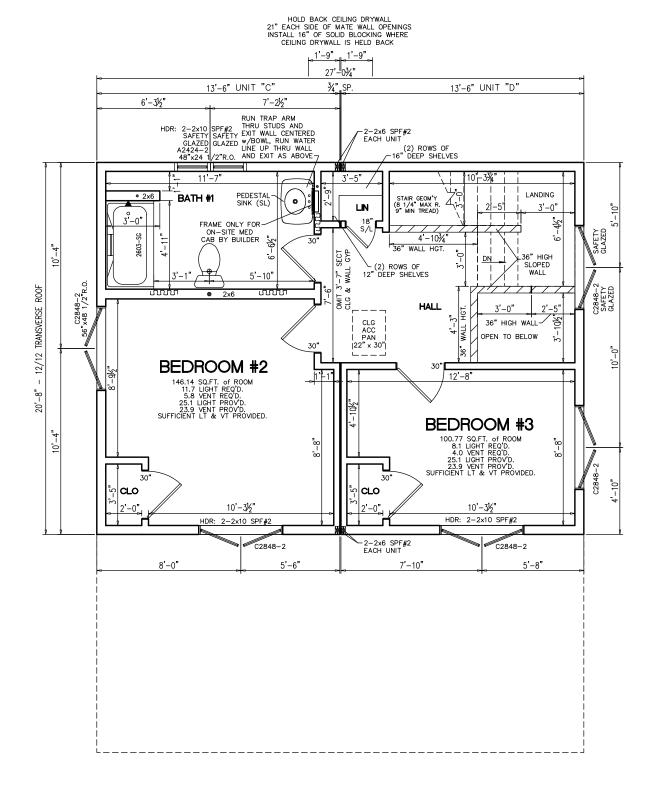
10-21-14 11-12-14 11-18-14 11-20-14

DRAWING TITLE:

FIRST FLOOR PLAN

3/16" = 1'-0"

SHEET:



FRONT

NOTES:
1. 2x6 EXT WALLS @ 16" O.C./2x4 MARR WALLS @ 16" O.C. (EXCEPT AS NOTED)
2. 8'-0" CLG HT.
3. 2x10 SPF#2 FLOOR JOISTS @ 16" O.C.
4. ROOF SYSTEM TO BE 16" O.C.
5. PARADIGM HYBRID SINGLE HUNG WINDOWS
6. FLR GIRDER TO BE: 4-1 1/2"x9 1/4"x 20'-8" M.L. (2-PER MODULE) -- FASTEN PLIES TOGETHER USING (2) ROWS OF 0.131"x3" NAILS @ 8"O.C.

PFS CORPORATION

Approval Limited to Factory Built Portion Only

State:

PFS Renee Moiss Signature:

Staff Plan Reviewer Title: Date: 12/12/14

PTL#: STATE: ME KIM 4350 □PD ■QN □SN □SD

BUILDER:

HALLMARK HOMES

CUSTOMER/PROJECT:

CARTER (32307) KEISER HOMES

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DRAWING MAY BE REVERSED

YYD YYD PIF MJC SLP

DRAWING TITLE:

A UJbY

SECOND FLOOR PLAN

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

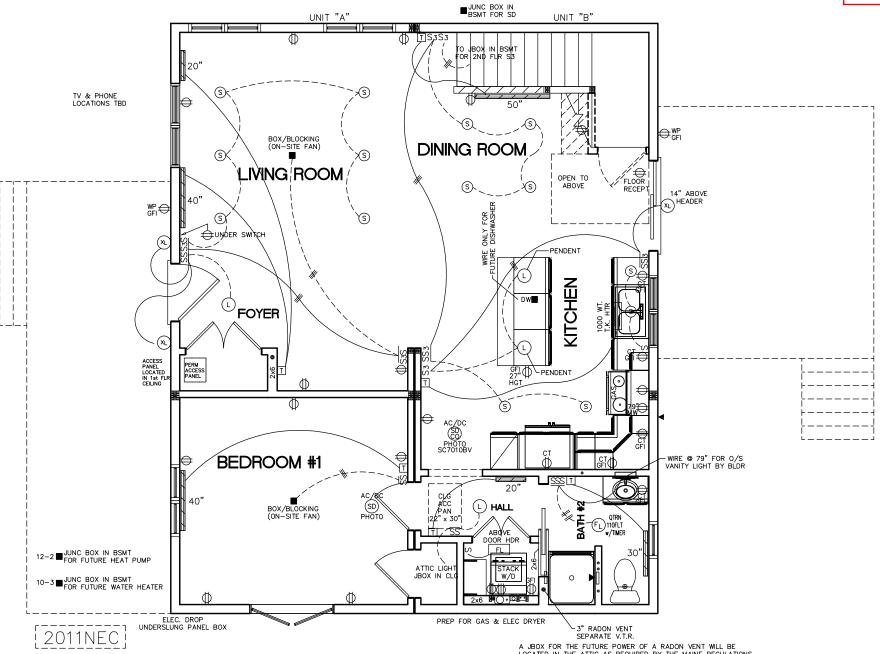
SHEET: P2.1



State:

PFS Renee Moiss Signature: Staff Plan Reviewer Title:

12/12/14 Date:



* THIS PLAN MAY HAVE ADDITIONAL APPLIANCES/FIXTURES ADDED TO THE

- * HIS PLAN MAY HAVE ADDITIONAL APPLIANCES/FIXTURES ADDED TO THE ELECTRICAL SCHEMATIC AND/OR PANEL BOX PROVIDING THE LOADING DOESN'T EXCEED THE MAXIMUM ALLOWED BY STATE & LOCAL CODES.

 * E-CUTOFF SWITCH ON-SITE BY OTHERS PER ALL STATE & LOCAL CODES.

 * ALL BRANCH CIRCUITS SUPPLYING 15 & 20 AMPERE OUTLETS IN LIVING SPACES ARE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12.2011 NEC.
- * PER 406.12 OF 2011 NEC ALL 125 -VOLT, 15 AND 20 AMP RECEPTS INSTALLED IN AREAS SPECIFIED BY 210.52, SHALL BE LISTED TAMPER RESISTANT TYPE.
- * BUILDER IS RESPOSIBLE FOR INSTALLING GAS LINES
- * 50# LIGHT BOXES REQUIRED

A JBOX FOR THE FUTURE POWER OF A RADON VENT WILL BE LOCATED IN THE ATTIC AS REQUIRED BY THE MAINE REGULATIONS. JBOX TO BE POWERED ON A GENERAL LIGHTING CIRCUIT.

STATE: ME KIM 4350 □PD ■QN □SN □SD

BUILDER:

HALLMARK HOMES

CUSTOMER/PROJECT:

CARTER (32307) KEISER HOMES

BUILT BY EXCEL HOMES OF MAINE

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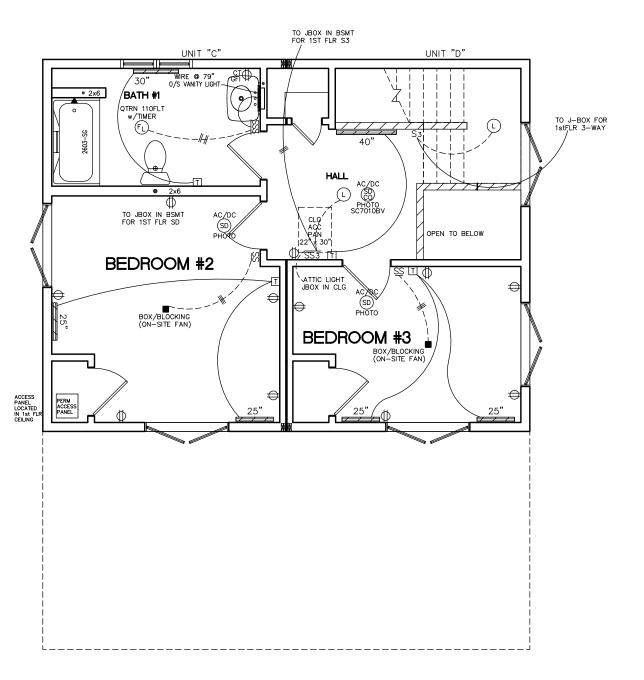
DRAWING MAY BE REVERSED

YYD YYD PIF MJC SLP

DRAWING TITLE:

FIRST FLOOR **ELECTRICAL PLAN**

SCALE: NTS SHEET: P6



2011NEC

- * THIS PLAN MAY HAVE ADDITIONAL APPLIANCES/FIXTURES ADDED TO THE
- * HIS PLAN MAY HAVE ADDITIONAL APPLIANCES/FIXTURES ADDED TO THE
 ELECTRICAL SCHEMATIC AND/OR PANEL BOX PROVIDING THE LOADING
 DOESN'T EXCEED THE MAXIMUM ALLOWED BY STATE & LOCAL CODES.

