



Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

Date Received: _____

Permit No.: _____

Building Address: 8134 Brookwood Farm Rd
City: Fulton State: MD Zip Code: 20755
Suite/Apt. #: _____ SDP/WP/BA #: _____
Census Tract: _____ Subdivision: _____
Section: _____ Area: _____ Lot: _____
Tax Map: _____ Parcel: _____ Grid: _____
Zoning: _____ Map Coordinates: _____ Lot Size: _____
Existing Use: SFD
Proposed Use: SFD w/ Sunroom
Estimated Construction Cost: \$ 40,000
Description of Work: Build 20x14 Sunroom on Existing Deck
Occupant or Tenant: _____
Was tenant space previously occupied? ☐ Yes ☐ No
Contact Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Property Owner's Name: Vance Welch
Address: 8134 Brookwood Farm Rd
City: Fulton State: MD Zip Code: 20755
Phone: 301 776 1182 Fax: _____
Email: _____
Applicant's Name & Mailing Address, (If other than stated herein)
Applicant's Name: Gerard Andersen
Address: 7110 Golden Ring Rd
City: Belt State: MD Zip Code: 21221
Phone: 410 780 0062 Fax: _____
Email: Gerard Andersen, Awesome@Gmail.com
Contractor Company: Champion
Contact Person: David McMahon
Address: 7110 Golden Ring Rd
City: Belt State: MD Zip Code: 21221
License No.: 131700
Phone: 410 780 0062 Fax: _____
Email: _____
Engineer/Architect Company: _____
Responsible Design Prof.: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____
Email: _____

Commercial Building Characteristics	Residential Building Characteristics
Height:	☒ SF Dwelling ☐ SF Townhouse
No. of stories:	Depth Width
Gross area, sq. ft./floor:	1 st floor:
	2 nd floor:
Area of construction (sq. ft.):	Basement:
	☐ Finished Basement
Use group:	☐ Unfinished Basement
	☐ Crawl Space
Construction type:	☐ Slab on Grade
☐ Reinforced Concrete	No. of Bedrooms:
☐ Structural Steel	Multi-family Dwelling
☐ Masonry	No. of efficiency units:
☐ Wood Frame	No. of 1 BR units:
☐ State Certified Modular	No. of 2 BR units:
	No. of 3 BR units:
	Other Structure:
	Dimensions:
> Roadside Tree Project Permit	Footings:
☐ Yes ☐ No	Roof:
Roadside Tree Project Permit #	☐ State Certified Modular
	☐ Manufactured Home

Utilities
Water Supply
☐ Public
☐ Private
Sewage Disposal
☐ Public
☒ Private
Electric: ☐ Yes ☐ No
Gas: ☐ Yes ☐ No
Heating System
☐ Electric ☐ Oil
☐ Natural Gas ☐ Propane Gas
☐ Other:
Sprinkler System:
☐ Yes ☐ No
Grading Permit Number:
Building Shell Permit Number:

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: Gerard Andersen
Email Address: Awesome@Gmail.com
Title/Company: _____

Print Name: Gerard Andersen
Date: 12-10-15

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
PLEASE WRITE NEATLY & LEGIBLY
-FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	10/12/15	H. Oswald

Is Sediment Control approval required for issuance? ☐ Yes ☐ No
☐ CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? ☐ Yes ☐ No
Is Entrance Permit Required? ☐ Yes ☐ No
Historic District? ☐ Yes ☐ No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$
Check	#

APPROVED

WALK-THRU BUILDING PERMIT

BP#

A#

APE. SAN H. Oswald DATE: 12/10/15

DESC. OF WORK: Build 20'x14'

Sunroom on existing deck.

11/27/96

The shown porch addition
will have no impact to the
existing well or septic.
O.K. to proceed.

A. McMillen

250' Lx. FL. OF 48" HIGH
POST & RAIL W/WIRE
FENCE W/4' GATE (BY
MPI. AS PER CODE)

650' Sq. Ft. EXP. AGG
POOL DECK

LOT 10
1.083
AC.

EX. DRAIN
FIELDS

EX. 10,000 SF.
SEPTIC RES.
AREA

30' SEWER & UTILITY
EASEMENT

SHED BELOW

EX. RES.