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- * BUILDER IS RESPOSIBLE FOR INSTALLING GAS LINES
- * 50# LIGHT BOXES REQUIRED

PFS PFS CORPORATION **Approval Limited to Factory Built Portion Only**

State: A U]bY PFS Renee Moiss Signature:

Staff Plan Reviewer Title: 12/12/14 Date:

BUILT BY EXCEL HOMES OF MAINE

KIM 4350

□PD ■QN □SN

CUSTOMER/PROJECT: **CARTER (32307)**

HALLMARK HOMES

KEISER HOMES

BUILDER:

STATE:

ME

□SD

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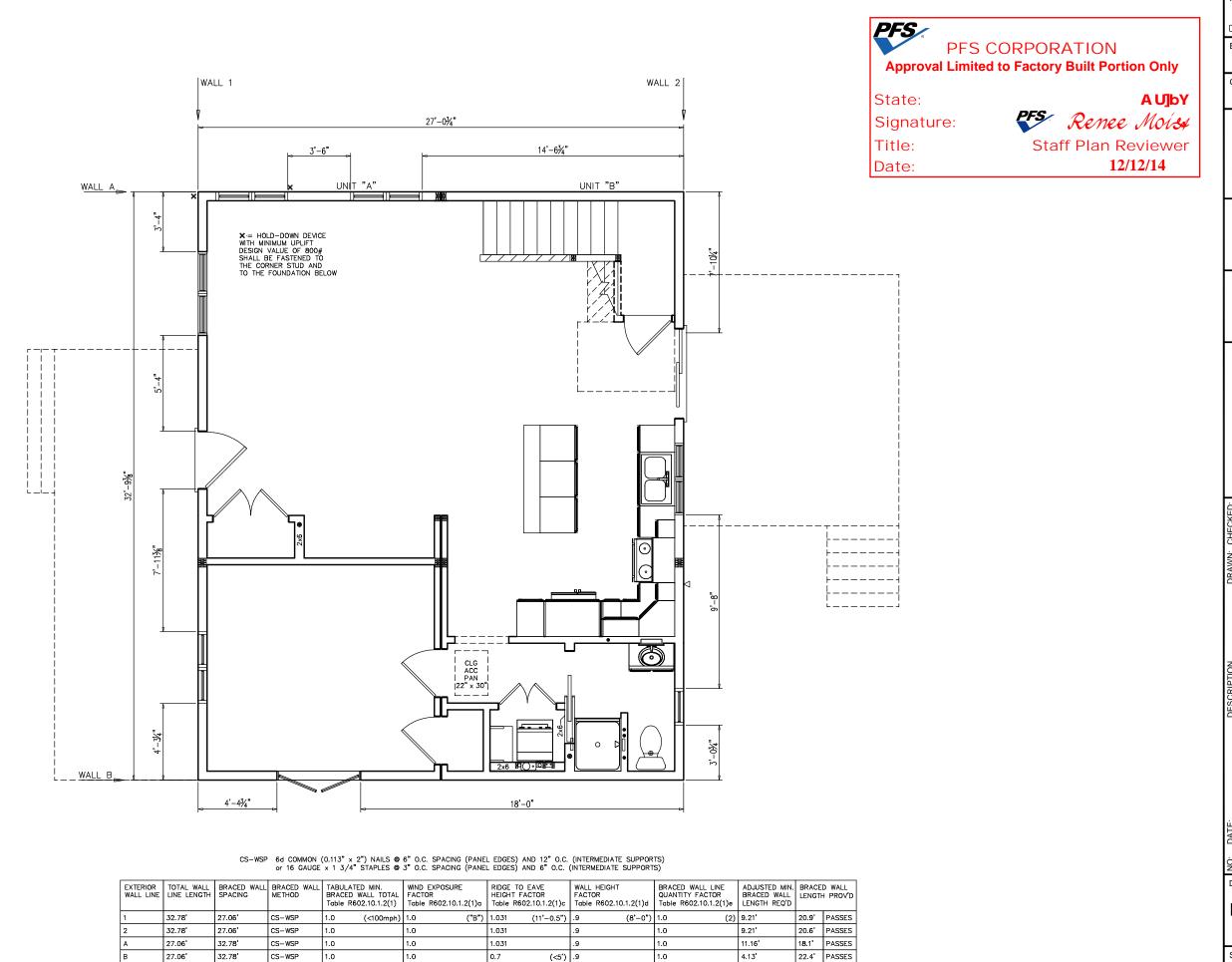
YYD YYD PIF MJC SLP

DRAWING TITLE:

SECOND FLOOR **ELECTRICAL PLAN**

SCALE: NTS

P6.1



PTL#: STATE:

KIM 4350 ME

□ PD ■ QN □ SN □ SD

BUILDER:

HALLMARK HOMES

CUSTOMER/PROJECT:

CARTER (32307)

KEISER HOMES BRAND

BUILT BY EXCEL HOMES OF MAINE

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	CHECKED:	PIF							
١	ZAWN:	YYD	PF	MJC	SLP	RT			

DESCRIPTIO

PERMIT SET

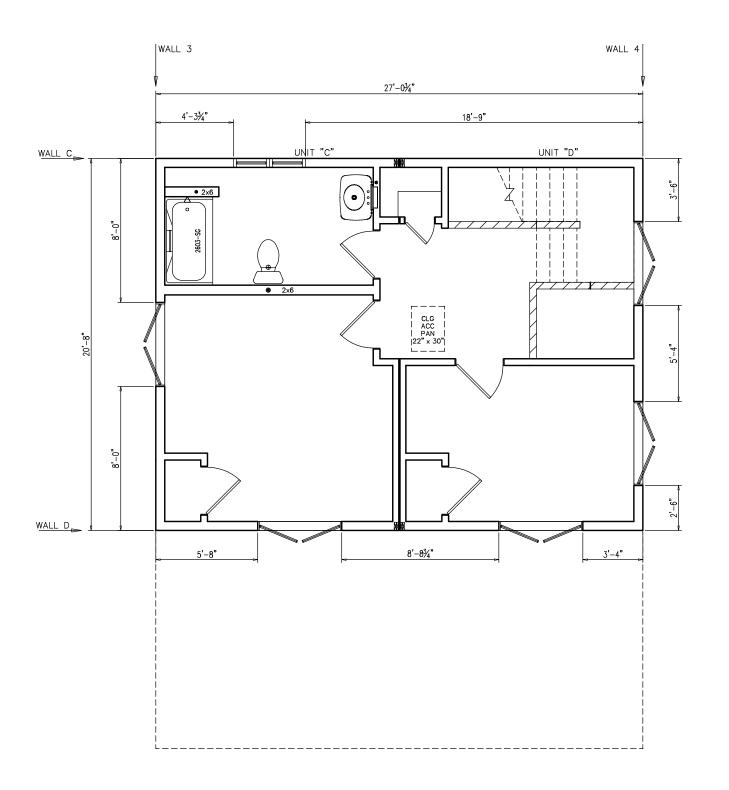
0-21-14 1-12-14 1-18-14 1-20-14

NO: DON1 10 ON2 11 ON2 11 CON2 11 CON2 11 CON3 11 CON3

DRAWING TITLE:

FIRST FLOOR SHEAR WALL PLAN

SCALE: SHEET: 10A



CS-WSP 6d COMMON (0.113" x 2") NAILS @ 6" O.C. SPACING (PANEL EDGES) AND 12" O.C. (INTERMEDIATE SUPPORTS) or 16 GAUGE x 1 3/4" STAPLES @ 3" O.C. SPACING (PANEL EDGES) AND 6" O.C. (INTERMEDIATE SUPPORTS)

EXTERIOR WALL LINE	TOTAL WALL LINE LENGTH	BRACED WALL SPACING		TABULATED MIN. BRACED WALL TOTAL Table R602.10.1.2(1)		RIDGE TO EAVE HEIGHT FACTOR Table R602.10.1.2(1)c	WALL HEIGHT FACTOR Table R602.10.1.2(1)d		ADJUSTED MIN. BRACED WALL LENGTH REQ'D	LENGTH	
3	20.67	27.06'	CS-WSP	1.0 (<100mph)	1.0 ("B")	1.063 (11'-0.5")	.9 (8'-0")	1.0 (2)	5.18'	16.0'	PASSES
4	20.67	27.06'	CS-WSP	1.0	1.0	1.063	.9	1.0	5.18'	11.3'	PASSES
С	27.06'	20.67'	CS-WSP	1.0	1.0	1.063	.9	1.0	3.95'	23.1'	PASSES
D	27.06'	20.67'	CS-WSP	1.0	1.0	1.063	.9	1.0	3.95'	17.7'	PASSES

PFS PFS CORPORATION **Approval Limited to Factory Built Portion Only** State: PFS Renee Moiss Signature:

Staff Plan Reviewer Title: 12/12/14

Date:

STATE: ME KIM 4350 □PD ■QN □SN $\square SD$ BUILDER:

HALLMARK HOMES CUSTOMER/PROJECT:

CARTER (32307)