EX. SEPTIC
TANK

EX. DIST. BOX

FILTER PAD

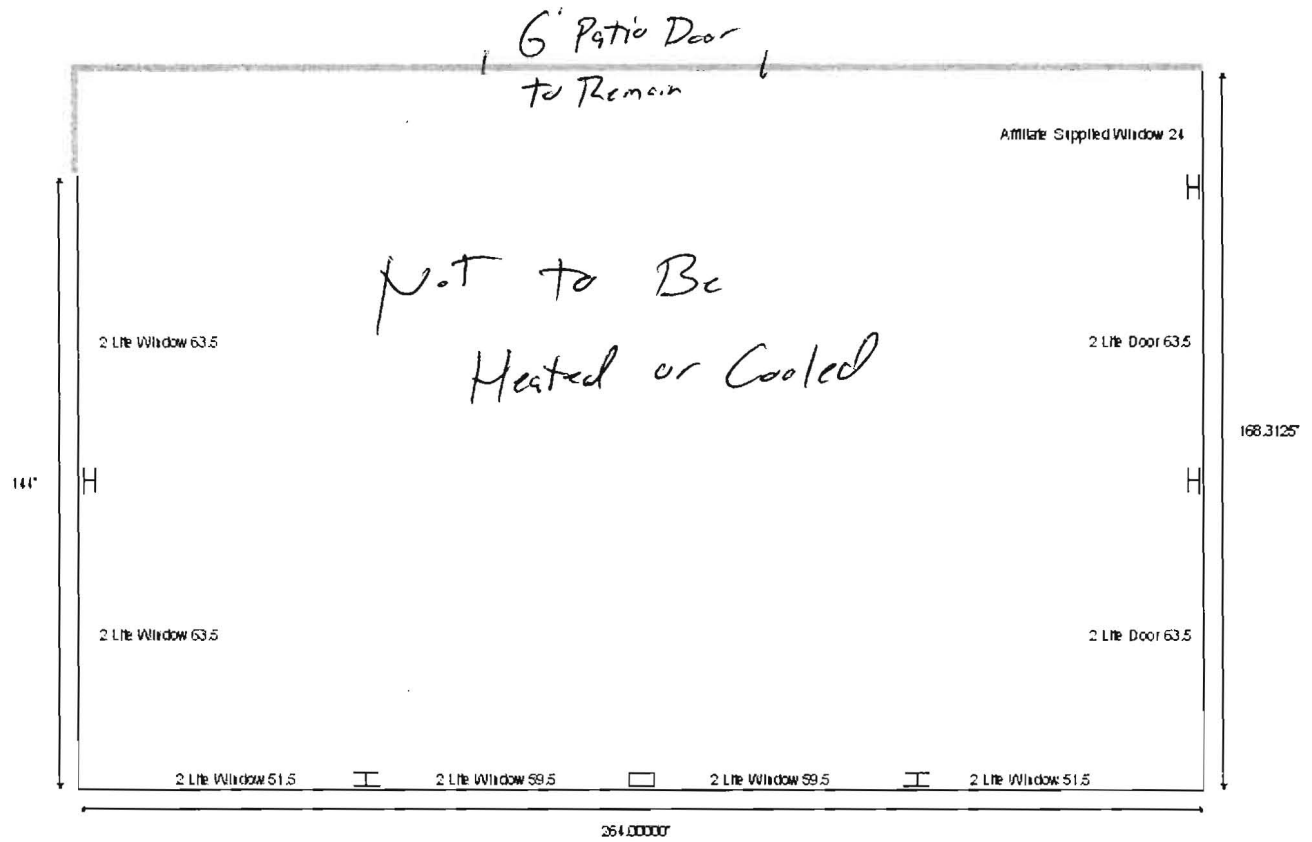
EX. WELL

A=32.88

Location of
Proposed patio
14' x 20' on Existing
Deck NOT to be
Heated or Cooled

ORDER NO: 1291
ITEM: 1
DATE: 11/20/15

Floor Plan

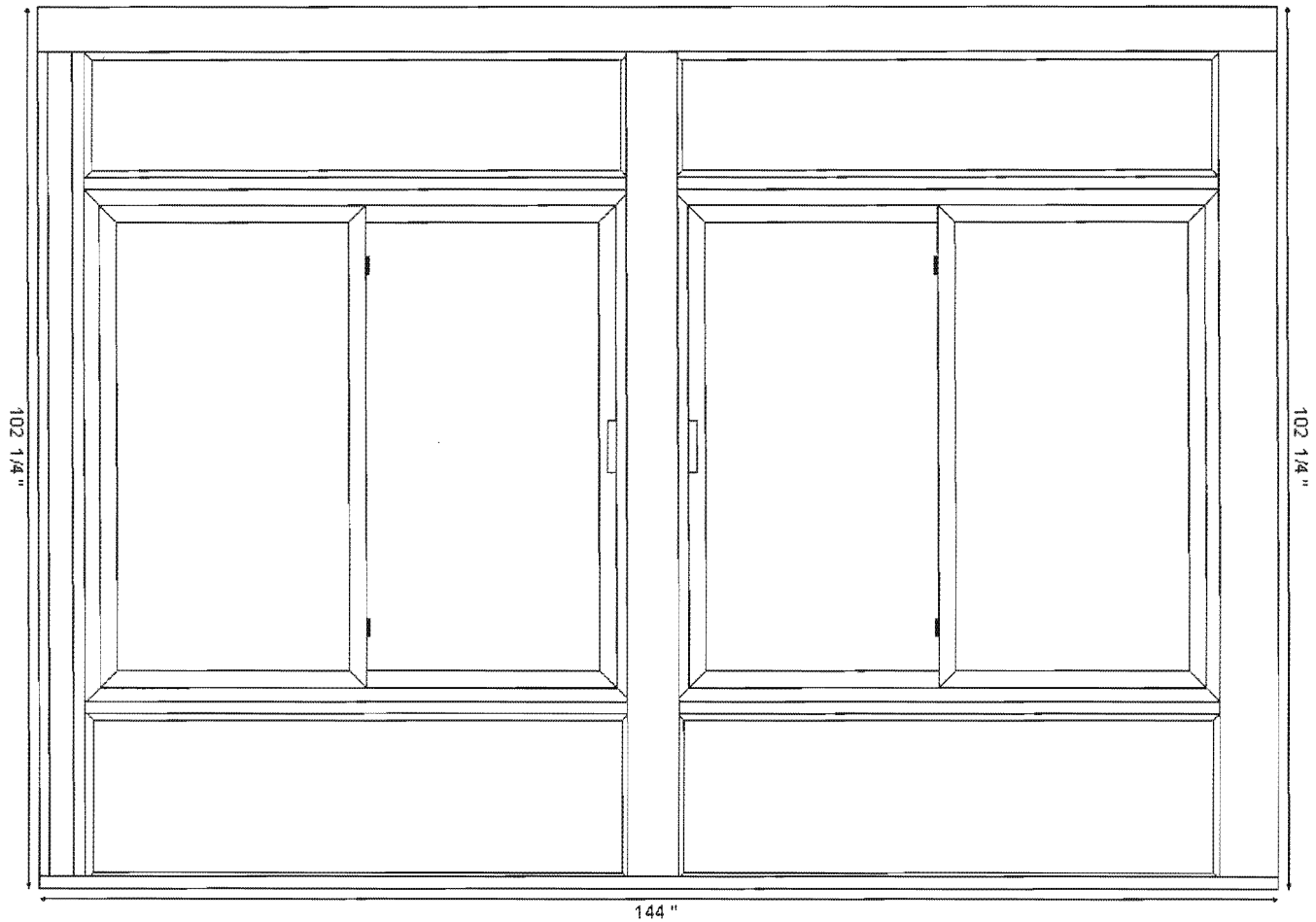


Dimensions

Attachment Height: 132 "
B Wall Height: 102.25 "
B Wall Width: 264 "
A Wall Width: 144 "
C Wall Width: 168.3125 "
Roof Overhang: 12 "

ORDER NO: 1291
ITEM: 1
DATE: 11/20/15

A Wall



Dimensions

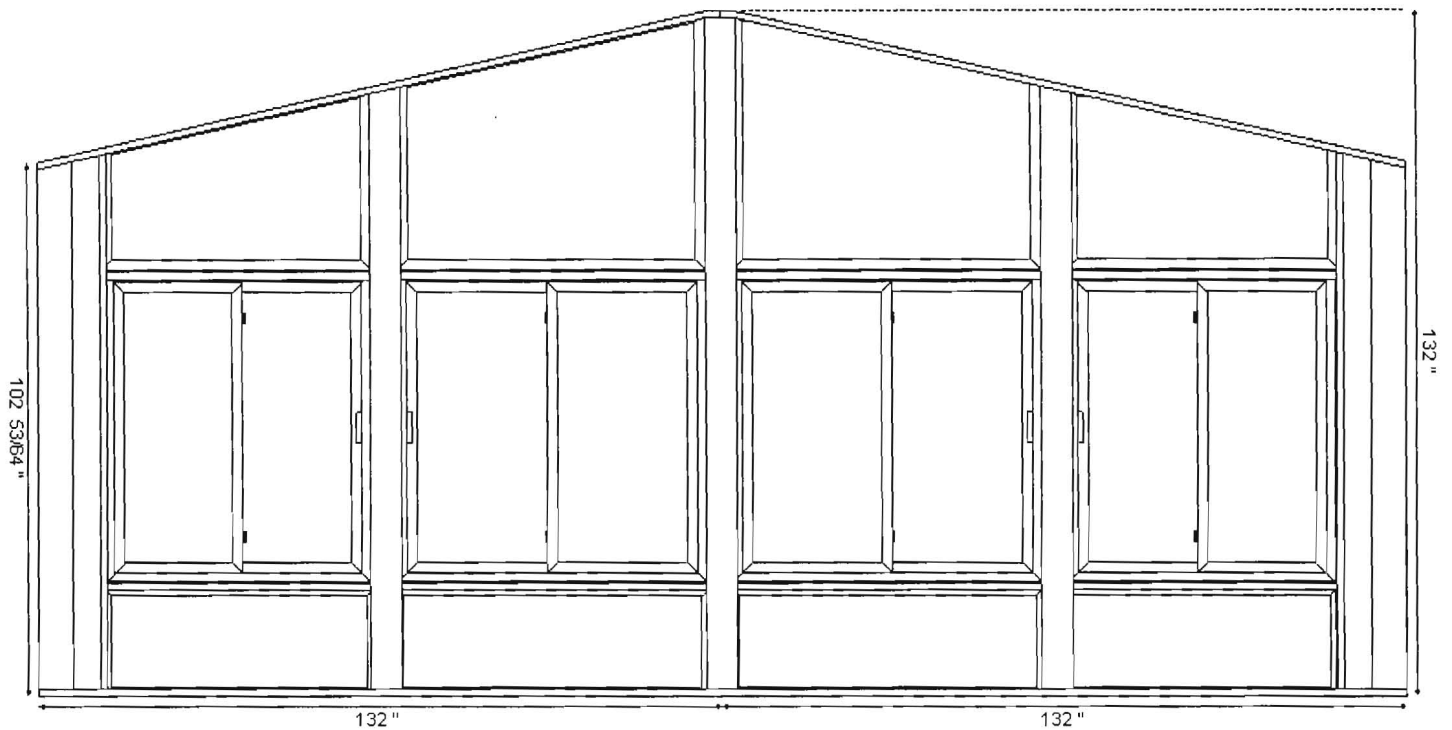
Attachment Height: 132 "
B Wall Height: 102.25 "
A Wall Width: 144 "
Roof Overhang: 12 "

Layout

0.625" (BASE PLATE) + 4.125" (Foam) + 0.625" (WINDOW PLATE) + 63.5" (2 Lite Window) + 5.0625"
(Wall Mullion) + 63.5" (2 Lite Window) + 6.5625" (Corner Post)

ORDER NO: 1291
ITEM: 1
DATE: 11/20/15

B Wall



Dimensions

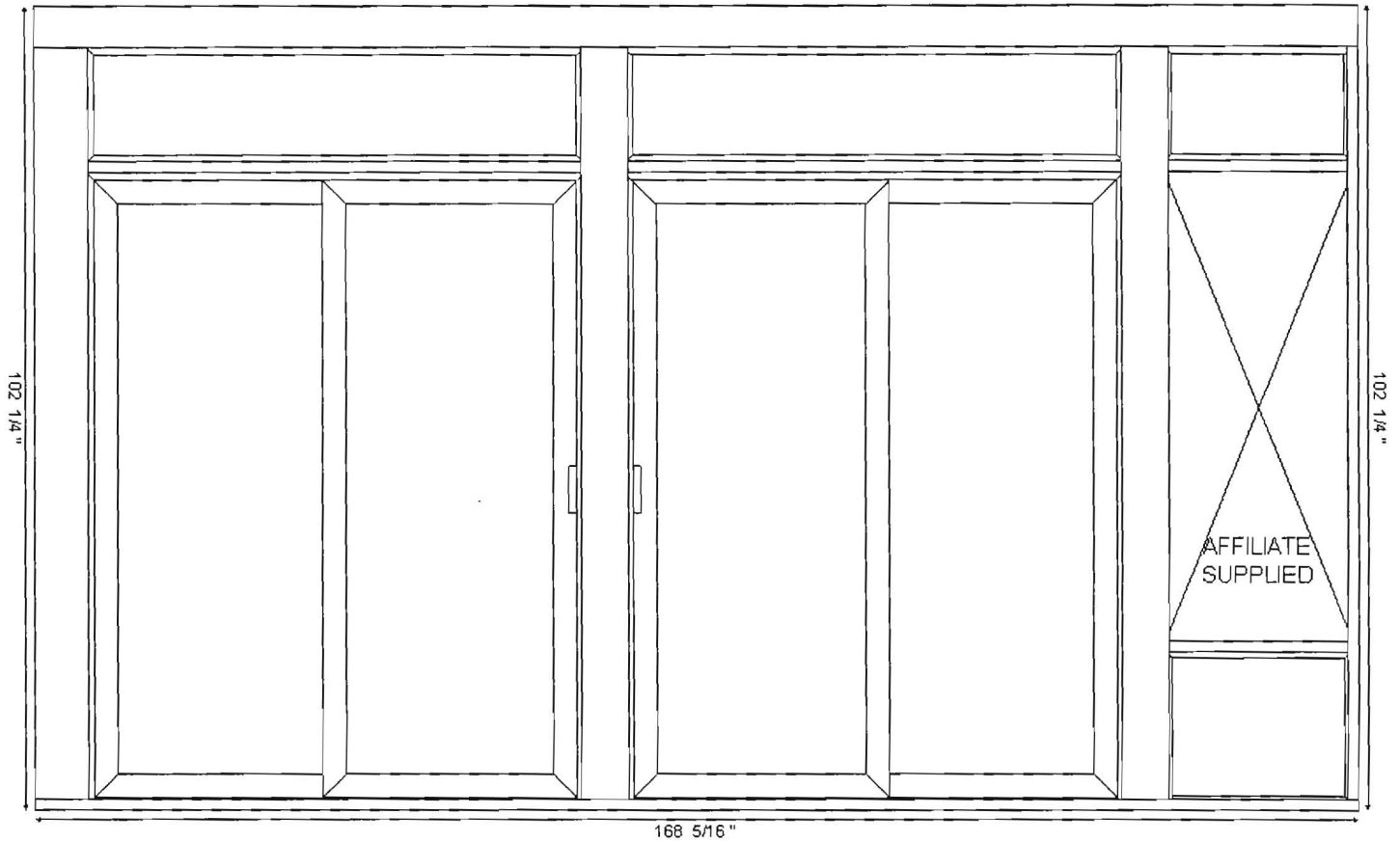
Attachment Height: 132 "
B Wall Height: 102.25 "
B Wall Width: 264 "
Roof Overhang: 12 "

Layout

6.5625" (Corner Post) + 6.2188" (Foam) + 0.625" (WINDOW PLATE) + 51.5" (2 Lite Window) + 5.0625" (Wall Mullion) + 59.5" (2-Lite Window) + 5.0625" (Wall Mullion) + 59.5" (2 Lite Window) + 5.0625" (Wall Mullion) + 51.5" (2 Lite Window) + 0.625" (WINDOW PLATE) + 6.2188" (Foam) + 6.5625" (Corner Post)

ORDER NO: 1291
ITEM: 1
DATE: 11/20/15

C Wall



Dimensions

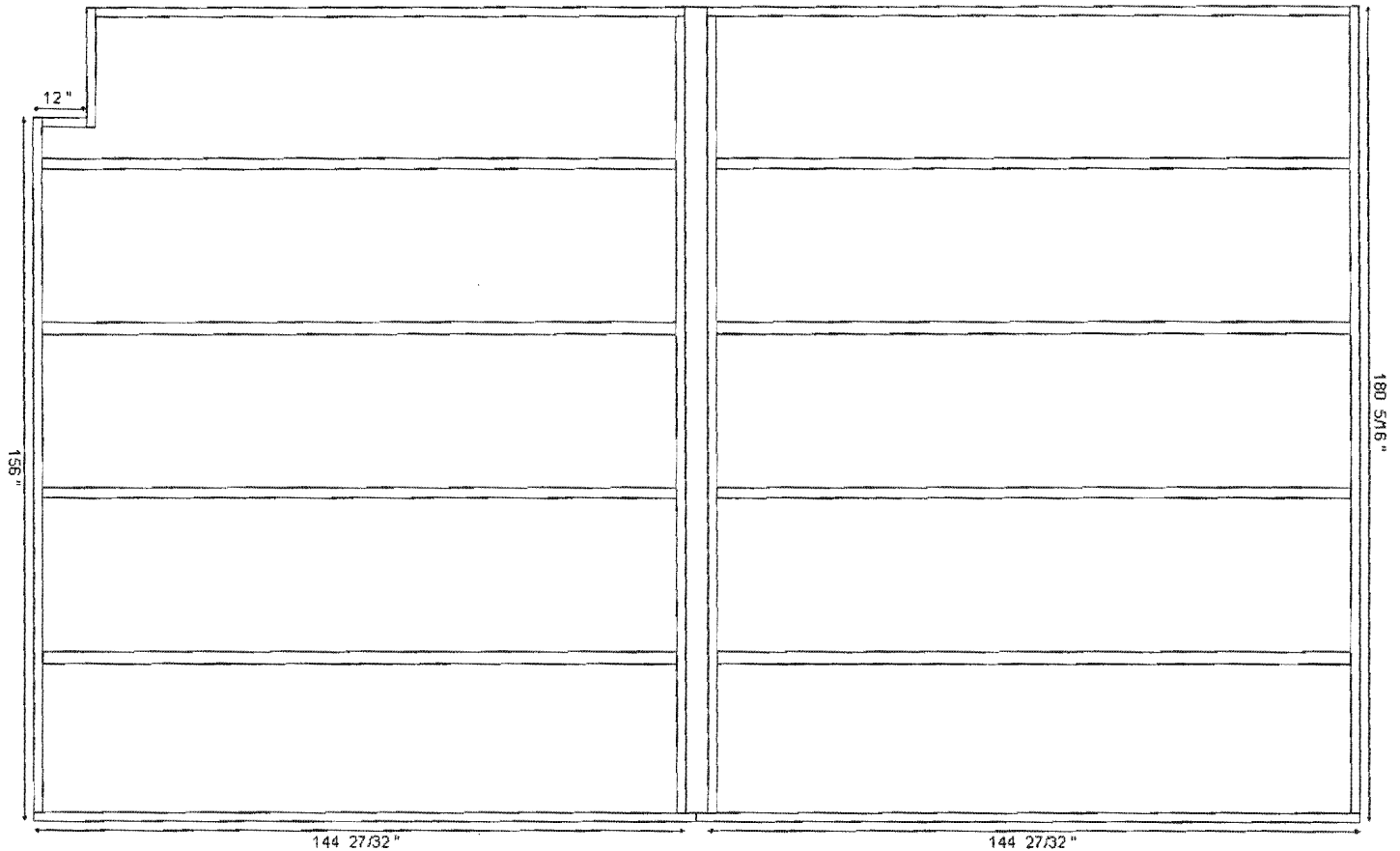
Attachment Height: 132 "
B Wall Height: 102.25 "
C Wall Width: 168.3125 "
Roof Overhang: 12 "

Layout

6.5625" (Corner Post) + 63.5" (2 Lite Door) + 5.0625" (Wall Mullion) + 63.5" (2 Lite Door) +
5.0625" (Wall Mullion) + 24" (Affiliate Supplied Window) + 0.625" (BASE PLATE)

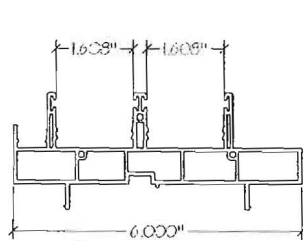
ORDER NO: 1291
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Roof

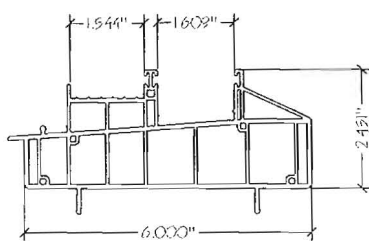


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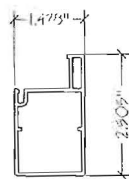
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B Wall Height: 102.25 "
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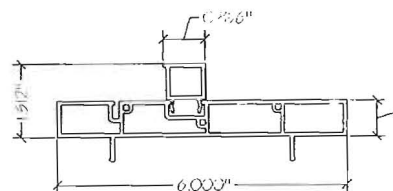
① VINYL FRAME JAMB/ HEAD



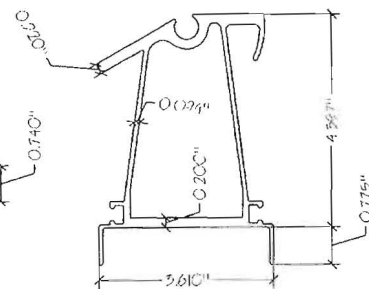
② VINYL FRAME SILL



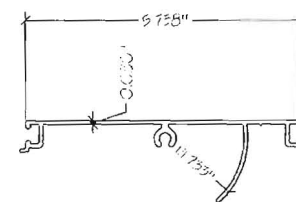
③ VINYL SASH



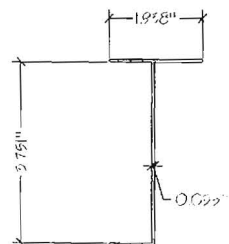
④ TWO PART VINYL TRANSOM



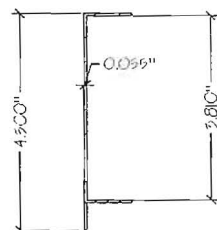
⑤ ALUMINUM HEADER BASE



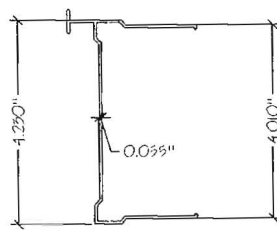
⑥ ALUMINUM HEADER ARM



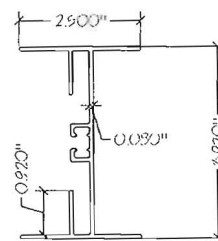
⑦ ALUMINUM 4" SILL



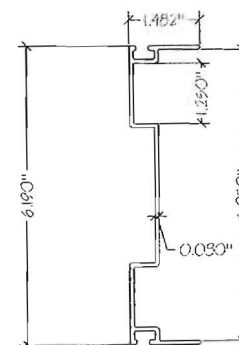
⑧ ALUMINUM 4" F-CHANNEL



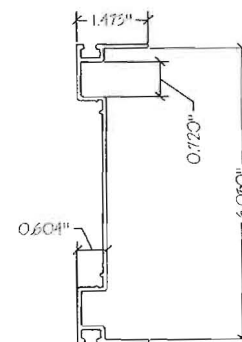
⑨ ALUMINUM 4" HANGER BASE



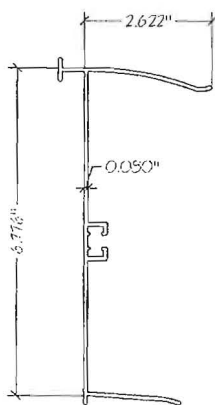
⑩ ALUMINUM 4" I-BEAM



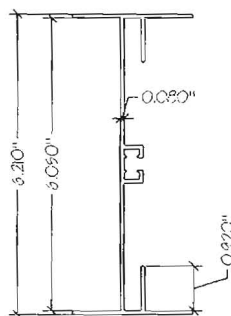
⑪ ALUMINUM FLOOR BASE



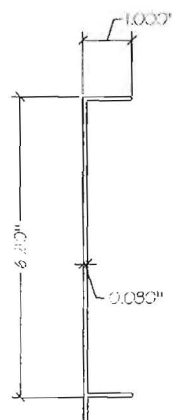
⑫ ALUMINUM GIRT SECTION



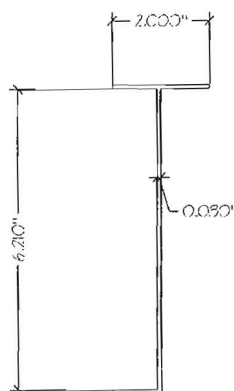
⑬ ALUMINUM 6" HANGER BASE



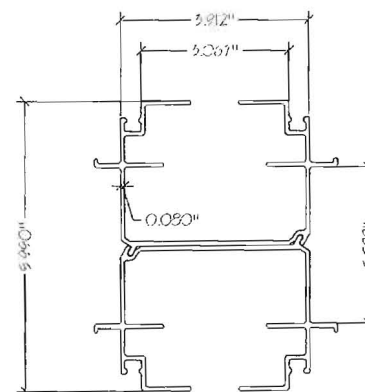
⑭ ALUMINUM 6" I-BEAM



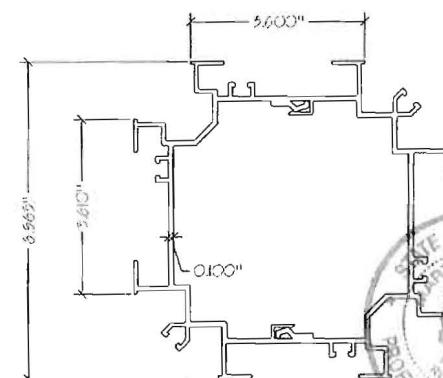
⑮ ALUMINUM 6" F-CHANNEL



⑯ ALUMINUM 6" SILL



⑰ ALUMINUM CENTER MUTTON/ RIDGE POST



⑱ ALUMINUM CORNER POST

CES
CHAMPION ENCLOSURE SUPPLIERS
 12111 CHAMPION WAY, CINCINNATI, OH 45241
 PH: (513) 782-3900 FAX: (513) 782-3903

CHAMPION WINDOWS AND PATIO ROOMS
 6" Wall System with Gable Style Roof

PARTS AND COMPONENTS

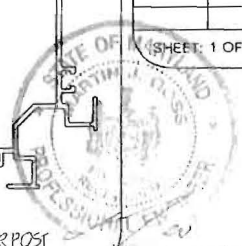
DATE: 11/14/13

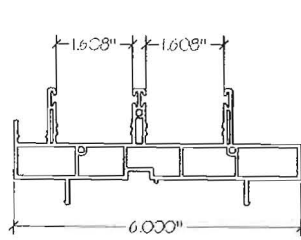
SCALE: NTS

Drawn by: MJG

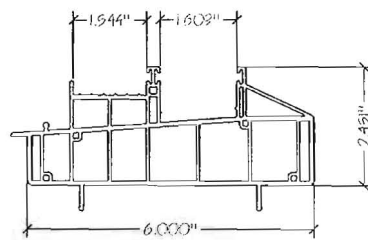
REV: DATE:

SHEET: 1 OF 6

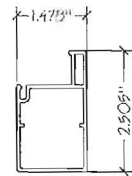




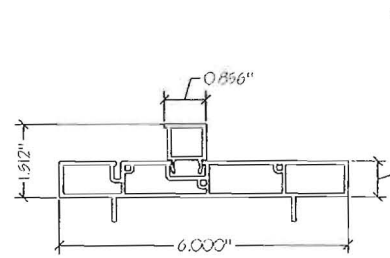
1 VINYL FRAME JAMB/ HEAD



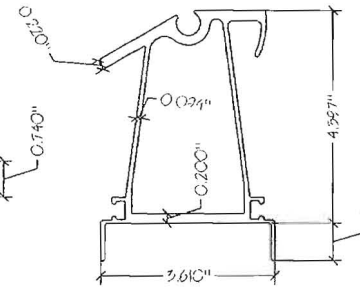
2 VINYL FRAME SILL



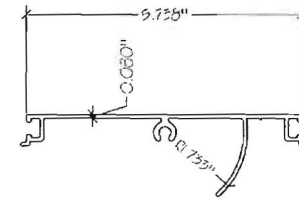
3 VINYL SASH



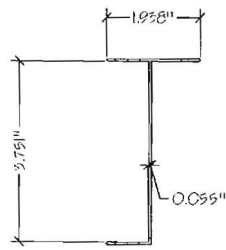
4 TWO PART VINYL TRANSOM



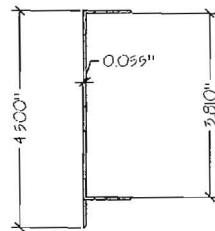
5 ALUMINUM HEADER BASE



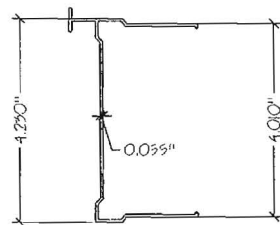
6 ALUMINUM HEADER ARM



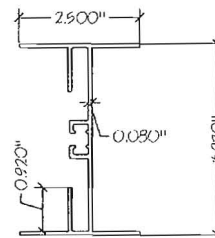
7 ALUMINUM 4" SILL



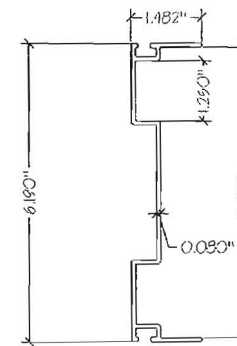
8 ALUMINUM 4" F-CHANNEL



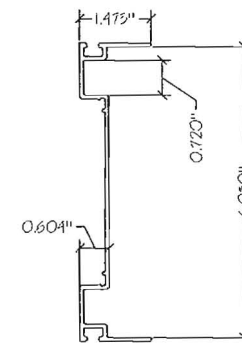
9 ALUMINUM 4" HANGER BASE



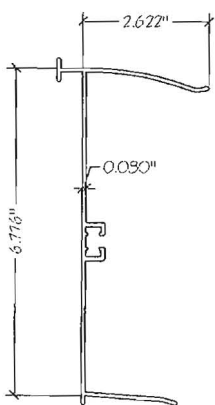
10 ALUMINUM 4" I-BEAM



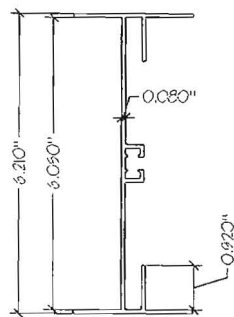
11 ALUMINUM FLOOR BASE



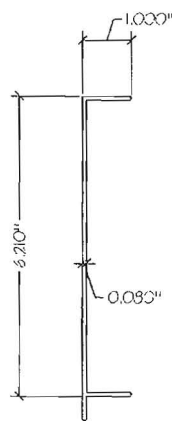
12 ALUMINUM GIRT SECTION



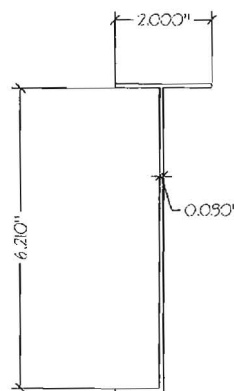
13 ALUMINUM 6" HANGER BASE



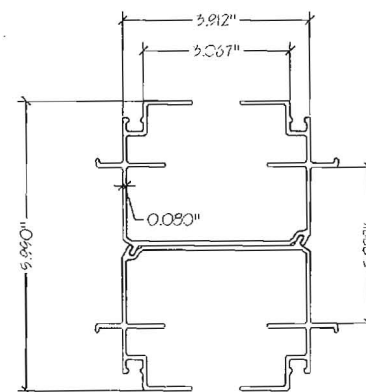
14 ALUMINUM 6" I-BEAM



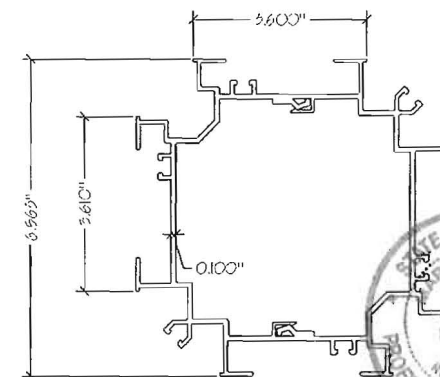
15 ALUMINUM 6" F-CHANNEL



16 ALUMINUM 6" SILL



17 ALUMINUM CENTER MULLION/ RIDGE POST

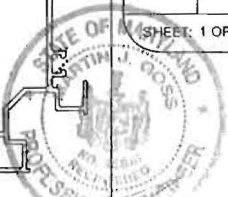


18 ALUMINUM CORNER POST

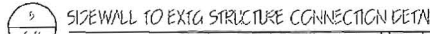
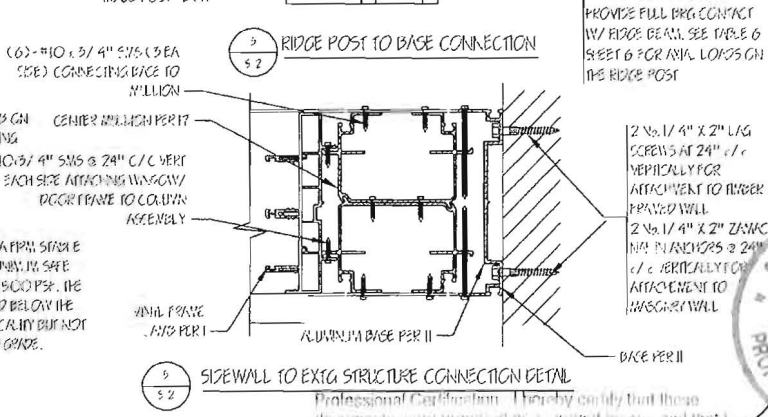
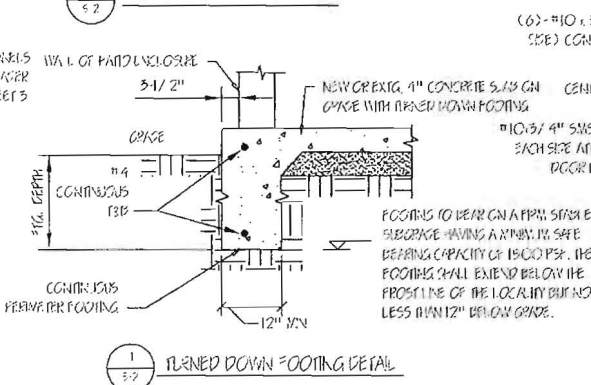
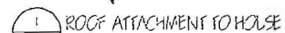
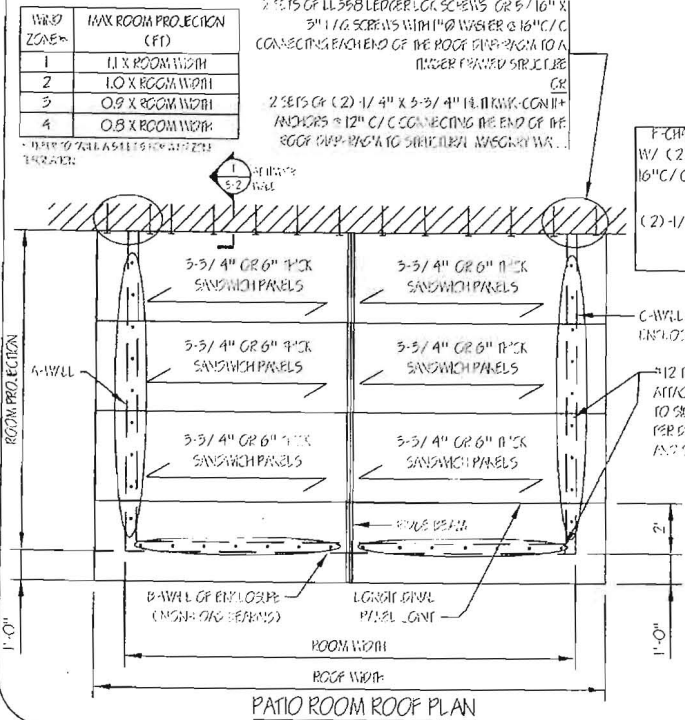
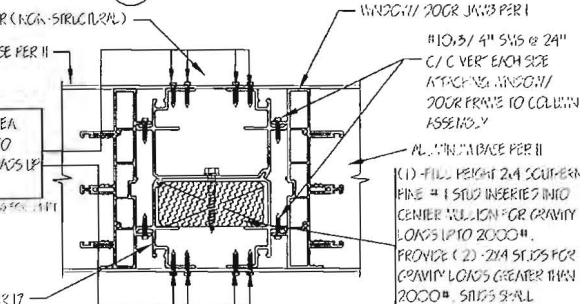
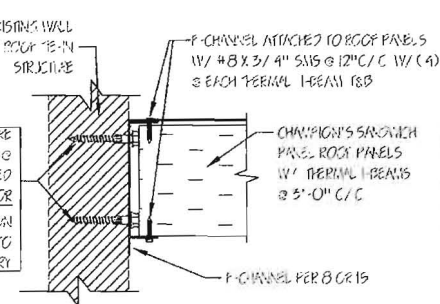
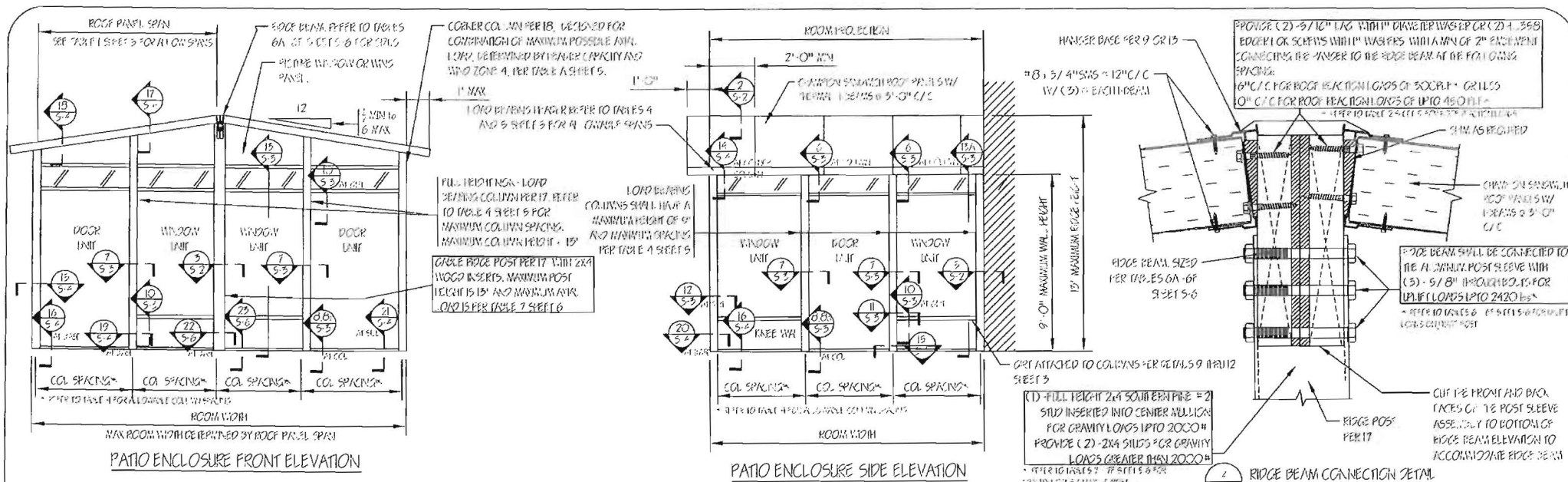
CES
CHAMPION ENCLOSURE SUPPLIERS
12111 CHAMPION WAY, CINCINNATI, OH 45241
PH: (513) 782-3900 FAX: (513) 782-3905