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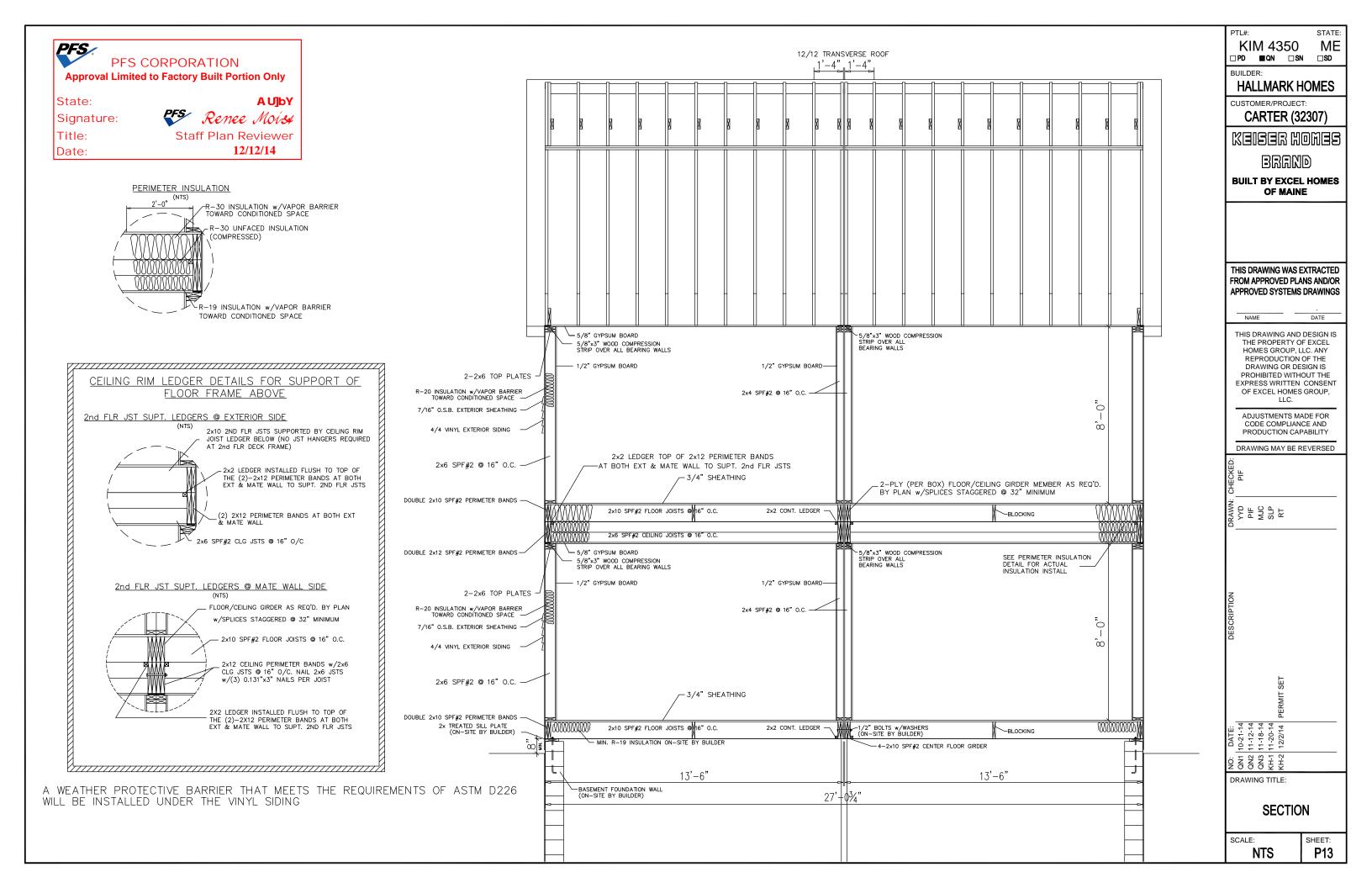
DRAWING MAY BE REVERSED