CHAMPION WINDOWS AND PATIO ROOMS
6" Wall System with Gable Style Roof
PARTS AND COMPONENTS

DATE: 11/14/13
SCALE: NTS
Drawn by: MJG
REV: DATE:
SHEET: 1 OF 6



I hereby certify that these documents were drawn, created, reviewed by me, and that I am a duly licensed Professional Engineer under the laws of the State of Ohio.
Signature: 25616 Date: 11/27/14



Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

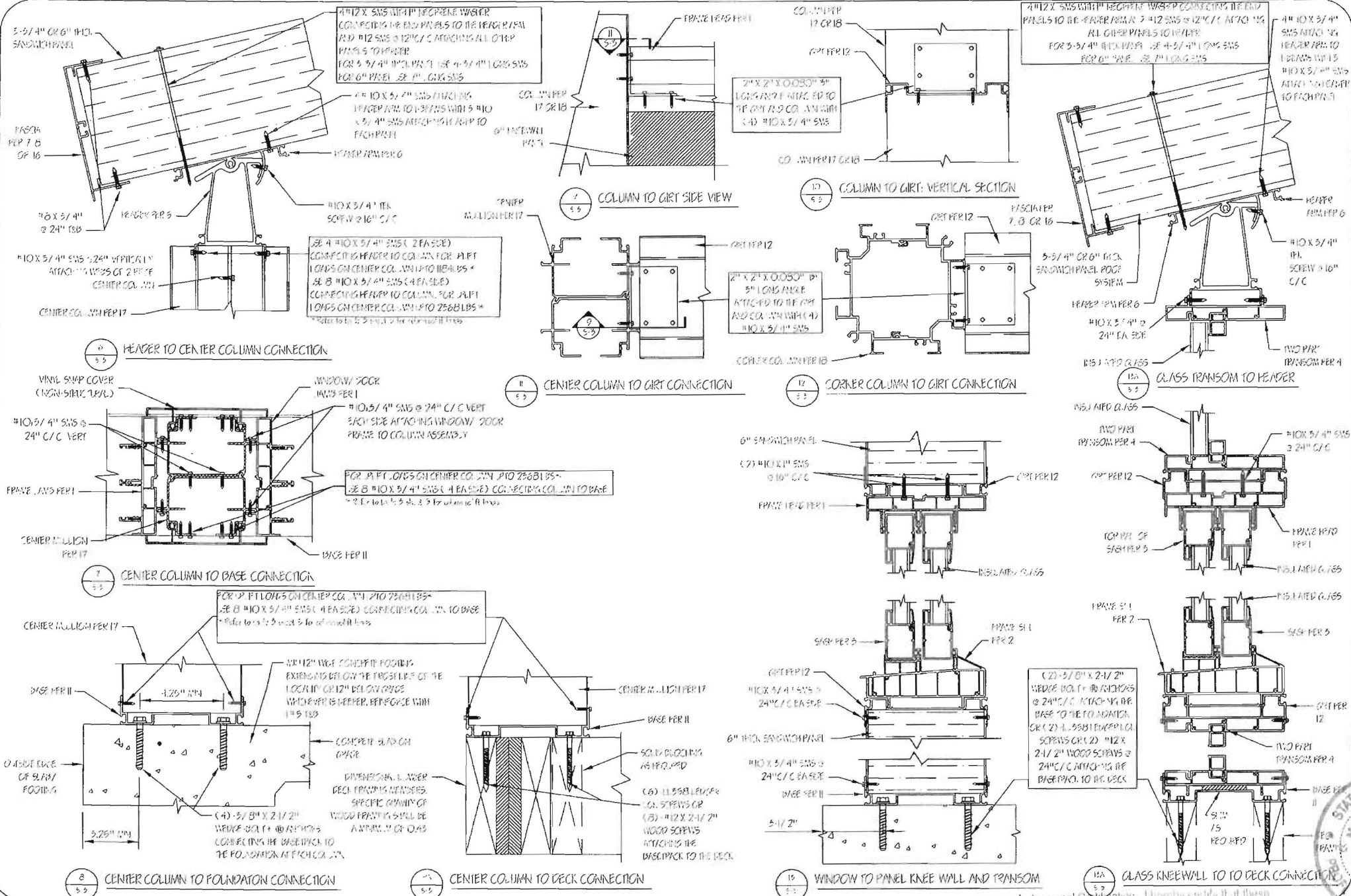
Per. # 25616 Class/Section 11127/H

CES
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PH: (513) 782-3900 FAX: (513) 782-3903

**CHAMPION WINDOWS AND PATIO ROOM
6" Wall System with Gable Style Roof**

DATE: 11/14/13	
SCALE: NTS	
Drawn by: MJG	
REV:	DATE:
SHEET: 2 OF 6	





I hereby certify that these drawings were prepared or prepared by me, and that I am duly licensed or employed under the laws of the State of Maryland.

7546

11/27/14

TABLE A: WIND ZONE DESIGNATION BASED ON DESIGN WIND SPEED AND EXPOSURE					
DESIGN WIND SPEED	115 MPH RISK CAT II	130 MPH RISK CAT II	140 MPH RISK CAT II	150 MPH RISK CAT II	
ALLOWABLE WIND PRESSURE	90 MPH	100 MPH	110 MPH	120 MPH	
EXP.	WIND ZONE 1	WIND ZONE 2	WIND ZONE 3	WIND ZONE 4	
EXP.	WIND ZONE 2	WIND ZONE 3	WIND ZONE 4	SPECIAL DESIGN REQUIRED	
EXP.	WIND ZONE 3	WIND ZONE 4	SPECIAL DESIGN REQUIRED	SPECIAL DESIGN REQUIRED	

1. EXPOSURE CATEGORIES ARE AS DEFINED IN THE IRC, IBC AND ASCE 7.
2. TABLE APPLIES TO PATIO ROOMS WITH MEAN ROOF HEIGHTS UP TO 50' IN EXPOSURE 3 AND UP TO 15' IN EXPOSURES C AND D. FOR ROOMS IN EXPOSURE CATEGORIES C AND D WITH MEAN ROOF HEIGHTS WITH MEAN ROOF HEIGHTS BETWEEN 15' AND 50' THE NEXT HIGHER WIND ZONE DESIGNATION SHALL BE SELECTED OR A SITE SPECIFIC DESIGN WILL BE UTILIZED.
3. SITE SPECIFIC DETERMINATION OF WIND PRESSURES IS REQUIRED FOR SITES ON ISOLATED HILLS, RIDGES OR ESCARPMENTS THAT ARE PRONE TO WINDS FROM THE GENERAL TOPOGRAPHY OF THE AREA.