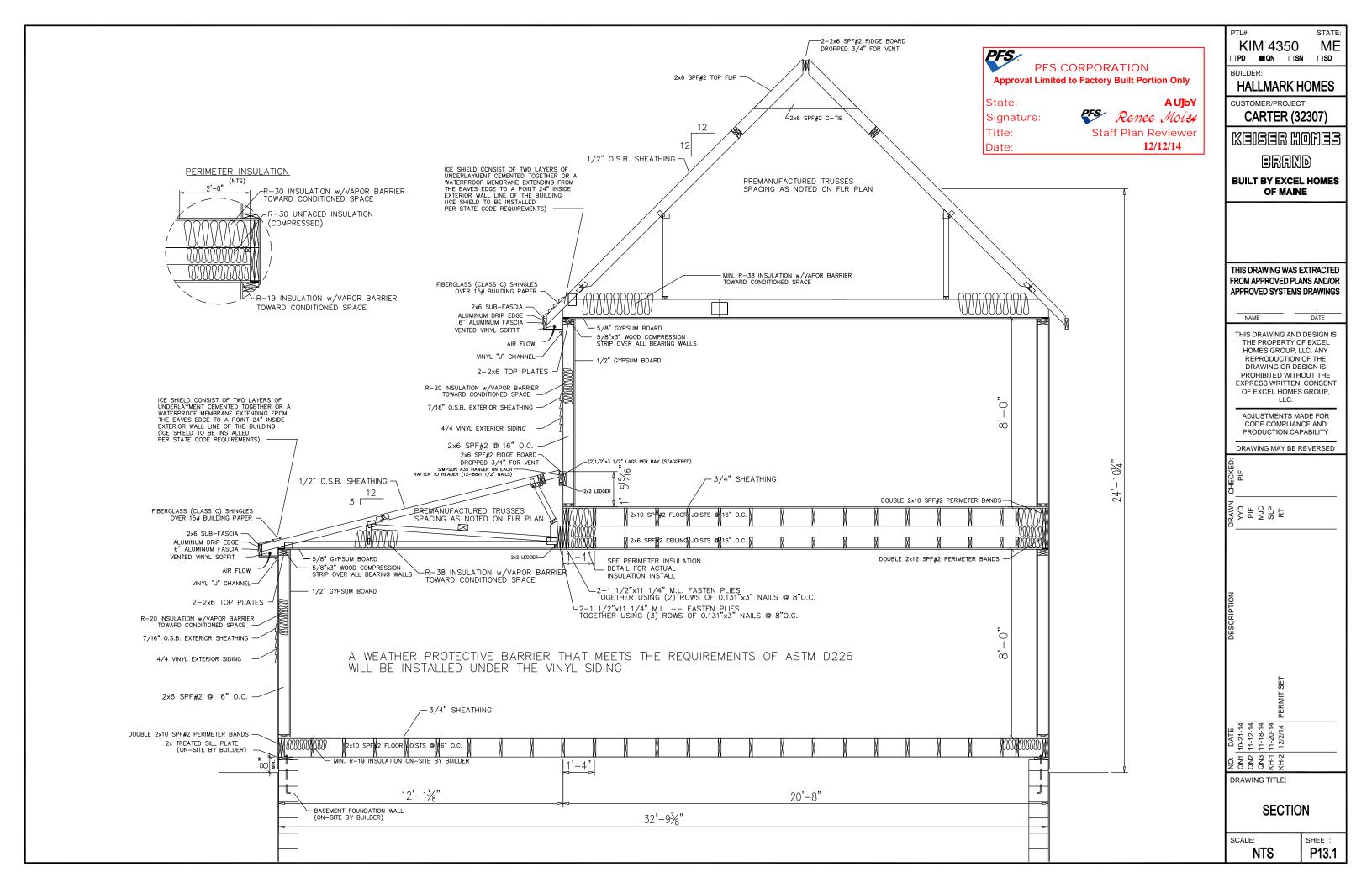
SAWN YYD PIF MJC SLP RT

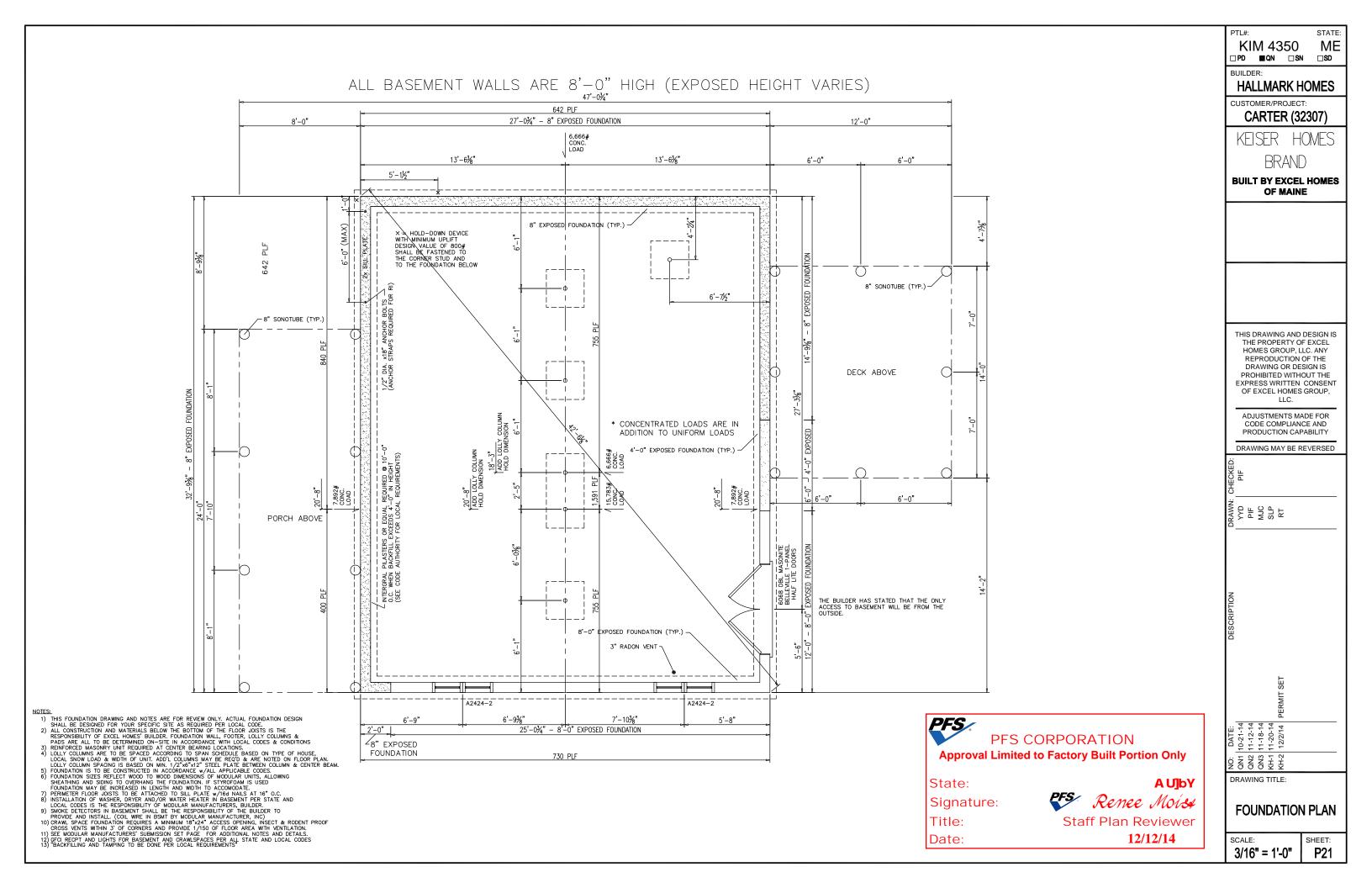
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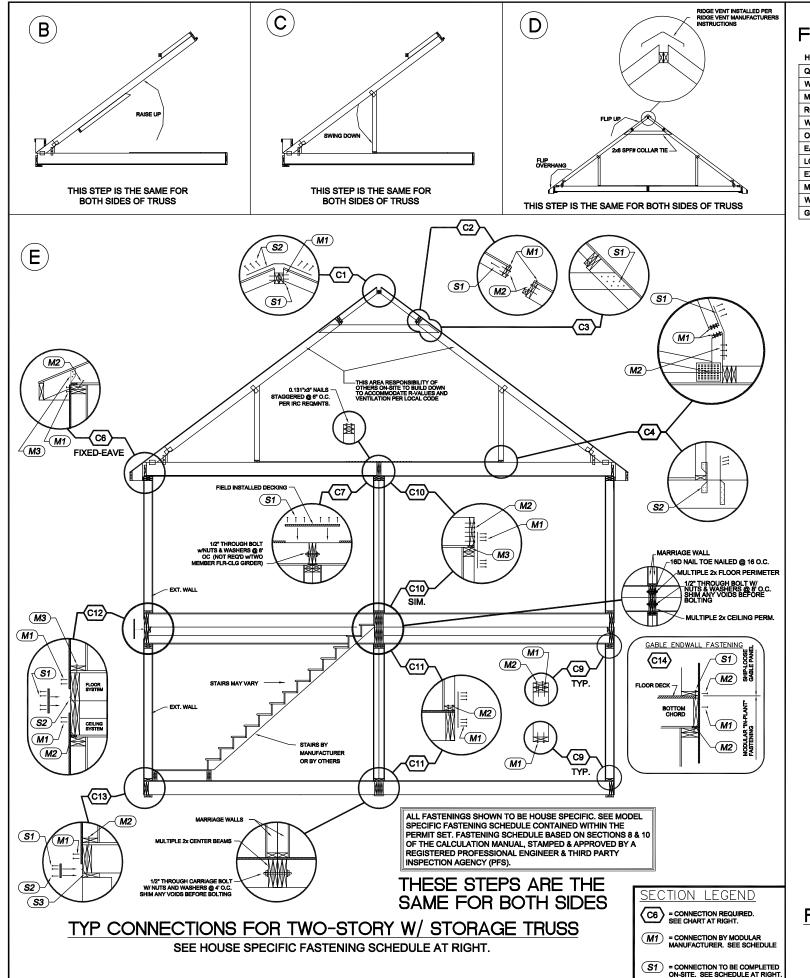
SECOND FLOOR SHEAR WALL PLAN

SCALE: SHEET: 10B NTS









FASTENING SCHEDULE

HOUSE-SPECIFIC INFO

QUOTE#: 4350 STATE: ME
WIND SPEED: <100 mph SNOW LOAD: 50 psf
MEAN ROOF HT.: 24'-10 1/4"
ROOF O.C.: 16 in
WALL O.C.: 16 in
OVERHANG DEPTH: 10 in
EAVE OVERHANG: FIXED
LOCATION: MAIN HOUSE
EXTERIOR WALLS: 2x6
MARRIAGE WALLS: 2x4
WALL HT.: 8.0 ft
GABLE WALL HT.: 11 ft

TRUSS-SPECIFIC CONNECTION INFO

CONNECTION LOCATION	FORCE (lbs)				
CONNECTION LOCATION	TENSION	SHEAR	COMPRESSION		
RIDGE TO RIDGE	153	149			
RIDGE FLIP TO TOP CHORD	102	200			
COLLAR TIE TO TOP CHORD	220	19	626		
KNEEWALL TO TOP CHORD					
KNEEWALL TO BOTTOM CHORD (OR KING POST)	339	161			
TRUSS HEEL UPLIFT	3	3			
TRUSS HEEL HORIZONTAL	198				
TRUSS MATEWALL UPLIFT	59				
TRUSS MATEWALL HORIZONTAL	121				

FASTENING TO BE COMPLETED "ON-SITE"

CONN.#	DES	CONNECTION AREA	CONNECTION REQUIRED	CALC MANUAL PAGE REF#
C1	S1	RIDGE TO RIDGE	(2) 0.131" x 3-1/4" FACE-NAILS PER TRUSS BAY	8.0.4
Ci	S2	FLIP RAFTER TO FLIP RAFTER	(1) 1.25" x 20 GA STRAP w/ (14) 8d NAILS EVERY THIRD TRUSS	8.0.5
C2	S1	TOP CHORD CONTINUOUS TO FLIP CONTINUOUS	(3) 0.131" x 3-1/4" FACE-NAILS PER TRUSS BAY	8.0.7
СЗ	S1	COLLAR TIE TO RAFTER	(7) 0.131" x 3-1/4" FACE-NAILS BOTH SIDES OF COLLAR-TIE	8.0.13
C4	S1	KNEEWALL TO TRUSS CHORD (STORAGE TRUSS)	1 SIMPSON H8	8.0.12
	S2	KNEEWALL TO TRUSS CHORD (SHED TRUSS)	(1) 1.25" x 26 GA STRAP w/ (8) 8d NAILS EVERY THIRD TRUSS	8.0.12
C5	S1	SHEATHING TO TOP CHORD	(3) 0.131" x 2-1/2" FACE-NAILS PER TRUSS	10.18.0
L Co	S2	FLIP CONTINUOUS TO STUD	N/A	10.22.0
C7	S1	DECKING ACROSS MATEWALL (TRUSS TO TRUSS)	N/A	8.0.11
C12	S1	SHEATHING BAND TO RIM JOISTS	(2) ROWS OF 0.131" x 2-1/2" FACE-NAILS AT 16" O.C.	10.4.0
U12	S2	RIM JOIST TO RIM JOIST (HORIZONTAL LOADING)	(1) ROW OF 0.131" x 3-1/4" TOE-NAILS AT 6" O.C.	2009 IRC
	S1	SHEATHING BAND TO RIM	(2) ROWS OF 0.131" x 2-1/2" FACE-NAILS AT 16" O.C.	10.4.0
C13	S2	SHEATHING BAND TO SILL PLATE	(1) ROW OF 0.131" x 2-1/2" FACE-NAILS AT 16" O.C.	10.5.0
	S3	FLOOR RIM TO SILL PLATE	(1) ROW OF 0.131" x 3-1/4" TOE-NAILS AT 6" O.C.	10.14.0
C14	S1	WALL PLATE TO RIM & RAFTER	(1) ROW OF 0.131" x 3-1/4" FACE NAILS AT 8" O.C.	10.20.0

FASTENING TO BE COMPLETED BY "MANUFACTURER"