TABLE 2: APPLIED GRAVITY AND UPLIFT ROOF LOADS (PLF) ON ROOF PANEL SUPPORTS													
PANEL SPAN (FT)	ROOF LINE / SNOW LOAD (PSF)										WIND ZONE *		
	20	25	30	35	40	45	50	55	60	70	1	2	3
10	158	168	178	228	258	288	318	348	378	438	-120	-148	-179
12	161	176	221	266	301	336	371	406	441	511	-132	-163	-197
14	164	224	264	304	344	384	424	464	504		-143	-176	-213
16	207	292	297	342	387	432					-155	-192	-232
18	230	280	330	380							-166	-206	-250
20	253	308									-178	-220	-266

1. TABLE APPLIES TO ROOF LINE OF THE STANDARD ROOF WALL FOR ROOF WALLS WITH MEAN ROOF HEIGHTS UP TO 50' IN EXPOSURE 3 AND UP TO 15' IN EXPOSURES C AND D.
2. * SEE NOTE 1 & 2 FOR WIND ZONE DESIGNATION.

TABLE 4: ALLOWABLE COLUMN SPACING BASED ON DOOR / WINDOW UNIT CAPACITY				
WIND ZONE	1	2	3	4
ALLOWABLE COLUMN SPACING	96"	88"	76"	72"

* SEE NOTE 1 & 2 FOR WIND ZONE DESIGNATION.

TABLE 5: ALLOWABLE APPLIED LOADS ON BEAM (PLF)			
BEAM SPAN	82"	83"	94"
MAX APPLIED LOAD ON BEAM (PLF)	345	474	418

* SEE NOTE 1 & 2 FOR WIND ZONE DESIGNATION.

TABLE 1: ALLOWABLE SANDWICH ROOF PANEL SPANS (FT-IN)												
PANEL THICKNESS (IN)	ROOF SNOW LOAD (PSF)											
	20	20	25	30	35	40	45	50	55	60	70	
3-3/4"	17'-4"	16'-8"	15'-9"	14'-9"	13'-7"	12'-10"	12'-2"	11'-8"	11'-0"	10'-7"	9'-10"	
6"	20'	20'	19'-2"	17'-7"	16'-4"	15'-4"	14'-6"	13'-9"	13'-2"	12'-8"	11'-8"	

ROOF DEFLECTION CRITERIA = L/120

1. IF ALLOWABLE SPANS ARE BASED ON UNIFORM SNOW LOADING CONDITIONS.
2. FOR G33 ROOF PANELS WITH ASBESTOS SHEET, THE INTR. ROOF LOAD FOR THIS SHEET SHALL EQUAL THE DESIGN SNOW / ROOF LINE LOAD + 5 PSF.

TABLE 3: UPLIFT LOADS ON CENTER COLUMN (POUNDS)					
PANEL SPAN (FT)	COLUMN SPACING (INCHES)	WIND ZONE *			
		1	2	3	4
10'	60"	596	736	890	1060
	78"	776	959	1160	1380
	82"	897	1107	1340	1593
	96"	997	1181	1444	1744
12'	60"	692	809	974	1159
	78"	850	1050	1269	1510
	82"	981	1211	1465	1743
	96"	1047	1292	1566	1866
14'	60"	709	874	1058	1259
	78"	823	1039	1279	1540
	82"	966	1216	1482	1785
	96"	1125	1401	1701	2041
16'	60"	768	948	1147	1364
	78"	1000	1235	1494	1778
	82"	1155	1425	1726	2094
	96"	1335	1622	1944	2344
18'	60"	826	1020	1254	1469
	78"	1077	1350	1609	1914
	82"	1244	1556	1856	2211
	96"	1327	1659	1999	2399
20'	60"	894	1092	1321	1572
	78"	1153	1423	1721	2049
	82"	1332	1644	1989	2367
	96"	1421	1754	2144	2544

* SEE NOTE 1 & 2 FOR WIND ZONE DESIGNATION.

GENERAL NOTES AND SPECIFICATIONS

1. THE STRUCTURAL DESIGN FOR CHAMPION PATIO ROOMS HAS BEEN PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF 2006, 2009 AND 2012 EDITIONS OF THE IRC AND IBC CODES, 2010 AND 2012 IBC, 2010 NEW YORK STATE BUILDING CODE, 2007 AND 2012 NORTH CAROLINA BUILDING CODE, BUILD OF THE MASSACHUSETTS RESIDENTIAL CODE AND ILLINOIS THE FOLLOWING REFERENCED STANDARDS: 2006 AND 2010 EDITIONS OF ASCE 7, 2005 AND 2010 ALUMINUM DESIGN MANUAL, 2006 AND 2012 IBC FOR WOOD, THE PATIO ROOMS COVER THE DESIGN OF THE PATIO ROOM AND ITS CONNECTION TO THE EXISTING STRUCTURE. THE STRUCTURAL ANALYSIS OF THE EXISTING STRUCTURE TO SUPPORT THE TRANSFERRED LOADS IS BEYOND THE SCOPE OF THIS PACKAGE AND SHOULD BE VERIFIED BY OTHERS.
2. THE SNOW LOAD TABLES PRESENTED IN THIS PACKAGE ARE FOR UNIFORM ROOF SNOW LOADS. CONCENTRATION SHALL BE GIVEN TO THE SPECIFIC CONDITIONS SUCH AS SLIDING, DRIFTING OR UNBALANCED SNOW LOADS.
3. BASIC WIND SPEEDS ARE 5-SECOND GUST AT 33 FT ABOVE THE GROUND IN EXPOSURE C.
4. SEISMIC DESIGN FOR ROOMS CONSIDERED IN SEISMIC DESIGN CATEGORIES P2 WITH UNIFORM ROOF SNOW LOADS UP TO 30 PSF HAS BEEN CONSIDERED IN THIS PACKAGE. A SITE SPECIFIC SEISMIC EVALUATION IS REQUIRED FOR ENCLOSURES IN SOFT OR FIRM WITH DESIGN ROOF SNOW LOADS IN EXCESS OF 30 PSF.
5. THE PATIO ROOM PROTECTION SHALL BE A MAXIMUM OF 11 TIMES THE PATIO ROOM WIDTH.
6. CHAMPION PATIO ENCLOSURES CAN BE CONSIDERED ON REINFORCED CONCRETE FOUNDATIONS. THE DESIGN LOADS HAVE BEEN PROVEN BY ENGINEERING TO SAFELY CARRY THE ENCLOSURE'S AND THE DECK'S DESIGN LOADS.
7. THE DOOR AND WINDOW UNITS USED IN THE CHAMPION PATIO ROOM SYSTEM, SUPPLIED BY ENCLOSURE SUPPLIERS LLC, ARE GLAZED WITH FULLY REINFORCED INSULATED GLASS CONFORMING TO THE REQUIREMENTS OF ANSI Z97.1 AND CPSC 16 CFR 1201 CATEGORY II. IN WIND Borne DEBRIS REGIONS GLAZED OPENINGS SHALL BE PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING CODE.
8. PERMANENT PROPERTIES:
WINDOW AND DOOR U-VALUE = 0.30 Btu/h·ft²·°F
WINDOW SGC = 0.25
DOOR SGC = 0.28
6" THICK SANDWICH PANEL R-VALUE = 26 Btu·ft²·°F/ft
3-3/4" THICK SANDWICH PANEL R-VALUE = 17 Btu·ft²·°F/ft

MATERIALS

1. ALL FOOTINGS SHALL BEAR ON LEVEL (MIN. 4 IN) UNDISTURBED SOIL OR IMPROVED ENGINEERING FILL WITH AN ALLOWABLE SOIL BEARING CAPACITY OF 1000 PSF. FOOTINGS SHALL EXTEND BELOW THE PROPOSED GRADE OF THE LOCALITY BUT NOT LESS THAN 12" BELOW GRADE.

CONCRETE

1. ALL CONCRETE SHALL CONFORM TO ALL REQUIREMENTS OF ACI 308 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND WHEN EXPOSED TO THE ENVIRONMENT SHALL HAVE AN AIR-ENRICHED AIR CONTENT OF BETWEEN 4.5% TO 7.0%.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 BOKS REINFORCED BARS AND ASTM A615 WELLS.

STEEL AND ALUMINUM

1. ALL FABRICATIONS SHALL BE AS REQUIRED BY SUPPLIER'S SPECIFICATIONS.
2. ROOF PANELS SHALL BE 3-3/4" OR 6" THICK STANDARD OR G33 SANDWICH PANELS MANUFACTURED BY ENCLOSURE SUPPLIERS LLC. STANDARD ROOF PANELS CONSISTS OF 0.024" THICK ALUMINUM SHEETING (3105 H974). G33 ROOF PANELS CONSISTS OF 0.024" ALUMINUM SHEETING AND 6" G33 COMBINED TOP SHEET AND A 0.024" ALUMINUM SHEETING BOTTOM SHEET. THE CORE FOR ALL PANELS SHALL BE ASTM C578 TYPE II EXPANDED POLYSTYRENE. THE PANELS SHALL BE A MAXIMUM OF 10 FEET (3') WIDE AND SHALL BE SUPPORTED BETWEEN 16" O.C. TO 24" O.C. BEAMS. BE ALLOWABLE PANEL SPAN CHART IN THIS PACKAGE APPLIES TO BOTH THE STANDARD AND G33 ROOF PANELS.

MECHANICAL FASTENERS

1. STEEL NUTS, SCREWS (SWS) SHALL BE STAINLESS STEEL WITH THE AS SCREW HEADS.
2. LAG SCREWS SHALL BE GALVANIZED STEEL "FLAT BOTTOM" SCREWS WITH A MINIMUM TENSILE YIELD STRENGTH OF 60,000 PSI FOR 1/2" DIAMETER AND 40,000 PSI FOR 3/8" AND LARGER DIAMETER. LAG SCREWS SHALL HAVE A MINIMUM EMBEDMENT DEPTH OF 8 X LAG SCREW DIAMETER.
3. WOOD SCREWS SHALL HAVE A MINIMUM TENSILE YIELD STRENGTH OF 80,000 PSI.
4. LUGS OR LUG SCREWS BY FASTENMASTER AND SHALL HAVE A MINIMUM TENSILE YIELD STRENGTH OF 185,000 PSI AND SHALL HAVE A MINIMUM EMBEDMENT OF 2" INTO THE WALK WOOD SUPPORTING MEMBER.
5. ANCHOR BOLTS INTO CONCRETE SHALL BE 1/2" Ø X 2-1/2" WEDGE BOLT ANCHORS BY POWER FASTENERS.
6. PIN ANCHORS SHALL BE ZINC PLATE ANCHORS MANUFACTURED BY POWER FASTENERS, GREENGLASS, OR EQUIVALENT.
7. FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE STAINLESS STEEL OR SHALL BE HOT DIPPED GALVANIZED PER ASTM A153. FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE ASTM A653 CORROS RESISTANT FASTENERS.

I hereby certify that these drawings were prepared by me, and that I am a duly licensed professional engineer under the laws of the State of Ohio.

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CHAMPION WINDOWS AND PATIO ROOM
6" Wall System with Gable Style Roof

DESIGN TABLES AND NOTES

DATE: 11/14/13

SCALE: NTS

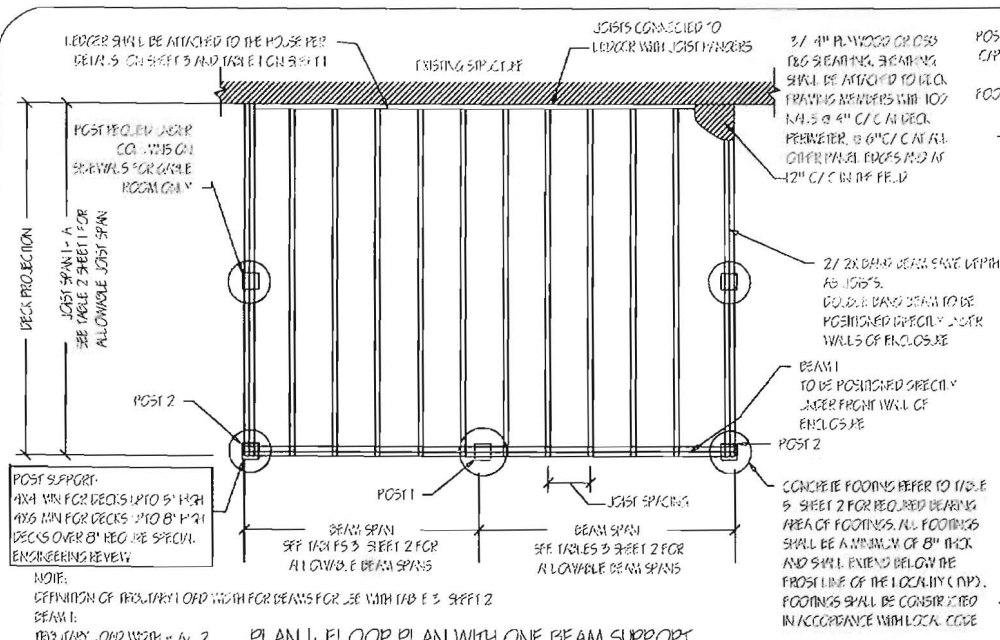
Drawn by: MJG

REV: DATE:
11/14/13

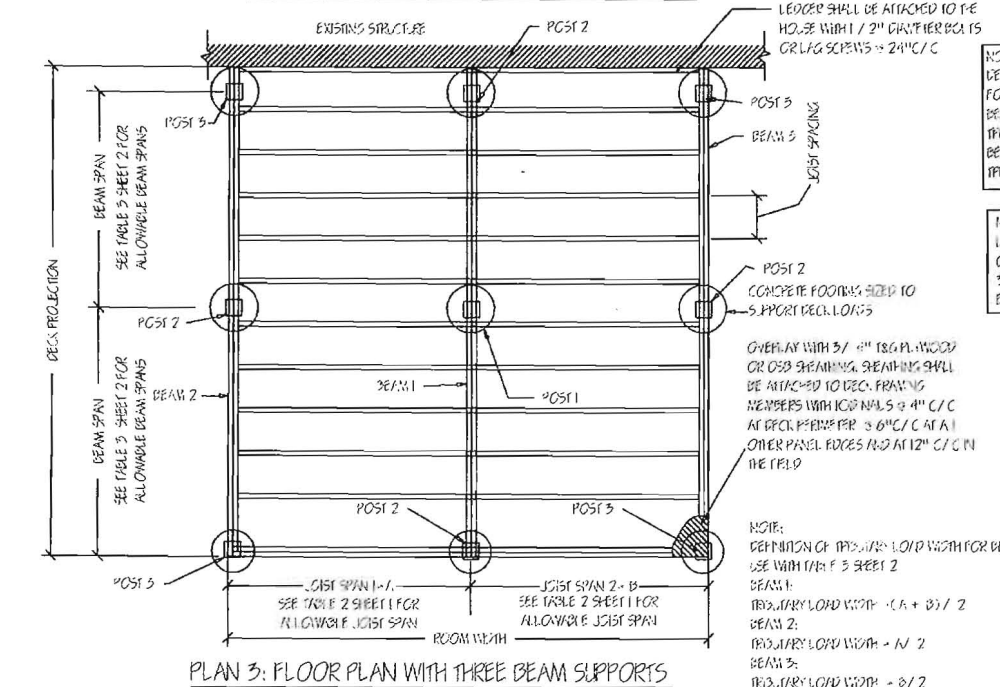


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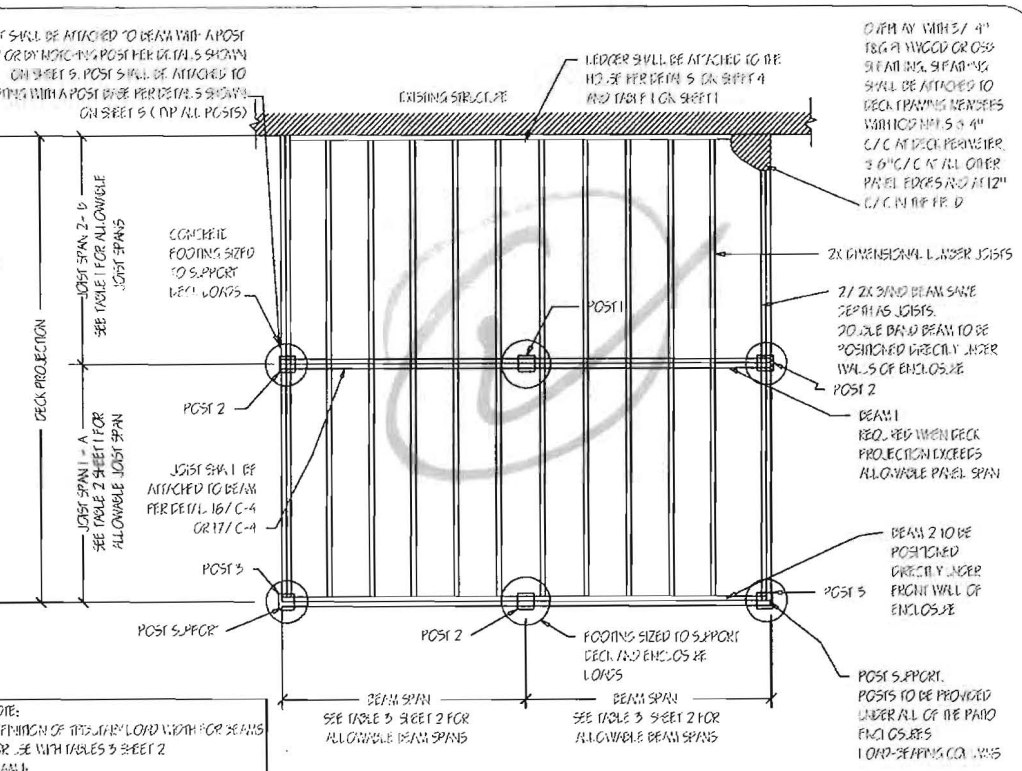
11/27/14



PLAN 1: FLOOR PLAN WITH ONE BEAM SUPPORT



PLAN 3: FLOOR PLAN WITH THREE BEAM SUPPORTS



PLAN 2: FLOOR PLAN WITH TWO BEAM SUPPORTS

NOTE:
DEFINITION OF TEMPORARY LOAD WIDTH FOR BEAMS FOR USE WITH TABLE 3 SHEET 2
BEAM 1:
TEMPORARY LOAD WIDTH = (A + B) / 2
BEAM 2:
TEMPORARY LOAD WIDTH = A / 2

NOTE:
LATERAL BRACING SHALL BE INSTALLED FOR DECKS OVER 4\"/>

TABLE 1: MINIMUM REQUIRED LAG SCREW OR BOLTED CONNECTION BETWEEN 2X LEDGER AND EXISTING STRUCTURE

PANEL SPAN (FT)	DECK LIVE LOAD 40 LBS/ FT ²
7'	(2) - 5/8" @ 24" C/C
8'	(2) - 5/8" @ 16" C/C
9'	(2) - 5/8" @ 16" C/C
10'	(2) - 5/8" @ 16" C/C
12'	(2) - 5/8" @ 16" C/C
14'	(2) - 5/8" @ 16" C/C
16'	(2) - 5/8" @ 16" C/C

TABLE 2: ALLOWABLE JOIST SPANS				
SPECIES	JOIST SIZE	40 PSF LIVE LOAD		
		1'-0"	1'-4"	2'-0"
SOUTHERN PINE No.2	2X6	10'-3"	9'-4"	7'-6"
	2X8	13'-6"	11'-10"	9'-8"
	2X10	16'-2"	14'-0"	11'-4"
DOUG FIR No.2	2X6	10'-1"	10'-6"	13'-5"
	2X8	13'-2"	11'-5"	9'-4"
	2X10	16'-1"	13'-11"	11'-4"
HEM FIR No.2 SPF	2X6	9'-2"	8'-4"	7'-2"
	2X8	12'-3"	11'-1"	9'-1"
	2X10	15'-6"	13'-6"	11'-1"
REDWOOD No.2 WESTERN CEDAR No.2	2X6	10'-2"	15'-8"	12'-0"
	2X8	9'-2"	8'-4"	7'-2"
	2X10	13'-3"	13'-9"	11'-3"
	2X12	14'-4"	16'-0"	13'-0"

I, the undersigned, hereby certify that these specifications were prepared by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

Engineering 21616 Date: 11/27/16

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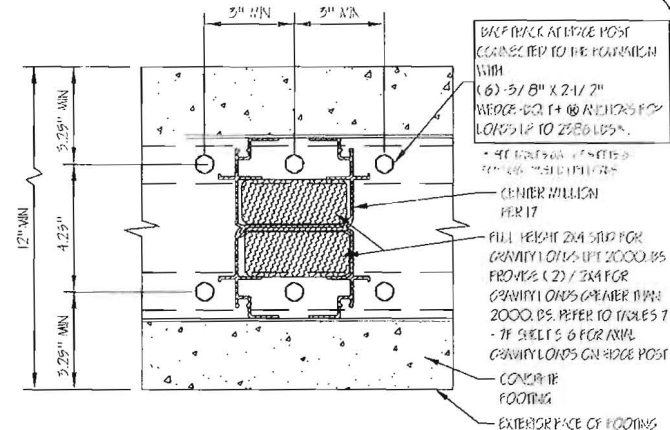
CHAMPION WINDOWS AND PATIO ROOM
PLANS AND DETAILS FOR A
LUMBER DECK SUPPORTING A
CHAMPION PATIO ROOM