CONN.#	DES	CONNECTION AREA	CONNECTION REQUIRED	CALC MANUAL PAGE REF#
C1	M1	RIDGE TO FLIP RAFTER	(3) 0.131" x 3-1/4" FACE-NAILS PER TRUSS	8.0.2
C2 N		SHEATHING TO ROOF CONTINUOUS	(2) 0.131" x 2-1/2" FACE-NAILS PER TRUSS EA. SIDE	8.0.8
C2	M2	CONTINUOUS TO FLIP RAFTER OR TOP CHORD	(4) 0.131" x 3-1/4" FACE-NAILS PER TRUSS	8.0.6
C4	M1	KNEEWALL PLATE TO KNEEWALL OR KINGPOST	(3) 0.131" x 3-1/4" FACE-NAILS PER TRUSS	8.0.9
C4	M2	KINGPOST TO KNEEWALL STUD	(1) 1.25" x 26 GA STRAP w/ (8) 8d NAILS EVERY THIRD TRUSS	8.0.10
	M1	SHEATHING TO WALL PLATES	(2) ROWS OF 0.131" x 2-1/2" NAILS AT 16" O.C.	10.3.0
C6	M2	TRUSS TO TOP PLATE (HORIZONTAL LOADING)	(2) 0.131" x 3-1/4" TOE-NAILS	10.10.0
CO	МЗ	TRUSS TO TOP PLATE (OR WALL STUD)	(1) SIMPSON MTS30 - EVERY THIRD TRUSS	10.2.0
	M4	CONTINUOUS TO BOTTOM CHORD	(1) 0.131" x 3-1/4" FACE-NAILS PER TRUSS	10.15.0
C9	M1	PLATE TO STUD	(2) 0.131" x 3-1/4" FACE-NAILS PER STUD	10.12.0
Ca	M2	PLATE TO PLATE	(1) ROW OF 0.131" x 3-1/4" FACE-NAILS AT 13" O.C.	10.11.0
	M1	CONTINUOUS TO WALL STUD	(1) LSTA12 STRAP w/ (10) 0.148" x 2-1/2" NAILS AT 48" O.C.	10.17.0
C10	M2	CONTINUOUS TO TRUSS (OR CEILING JOIST)	(2) 0.131" x 3-1/4" FACE-NAILS PER TRUSS	10.15.0
	МЗ	CONTINUOUS TO WALL PLATES	(1) ROW OF 0.131" x 3-1/4" TOE-NAILS AT 6" O.C.	2009 IRC
C11	M1	FLOOR RIM TO WALL STUD	(1) LSTA12 STRAP w/ (10) 0.148" x 2-1/2" NAILS AT 48" O.C.	10.17.0
CII	M2	WALL PLATE TO FLOOR RIM	(2) ROWS OF 0.131" x 3-1/4" FACE-NAILS AT 16" O.C.	2009 IRC
	M1	SHEATHING TO RIM JOIST	(2) ROWS OF 0.131" x 2-1/2" FACE-NAILS AT 16" O.C.	10.4.0
C12	M2	RIM JOIST TO WALL PLATE	(1) ROW OF 0.131" x 3-1/4" TOE-NAILS AT 6" O.C.	2009 IRC
	МЗ	PLATE TO FLOOR RIM JOIST	(1) ROW OF 0.131" x 3-1/4" FACE-NAILS AT 7" O.C.	10.13.0
C13	M1	SHEATHING TO RIM JOIST	(2) ROWS OF 0.131" x 2-1/2" FACE-NAILS AT 16" O.C.	10.4.0
UIS	M2	PLATE TO FLOOR RIM JOIST	(1) ROW OF 0.131" x 3-1/4" FACE-NAILS AT 7" O.C.	10.13.0
C14	M1	SHEATHING TO RIM AND GABLE WALL	(1) ROW OF 0.131" x 3-1/4" FACE-NAILS AT 6" O.C.	10.21.0
C14	M2	TRUSS BOTTOM CHORD TO WALL PLATE	(1) ROW OF 0.131" x 3-1/4" FACE-NAILS AT 6" O.C.	10.21.0

PFS CORPORATION
Approval Limited to Factory Built Portion Only
State: AUJOY
Signature: FS Renee Moiss
Title: Staff Plan Reviewer
Date: 12/12/14

FASTENING REQUIREMENTS FOR TWO-STORY W/ STORAGE TRUSS

FASTENING SHOWN IS HOUSE SPECIFIC TO THE MODEL CONTAINED WITHIN THIS PERMIT SET.
ALTERNATE FASTENERS OF EQUAL OR GREATER VALUE MAY BE SUBSTITUTED
FOR THOSE SHOWN, PROVIDED THEY RESIST THE LOADS/FORCES IMPOSED PER CONNECTION.

PTL#: STATE:

KIM 4350 ME

□ PD ■ QN □ SN □ SD

BUILDER:

HALLMARK HOMES

CARTER (32307)

EISER HOMES BRAND

BUILT BY EXCEL HOMES OF MAINE

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AWWN: CHECKED:

WJC

NJC

SLP

RT

RT

YYD YYD MJC SLP

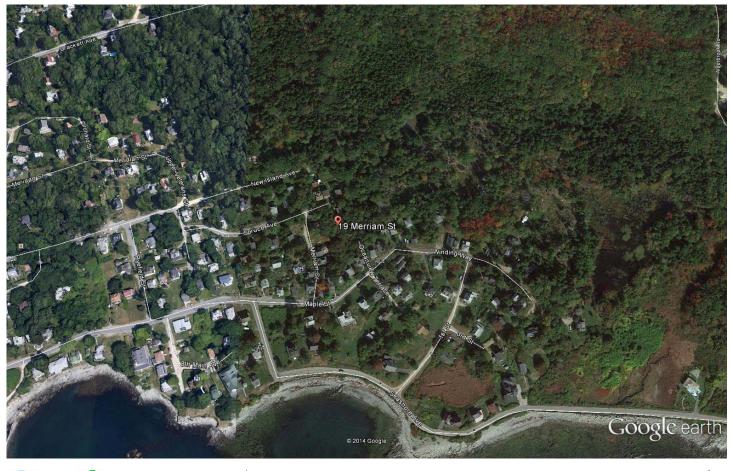
MIT SET

1-12-14 1-18-14 1-20-14

DRAWING TITLE:

-

SCALE: SHEET: NTS -



Google earth

feet ______1000 meters 400



HEAT LOSS CALC QN- 4350 (32307) "U" VALUES: DATE 11/13/2014 CEILING: 0.026 BY PIF FLOOR: 0.053 STATE: ME WALL: 0.053 DELTA T 85

(ONLY 2x4 & 2x6)

USE H6 FOR R21/C6 FOR R17

WALL TYPE

NOTES:

R30=.040 R38=.026 R42=.024 R49=.020

R19=.053 R30=.040

		,															
DATA:	LR	DR	KIT	BATH#1	BATH#1	BR#1	BR#2	BR#3	LAUNDRY	HALL							TOTAL
FLOOR(1,2,3SINGLE)	1	1	1	2	1	1	2	2	1	2							
# OF EXT. WALL(S):	2	2	1	2	2	2	2	2	1	2							
LENGTH	20.5	13.0	12.0	7.0	8.0	13.0	13.5	10.0	8.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
WIDTH	13.50	13.50	13.50	13.50	6.50	13.50	13.50	13.50	7.00	13.50	0.00	0.00	0.00	0.00	0.00	0.00	27.00
CLG HGT	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
EXT WALL	34.00	26.50	12.00	20.50	14.50	26.50	27.00	23.50	8.00	24.50	0.00	0.00	0.00	0.00	0.00	0.00	107.50
.30 WIND	39.1	0.0	13.9	8.0	4.0	26.5	37.0	37.0	0.0	18.5	0.0	0.0	0.0	0.0	0.0	0.0	184.0
.32 WIND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.34 WIND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.36 WIND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.38 WIND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.42 WIND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.14 DOOR (SOLID)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.25 DOOR (GLASS)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.30 DOOR (GLASS)	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.7
.39 DOOR (GLASS)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WALL LOSS	2200	1817	778	999	672	1631	1872	1730	324	1382	0	0	0	0	0	0	13323
CLG LOSS	612	388	358	209	115	388	403	298	124	328	0	0	0	0	0	0	1611
FLR LOSS	1247	791	730	426	234	791	821	608	252	669	0	0	0	0	0	0	3284
AIR INF	3811	2417	1487	1301	716	2417	2510	1859	514	2045	0	0	0	0	0	0	20077
WATT LOSS	2125	1471	877	735	475	1417	1401	1138	319	1100	0	0	0	0	0	0	11214
BTUH LOSS	7258	5025	2995	2509	1622	4839	4785	3887	1090	3755	0	0	0	0	0	0	38295
WATT PROV	2500	2000	1000	1000	1000	1500	1500	1500	500	1500	0	0	0	0	0	0	18500
BTUH PROV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
REQ'D ELEC SIZE(IN	60	50	30	30	30	40	40	40	20	40	20	20	20	20	20	20	
REQ'D HWBB SIZE(FT	14.00	10.00	6.00	5.00	4.00	10.00	9.00	8.00	3.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	
ACTUAL ELEC INST'D	60	50	30	30	30	40	40	40	20	40							380.00
ACTUAL HWBB INST'D																	



Approval Limited to Factory Built Portion Only

A U]bY State:

PFS Renee Moiss Signature:

Staff Plan Reviewer Title: 12/12/14 Date:

Linear Convector[™] LC Series



Revolutionary design provides a sleek, compact heater profile, while improving heater performance, reducing energy consumption, and improving comfort.

Features

- Faster heating of the room than a conventional baseboard due to rapid vertical laminar air flow, directing heat to the ceiling, speeding dispersal of warm air into the center of the room
- Improved performance and reduced length through use of top heat discharge and new fin design
- Superior shark-fin blade design on a steel tubular element for improved heat transfer and longer life
- Discreet styling, reduced length and added versatility of placement provide more options when designing a room
- May be used with wall or top mounted built-in thermostat (not included)
- Full length automatic overheat reset for safety

Applications

 All residential applications, commercial offices, lobbies, washrooms



Specifications

Voltage 120, 208, 240, 347V

Wattage Sizes ranging from 500W to 2500W

Color White or Almond

Finish Specially-formulated epoxy / polyester powder coating is environmentally

friendly and resists fading and abrasion.

Construction Robust, 20 gauge steel construction.

Heating Element A nickel chromium element is totally enclosed within a steel sheath,

providing superior life expectancy and resistance to rust. Shark-fin shaped aluminum fins are firmly staked in an upright position to provide directional

wicking for top discharge heat transfer.

Installation Easily removed front caps, knock-outs on both sides of the convector, and

pre-stamped mounting holes make installation easy.

Warranty Ten year element warranty.

One year warranty on complete unit.





LC Series

Ordering Guide

Cat. No.	Watts	Volts	BTU	Length mm/in.	Weight kg/lbs.
LC2005W11	500	120	1706	508/20	1.7/3.75
LC2005W21	500	208	1706	508/20	1.7/3.75
LC2005W31	500/375	240/208	1706/1280	508/20	1.7/3.75
LC2005W51	500	347	1706	508/20	1.7/3.75
LC2507W11	750	120	2559	635/25	2/4.40
LC2507W21	750	208	2559	635/25	2/4.40
LC2507W31	750/563	240/208	2559/1919	635/25	2/4.40
LC2507W51	750	347	2559	635/25	2/4.40
LC3010W11	1000	120	3412	762/30	2.3/5.00
LC3010W21	1000	208	3412	762/30	2.3/5.00
LC3010W31	1000/750	240/208	3412/2559	762/30	2.3/5.00
LC3010W51	1000	347	3412	762/30	2.3/5.00
LC3512W11	1250	120	4265	889/35	2.9/6.40
LC3512W21	1250	208	4265	889/35	2.9/6.40

Cat. No.	Watts	Volts	BTU	Length mm/in.	Weight kg/lbs.
LC3512W31	1250/938	240/208	4265/3199	889/35	2.9/6.40
LC3512W51	1250	347	4265	889/35	2.9/6.40
LC4015W11	1500	120	5118	1016/40	3.2/7.50
LC4015W21	1500	208	5118	1016/40	3.2/7.50
LC4015W31	1500/1125	240/208	5118/3839	1016/40	3.2/7.50
LC4015W51	1500	347	5118	1016/40	3.2/7.50
LC5020W21	2000	208	6824	1270/50	3.7/8.20
LC5020W31	2000/1500	240/208	6824/5120	1270/50	3.7/8.20
LC5020W51	2000	347	6824	1270/50	3.7/8.20
LC6025W21	2500	208	8530	1524/60	4.4/9.70
LC6025W31	2500/1875	240/208	8530/6398	1524/60	4.4/9.70
LC6025W51	2500	347	8530	1524/60	4.4/9.70

Note: 1) Standard color is white.

Control Options (field installed)

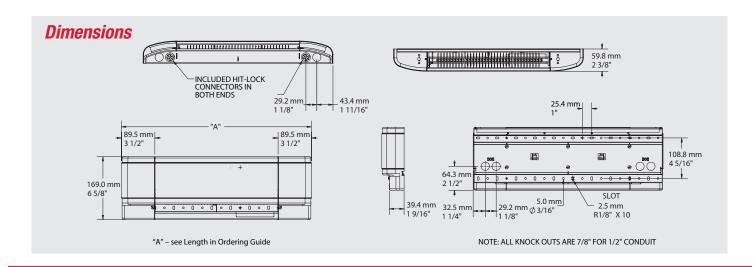
Thermostat Kits

Cat. No.	Description	Rating
DTK-SP	Single pole built-in thermostat kit (adjustable)	120-240V, 17A 347V, 14A
DTK-DP	Double pole built-in thermostat (adjustable)	120-240V, 17A 347V, 11A
DTKT-SP	Single pole built-in tamperproof thermostat kit	120-240V, 17A 347V, 11A
DTKT-DP	Double pole built-in tamperproof thermostat kit	120-240V, 25A 347V, 11A

Note: Each adjustable kit contains white and almond control knobs and hardware

Relays

Cat. No.	Description	Rating
BLLVC11	Low voltage relay & transformer kit	120V, 22A
BLLVC21	Low voltage relay & transformer kit	208V, 22A
BLLVC31	Low voltage relay & transformer kit	240V, 22A
BLLVC51	Low voltage relay & transformer kit	347V, 17A
BLLVD	Low voltage relay less transformer kit	120/208/240, 22A 347V, 17A



²⁾ To order almond, omit "W" in Cat. No.

Truss Type Job Truss Excel Homes of Maine 212 76114 1 1 HMC43101 **HINGE MONO** U-1241 Designer:SM (PA 30040) 7.520 e May 8 2014 MiTek Industries, Inc. Thu Dec 04 10:55:17 2014 Page 1 Universal Forest Products Inc., Grand Rapids, MI 49525, Steve Minahan Copyright © 2014 Universal Forest Products, Inc. All Rights Reserved 0-8-8 3-10-1 8-0-5 6-9-0 0-1-0 3.00 12 SMH18B 3-3-1 OPT, CUT OFF 5-3-2 0-10-8 3x4 =SMH18A 5-4 B1 9 1x3 II 8 3.5x5 =1 1/2 x 1 1/2 3x4 =DADO 8-0-5 3-10-10-8-8 11-10-6

Plate Offsets (X,Y)-- [2:0-3-1,Edge], [3:0-1-8,0-1-8], [4:0-1-0,0-0-0], [5:0-0-4,0-1-0], [8:0-1-10,0-1-12]

	7 - 3 - 1/1 7 1/1			
LOADING (psf) TCLL 38.5 (Ground Snow=50.0) TCDL 10.0 BCLL 0.0 *	SPACING- 1-4-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES	CSI. TC 0.98 BC 0.58 WB 0.91	DEFL. in (loc) l/defl L/d Vert(LL) -0.11 8-9 >999 240 Vert(TL) -0.29 8-9 >477 180 Horz(TL) 0.03 8 n/a n/a	PLATES GRIP MT20 197/144 MT18HS 197/144
BCDL 10.0	Code IBC2009/TPI2007	(Matrix)		Weight: 37 lb FT = 0%

LUMBER-

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 **WEBS**

2x3 SPF Stud *Except* W4: 2x4 SPF Stud

BRACING-TOP CHORD BOT CHORD

WEBS

JOINTS

Structural wood sheathing directly applied, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing. 1 Row at midpt

1 Brace at Jt(s): 10

REACTIONS. (lb/size) 2=532/0-3-8, 8=437/0-3-8, 7=0/Mechanical Max Horz 2=116(LC 14), 7=-116(LC 14) Max Uplift2=-76(LC 7), 8=-59(LC 7) Max Grav 2=573(LC 14), 8=516(LC 14)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/15, 2-3=-1560/196, 3-4=-340/43, 4-11=-321/44, 5-11=-269/54, 5-6=-134/33, 6-7=-120/35, 8-10=-283/87 2-9=-233/1379, 8-9=-233/1379 BOT CHORD

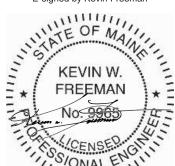
3-9=0/196, 3-8=-1244/190, 5-10=-318/98

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (Ib)/ Maximum Tension (Ib)/ Maximum Shear (Ib)/ Maximum Moment (Ib-in) 6=127/33/28/0, 10=318/98/145/0

- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-05; Pg=50.0 psf (ground snow); Ps=38.5 psf (roof snow); Category II; Exp B; Partially Exp.; Ct=1.1
- 3) Roof design snow load has been reduced to account for slope
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 38.5 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) See HINGE PLATE DETAILS for plate placement.
- 9) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 10) All additional member connections shall be provided by others for forces as indicated.11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 2 and 59 lb uplift at joint 8.
- 14) This truss has been designed in accordance with the 2009 IBC Section 2303.4.6, 2009 IRC Section 802.10.2.
- 15) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.

 16) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set position.

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document,



E-signed by Kevin Freeman

not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

WARNING - Verify design parameters and READ NOTES Universal Forest Products, Inc. PHONE (616)-364-6161 FAX (616)-365-0060 Truss shall not be cut or modified without approval of the truss design engineer

2801 EAST BELTLINE RD, NE GRAND RAPIDS, MI 49525

This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe



[P]

APPROVED

12/12/14

PFS CORPORATION

Bloomsburg, PA



Job Truss Type Qty Truss Ply Excel Homes of Maine 212 P1461101 1 76114 HINGED ATTIC 1 U-1240 Designer; SM (PA 30040)
7.520 e May 8 2014 MiTek Industries, Inc. Thu Dec 04 11:29:48 2014 Page 1 of 1 Universal Forest Products Inc., Grand Rapids, MI 49525, Steve Minahan

Copyright © 2014 Universal Forest Products, Inc. All Rights Reserved 0-8-8 0-8-8 10-4-0 10-4-0 0-3-0 **APPROVED** 12/12/14 DATE **PFS CORPORATION** 12.00 12 Bloomsburg, PA 8-1-6 SMH18F 11-0-0 K35 OPT. CUT OFF X.S. 0<u>-10</u>_t8 10 0-10-8 11-9-0 (ONÉ SIDE SMH18E (ONE SIDE) SMH_{18D} SMH18D 12 B1 B2 14 Ø 5x5 =16 6x10 = 15* See Note 20 & 21* 4-5-8 5-10-8 5-10-8 4-5-8 0-8-8 20-8-0
Plate Offsets (X,Y)-- [2:0-2-3,0-1-15], [3:0-1-8,0-3-12], [4:0-0-0,0-1-0], [10:0-0-0,0-1-0], [11:0-1-8,0-3-12], [12:0-2-3,0-1-15] 0-8-8 LOADING (psf) CSI. SPACING-1-4-0 DEFL in (loc) -0.30 14-16 I/def **PLATES** GRIP TCLL 29.6 1.15 0.74 197/144 Plates Increase >806 240 MT20 Vert(LL) (Ground Snow=50.0) 1.15 ВС -0.55 14-16 >445 MT18HS Lumber Increase 0.57 Vert(TL) 180 197/144 TCDL 10.Ó Rep Stress Incr YES WB 0.22 Horz(TL) 0.01 12 n/a n/a BCLL 0.0 * Code IBC2009/TPI2007 -0.13 14-16 360 Weight: 108 lb FT = 0% (Matrix) Attic 1074 **BCDI** 10.0 LUMBER-BRACING-TOP CHORD 2x6 SPF No.2 *Except* TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. [P] T1: 2x4 SPF No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. BOT CHORD 2x10 SPF No.2 2x3 SPF Stud *Except* **WEBS** W2: 2x6 SPF No.2 REACTIONS. (lb/size) 2=759/0-3-8, 12=759/0-3-8 Max Horz 2=200(LC 8)

Max Uplift2=-56(LC 9), 12=-56(LC 10) Max Grav 2=830(LC 2), 12=830(LC 2)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/51, 2-3=-806/44, 3-4=-675/47, 4-5=-528/84, 5-6=-380/112, 6-7=-41/149, 7-8=-38/142, 8-9=-380/112, 9-10=-527/84, 10-11=-678/48, 11-12=-806/45, 12-13=0/51

BOT CHORD 2-16=-7/429, 15-16=-4/432, 14-15=-4/432, 12-14=-3/429

10-14=-138/342, 4-16=-138/343, 6-8=-636/217 WEBS

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)

 $5 = 418/102/205/0, \, 6 = 639/218/19/0, \, 7 = 31/157/153/0, \, 8 = 636/217/11/0, \, 9 = 415/102/205/0, \, 14 = 138/342/0/0, \, 16 = 138/343/0/0$

- 1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for
- reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 2) TCLL: ASCE 7-05; Pg=50.0 psf (ground snow); Ps=29.6 psf (roof snow); Category II; Exp B; Partially Exp.; Ct=1.1
- 3) Roof design snow load has been reduced to account for slope 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 38.5 psf on overhangs non-concurrent with other live loads
- 6) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) See HINGE PLATE DETAILS for plate placement.
- 9) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 10) All additional member connections shall be provided by others for forces as indicated.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

 13) Ceiling dead load (5.0 psf) on member(s). 4-6, 8-10, 6-8
- 14) Bottom chord live load (30.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-16
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 2 and 56 lb uplift at joint 12. 16) This truss has been designed in accordance with the 2009 IBC Section 2303.4.6, 2009 IRC Section 802.10.2.
- 17) Attic room checked for L/360 deflection.
- 18) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.

 19) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary
- supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set position 20) Temporary supports are required to maintain the bottom chord in a level position during storage, transportation, and setup. Retain a design professional to specify all temporary bracing to support the truss until setup is complete. Temporary support(s) must not be removed until all field
- connections are completed. 21) The bottom chord must be laterally braced during shipment and setup to prevent damage to the splice plate

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

WARNING - Verify design parameters and READ NOTES Universal Forest Products, Inc. PHONE (616)-364-6161 FAX (616)-365-0060 2801 EAST BELTLINE RD. NE

Truss shall not be cut or modified without approval of the truss design engineer This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe



KEVIN W.
FREEMAN
No. 9965

CENSE DONAL ENGINEERS
7, NE. 25



4350 (32307) SHED GIRDER JOB SHEET NO. OF RT 12/2/2014 CALCULATED BY DATE REVISED

Beam & Header Spans - Non Composite

Beam1 = 1.5" x 11.25" Species1 = LVL Grade1 = NA NA NA LVL NA NA NA Beam2 = None Species2 = Grade2 = 2 Quantity Per Box, Q1 = Enter Beam w/ Largest Quantity in Q1 b1= in

3.00 d1= 11.25 in Quantity Per Box, Q2 = 0 d2= in b2= 0.00 0.00

33.75 in^2 Section Modulus, S1 = 63.28 in^3 Moment of Inertia, I1 = 355.96 in⁴ Area, A1 = in³ in^2 0.00 in⁴ Area, A2 = 0.00 Section Modulus, S2 = 0.00 Moment of Inertia, I2 =

Load Duration Beam Stability Size Factor Repetitve Factor **Deflection Criteria** 1.15 1.00 1.00 $C_{R1} =$ 1.00 delta LL = 240 $C_D =$ $C_L =$ $C_{F1} =$ $C_{F2} =$ 1.00 $C_{R2} =$ 1.00 delta TL = 180

Shear Moment Deflection **Load Share**

 $F_{v1} =$ 285 $F_{h1} =$ 2750 2000000 psi E1 =psi psi Beam1 = 100.00 % 0 0 0 $F_{v2} =$ psi $F_{b2} =$ psi E2 = psi Beam2 = 0.00 %

666.5 plf **Controlling Load**

Max Allowable Length = 169.8 Actual Length Needed = 153.0 in in 4248.9 Reaction at Each End = lb 3.3 Minimum Bearing Length Required = in

Species & Grade	Number of Matewall Column Studs Per Box								
	Max 8	Sft Tall C	olumn	Max 9ft Tall Column					
	2x3	2x4	2x6	2x3	2x4	2x6			
spf #2	NG	2	2	NG	3	2			
spf #3	NG	3	2	NG	3	2			
spf stud	NG	3	2	NG	3	2			
sp#2	4	2	2	NG	2	2			

BEAM FASTENING REQUIREMENTS

CONDITION 1 - TOP LOADED - 2 TO 4 PLY BEAMS

12" deep or less - (2) rows of 0.131"x3" nails @ 8" o.c. > 12" & < 18" deep - (3) rows of 0.131"x3" nails @ 8" o.c. > 18" deep - (4) rows of 0.131"x3" nails @ 8" o.c.

CONDITION 2 - SIDE LOADED

2-Ply <= 465plf (2) rows of 0.131"x3" nails @ 8" o.c.

2-Ply <= 700plf (3) rows of 0.131"x3" nails @ 8" o.c.

2-Ply <= 870plf (2) rows of 1/2" Bolts @ 12" o.c.

2-Ply > 870plf (3) rows of 1/2" Bolts @ 12" o.c.

3-Ply <= 350plf (2) rows of 0.131"x3" nails @ 8" o.c.

3-Ply <= 525plf (3) rows of 0.131"x3" nails @ 8" o.c.

3-Ply <= 650plf (2) rows of 1/2" Bolts @ 12" o.c.

3-Ply > 650plf (3) rows of 1/2" Bolts @ 12" o.c.

4-Ply (3) rows of 1/2" Bolts @ 12" o.c.

Note: Stagger fastener rows and locate fasteners minimum 2" from all ends and edges. Space rows equally apart vertically. Fastener spacing is per row.



 JOB 4350 (32307) COLONIAL CLG EXTERIOR GIRDER

 SHEET NO.
 OF

 CALCULATED BY
 RT
 DATE
 12/2/2014

 REVISED

Calculation Procedure									
<u>INPUTS</u>					ONSTANTS	_ '			
Location:		SIDEWA	LL		oor Live Lo		40	psf	
Supporting Roof:		YES			oor Dead L		10	psf	
Number of Floor Support	ting:	1			all Dead Lo		62	plf	
Cape Roof:		YES		C	eiling Dead	Load =	6	psf	
Simply Supported Rafter	:	NO							
Reaction from Truss or F	Rafter =	830	lb			Require	ed Defle	ction Criter	ia
Truss spacing =		16	in o.c.			Live Lo		L/360	
Unit Width =		0	ft			Total Lo	oad =	L / 240	
Roof Live Load / Unbalar	nced Sno	ow Load =	50	psf	A	Attic Live Lo	oad =	30	pst
Roof Dead Load =			20	psf					
Roof/Snow Load =	622.5	plf							
% Roof Live Load =	50.0	%							
% Roof Dead Load =		%							
% Attic Live Load =	30.0	%						Load Dur	
								for Wood	Mem
Load Cases						400 F	16		
1. D+F					=	186.5	plf	Cd =	0.9
2 D+H+F+L+T					_	373.3	plf	Cd =	1 0
2. 2					_		μ	Ou =	1.0
3. D+H+F+(L _r or S	or R)				=	497.8	plf	Cd=	1.15
4. D+H+F+0.75(L+	T) + 0.7	75(L _r or S or	R)		=	606.7	plf	Cd =	1.15
5. D+H+F+(W or 0.7E)					=	186.5	plf	Cd =	0.9
6. D+H+F+0.75(W or 0.7E) + 0.75L + 0.75(L _r or S o					=	606.7	plf	Cd =	1.15
7. 0.6D + W + H				=	111.9	plf	Cd =	n 9	

Check the highest load for each load duration factor when sizing wood members.

Check the highest load and apply no load duration factor when sizing steel members.



Controlling Load

Max Allowable Length =

Reaction at Each End =

 JOB
 4350 (32307) CLG GIRDER

 SHEET NO.
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Beam (& Head	ler Spa	ans - I	Non Co	mposi	ite										
Beam1 =	= 1.5	" x 11.2	5" Sp	ecies1 =	LVI	-	Gra	ade1 =	١	NA	NA			NA		
Beam2 =		5" x 9.25		ecies2 =	LVI		Gra	ade2 =		NA .	NA			NA		
Quantity Quantity			2 2	d1= d2=			in in	b1= b2=	3.00	in in	Enter Beam	w/ La	argest Q	uantity	in Q1	I
Area, A1	= 33		in ²	Sec	tion Mo	dulus	s, S1 =	63.2		n^3	Moment of	Inerti	ia, I1 =	355.	96	in ⁴
Area, A2	2 = 27	7.75	in ²	Sec	tion Mo	dulus	s, S2 =	42.7	78 iı	n ³	Moment of	Inerti	ia, I2 =	197.	86	in ⁴
Load Du	<u>ration</u>	<u>Bea</u>	m Stab	<u>ility</u>	Size Fa	<u>actor</u>		Repeti	tve Fac	<u>ctor</u>	<u>Deflect</u>	ion C	<u>riteria</u>			
C _D =	1.00	C _L =	- 1	.00	$C_{F1} =$	1.0	00	$C_{R1} =$	1.0	0	delta L	L =	360			
					C _{F2} =	1.0)4	C _{R2} =	1.00	0	delta T	L =	240			
Shear				Mor	nent			De	flection	n		Loa	d Share	:		
F _{v1} =	285	psi		F_{b1}	=	2750	psi	i E1	=	2000000	psi	Bea	ım1 =	64.27	%	
F _{v2} =	285	psi		F _{b2}	=	2750	psi	i E2	:=	2000000	psi	Bea	m2 =	35.73	%	

Species & Grade	Number of Matewall Column Studs Per Box								
	Max 8	Sft Tall C	olumn	Max 9ft Tall Column					
	2x3	2x4	2x6	2x3	2x4	2x6			
spf #2	4	2	2	NG	2	2			
spf #3	NG	2	2	NG	3	2			
spf stud	NG	2	2	NG	3	2			
sp#2	4	2	1	4	2	2			

218.9

3332.6

377.5

in

lb

plf

Actual Length Needed =

Minimum Bearing Length Required =

BEAM FASTENING REQUIREMENTS

CONDITION 1 - TOP LOADED - 2 TO 4 PLY BEAMS

211.9

2.6

in

in

12" deep or less - (2) rows of 0.131"x3" nails @ 8" o.c. > 12" & < 18" deep - (3) rows of 0.131"x3" nails @ 8" o.c.

> 18" deep - (4) rows of 0.131"x3" nails @ 8" o.c.

CONDITION 2 - SIDE LOADED

- 2-Ply <= 465plf (2) rows of 0.131"x3" nails @ 8" o.c.
- 2-Ply <= 700plf (3) rows of 0.131"x3" nails @ 8" o.c.
- 2-Ply <= 870plf (2) rows of 1/2" Bolts @ 12" o.c.
- 2-Ply > 870plf (3) rows of 1/2" Bolts @ 12" o.c.
- 3-Ply <= 350plf (2) rows of 0.131"x3" nails @ 8" o.c.
- 3-Ply <= 525plf (3) rows of 0.131"x3" nails @ 8" o.c.
- 3-Ply <= 650plf (2) rows of 1/2" Bolts @ 12" o.c.
- 3-Ply > 650plf (3) rows of 1/2" Bolts @ 12" o.c.
- 4-Ply (3) rows of 1/2" Bolts @ 12" o.c.

Note: Stagger fastener rows and locate fasteners minimum 2" from all ends and edges. Space rows equally apart vertically. Fastener spacing is per row.



 JOB
 4350 (32307) 1st FLR HEADER

 SHEET NO.
 OF

 CALCULATED BY
 RT
 DATE
 12/2/2014

 REVISED

Beam & Header Spans - Non Composite

SPF Beam1 = 2x10 Species1 = SPF Grade1 = NA No.1/No.2 NA NA NA NA Beam2 = None Species2 = LVL Grade2 = Enter Beam w/ Largest Quantity in Q1

Quantity Per Box, Q1 = $\frac{2}{2}$ d1= $\frac{9.25}{2}$ in $\frac{1}{2}$ d2= $\frac{3.00}{2}$ in $\frac{1}{2}$ d2= $\frac{3.00}{2}$ in $\frac{1}{2}$ d2= $\frac{3.00}{2}$ in

27.75 in^2 Section Modulus, S1 = 42.78 in^3 Moment of Inertia, I1 = 197.86 in⁴ Area, A1 = in^2 0.00 in⁴ Area, A2 = 0.00 Section Modulus, S2 = 0.00 in³ Moment of Inertia, I2 =

Load Duration Beam Stability Size Factor Repetitve Factor **Deflection Criteria** 1.00 1.00 1.10 $C_{R1} =$ 1.00 delta LL = 360 $C_D =$ $C_L =$ $C_{F1} =$ $C_{F2} =$ 1.00 $C_{R2} =$ 1.00 delta TL = 240

Shear Moment Deflection Load Share

 $F_{v1} =$ $F_{h1} =$ 1400000 135 875 psi E1 =psi psi Beam1 = 100.00 % 0 0 0 $F_{v2} =$ psi $F_{b2} =$ psi E2 = psi Beam2 = 0.00 %

Controlling Load w = 399.5 plf

Max Allowable Length = 99.5 in Actual Length Needed = 60.5 in

Reaction at Each End = 1007.1 lb Minimum Bearing Length Required = 0.8 in

Species & Grade	Number of Jack Studs Per Box									
	2-	ply Head	der	3-ply Header						
Orado	2x3	2x4	2x6	2x3	2x4	2x6				
spf #2	1	1	1	1	1	1				
spf #3	1	1	1	1	1	1				
spf stud	1	1	1	1	1	1				
sp#2	1	1	1	1	1	1				

BEAM FASTENING REQUIREMENTS

CONDITION 1 - TOP LOADED - 2 TO 4 PLY BEAMS

12" deep or less - (2) rows of 0.131"x3" nails @ 8" o.c. > 12" & < 18" deep - (3) rows of 0.131"x3" nails @ 8" o.c.

> 18" deep - (4) rows of 0.131"x3" nails @ 8" o.c.

CONDITION 2 - SIDE LOADED

2-Ply <= 465plf (2) rows of 0.131"x3" nails @ 8" o.c.

2-Ply <= 700plf (3) rows of 0.131"x3" nails @ 8" o.c.

2-Ply <= 870plf (2) rows of 1/2" Bolts @ 12" o.c.

2-Ply > 870plf (3) rows of 1/2" Bolts @ 12" o.c.

3-Ply <= 350plf (2) rows of 0.131"x3" nails @ 8" o.c.

3-Ply <= 525plf (3) rows of 0.131"x3" nails @ 8" o.c.

3-Ply <= 650plf (2) rows of 1/2" Bolts @ 12" o.c.

3-Ply > 650plf (3) rows of 1/2" Bolts @ 12" o.c.

4-Ply (3) rows of 1/2" Bolts @ 12" o.c.

Note: Stagger fastener rows and locate fasteners minimum 2" from all ends and edges. Space rows equally apart vertically. Fastener spacing is per row.