DATE: JAN 14, 2014
SCALE: NTS
Drawn by: MIG
REV: DATE:
SHEET: 10/14



ROOM WIDTH (FT)	ROOF LINE / SNOW LOAD (PSF)							WIND ZONE*				
	20	25	30	35	40	50	60	70	1	2	3	4
14	2-2X8 966#	2-2X8 1176#	2-2X8 1536#	2-2X10 1936#	2-2X10 1836#	2-2X12 2226#	2-2X12 2646#	10" LVL 3006#	-1103	-1365	-1651	-1965
16	2-2X8 1104#	2-2X8 1344#	2-2X10 1684#	2-2X10 1824#	2-2X12 2064#	2-2X12 2544#	2-2X12 3024#	10" LVL 3904#	-1189	-1498	-1777	-2114
18	2-2X8 1242#	2-2X10 1512#	2-2X10 1782#	2-2X10 2092#	2-2X12 2522#	2-2X12 2862#	2-2X12 3402#	10" LVL 3942#	-1280	-1581	-1915	-2276
20	2-2X8 1380#	2-2X10 1680#	2-2X10 1980#	2-2X12 2280#	2-2X12 2580#	2-2X12 3180#	2-2X12 3780#	10" LVL 4930#	-1579	-1698	-2034	-2445
24	2-2X10 1656#	2-2X12 2016#	2-2X12 2576#	2-2X12 2736#	2-2X12 3096#	2-2X12 3516#	2-2X12 4536#	10" LVL 4936#	-1560	-1929	-2350	---
28	2-2X12 1932#	2-2X12 2592#	2-2X12 2772#	2-2X12 3192#	2-2X12 3612#	2-2X12 4452#	---	---	-1738	-2146	-2506	---
30	2-2X12 2070#	2-2X12 2520#	2-2X12 2970#	2-2X12 3420#	2-2X12 3870#	---	---	---	-1829	-2259	---	---

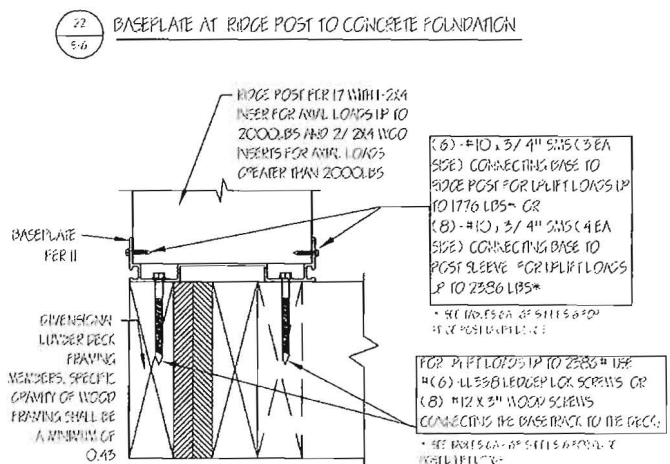
ROOM WIDTH (FT)	ROOF LINE / SNOW LOAD (PSF)							WIND ZONE				
	20	25	30	35	40	50	60	70	1	2	3	4
14	2-2X8 1127#	2-2X10 1572#	2-2X10 1617#	2-2X12 1862#	2-2X12 2107#	2-2X12 2597#	2-2X12 3057#	2-2X12 3577#	-1202	-1484	-1798	-2137
16	2-2X10 1285#	2-2X10 1568#	2-2X12 1848#	2-2X12 2128#	2-2X12 2405#	2-2X12 2968#	2-2X12 3528#	2-2X12 4088#	-1505	-1611	-1949	-2320
18	2-2X10 1443#	2-2X12 1764#	2-2X12 2079#	2-2X12 2394#	2-2X12 2709#	2-2X12 3359#	2-2X12 3969#	2-2X12 4599#	-1409	-1739	-2104	-2504
20	2-2X10 1610#	2-2X12 1960#	2-2X12 2310#	2-2X12 2660#	2-2X12 3010#	2-2X12 3710#	2-2X12 4410#	2-2X12 5110#	-1510	-1855	-2256	---
24	2-2X12 1952#	2-2X12 2352#	2-2X12 2772#	2-2X12 3192#	2-2X12 3612#	2-2X12 4452#	2-2X12 5292#	---	-1708	-2109	-2591	---
28	2-2X12 2294#	2-2X12 2744#	2-2X12 3254#	2-2X12 3724#	2-2X12 4214#	2-2X12 5194#	---	---	-1898	-2345	---	---
30	2-2X12 2415#	2-2X12 2940#	2-2X12 3465#	2-2X12 3930#	2-2X12 4315#	---	---	---	-2008	-2477	---	---



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ROOF LINE / SNOW LOAD (PSF)								WIND ZONE*				
ROOM WIDTH (FT)	20	25	30	35	40	50	60	70	1	2	3	4
14	2-2X12 1285#	2-2X12 1568#	2-2X12 1848#	10" LVL 2128#	10" LVL 2409#	10" LVL 2968#	12" LVL 3528#	12" LVL 4088#	-1309	-1616	-1959	---
16	2-2X12 1472#	2-2X12 1792#	10" LVL 2112#	10" LVL 2432#	10" LVL 2752#	12" LVL 3392#	12" LVL 4032#	12" LVL 4672#	-1422	-1799	-2124	-2527
18	2-2X12 1656#	10" LVL 2016#	10" LVL 2376#	10" LVL 2736#	12" LVL 3096#	12" LVL 3516#	12" LVL 4536#	12" LVL 4936#	-1552	-1892	-2269	---
20	2-2X12 1840#	10" LVL 2240#	10" LVL 2640#	10" LVL 3040#	12" LVL 3440#	12" LVL 4240#	12" LVL 5040#	---	-1640	-2029	-2490	---
24	10" LVL 2208#	10" LVL 2688#	12" LVL 3168#	12" LVL 3648#	12" LVL 4128#	12" LVL 5038#	---	---	-1850	-2289	---	---
28	10" LVL 2576#	10" LVL 3136#	12" LVL 3696#	12" LVL 4256#	12" LVL 4816#	---	---	---	-2090	-2581	---	---
30	10" LVL 2760#	12" LVL 3360#	12" LVL 3960#	12" LVL 4560#	12" LVL 5160#	---	---	---	-2217	---	---	---

ROOM WIDTH (FT)								WIND ZONE*				
ROOF LINE / SNOW LOAD (PSF)												
	20	25	30	35	40	50	60	70	1	2	3	4
14	2-2X12 1449#	10" LVL 1764#	10" LVL 2079#	12" LVL 2394#	12" LVL 2709#	12" LVL 3359#	12" LVL 3969#	14" LVL 4599#	-1415	---	---	---
16	2-2X12 1656#	10" LVL 2016#	12" LVL 2376#	12" LVL 2736#	12" LVL 3096#	14" LVL 3516#	14" LVL 4536#	14" LVL 5256#	-1555	-1894	-2292	---
18	10" LVL 1863#	10" LVL 2268#	12" LVL 2673#	12" LVL 3078#	12" LVL 3483#	14" LVL 4293#	14" LVL 5103#	---	-1651	-2059	-2467	---
20	10" LVL 2070#	12" LVL 2520#	12" LVL 2970#	12" LVL 3420#	12" LVL 3870#	14" LVL 4770#	---	---	-1765	-2179	---	---
24	12" LVL 2494#	12" LVL 3024#	12" LVL 3564#	12" LVL 4104#	12" LVL 4644#	---	---	---	-2012	-2484	---	---
28	12" LVL 2898#	12" LVL 3528#	12" LVL 4158#	14" LVL 4788#	14" LVL 5418#	---	---	---	-2289	---	---	---
30	12" LVL 3105#	12" LVL 3780#	14" LVL 4455#	14" LVL 5130#	14" LVL 5805#	---	---	---	-2428	---	---	---



CHAMPION WINDOWS AND PATIO ROOM
6" Wall System with Gable Style Roof
TABLES AND SECTION DETAILS

ROOM WIDTH (FT)		ROOF LINE / SNOW LOAD (PSF)							WIND ZONE*			
	20	25	30	35	40	50	60	70	1	2	3	4
14	---	---	---	---	---	---	---	---	---	---	---	---
16	10" LVL 1840#	12" LVL 2240#	12" LVL 2640#	12" LVL 3040#	14" LVL 3440#	14" LVL 4240#	14" LVL 5040#	14" LVL 5840#	-1645	---	---	---
18	12" LVL 2070#	12" LVL 2520#	12" LVL 2970#	14" LVL 3420#	14" LVL 3870#	14" LVL 4770#	---	---	-1766	-2180	---	---
20	12" LVL 2300#	12" LVL 2800#	12" LVL 3300#	14" LVL 3800#	14" LVL 4300#	14" LVL 5300#	---	---	-1889	-2327	---	---
24	12" LVL 2760#	14" LVL 3360#	14" LVL 3960#	14" LVL 4560#	14" LVL 5160#	---	---	---	-2186	-2699	---	---
28	12" LVL 3220#	14" LVL 3920#	14" LVL 4620#	14" LVL 5320#	---	---	---	---	-2488	---	---	---
30	12" LVL 3450#	14" LVL 4200#	14" LVL 4950#	14" LVL 5700#	---	---	---	---	---	---	---	---

TABLE 6F: REQUIRED RIDGE BEAM AND APPLIED AXIAL GRAVITY LOADS ON RIDGE POST FOR 20' PROJECTION ROOM								LIFT LOADS ON RIDGE POST FOR 20' PROJECTION ROOM			
ROOM WIDTH (FT)	ROOF LINE / SNOW LOAD (PSF)							WIND ZONE*			
	20	25	30	35	40	50	60	1	2	3	4
14	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---
18	12" LVL 2277#	14" LVL 2772#	14" LVL 3267#	14" LVL 3762#	14" LVL 4257#	---	---	-1676	---	---	---
20	12" LVL 2550#	14" LVL 3050#	14" LVL 3650#	14" LVL 4180#	14" LVL 4750#	---	---	-2055	-2515	---	---
24	14" LVL 3056#	14" LVL 3686#	14" LVL 4366#	14" LVL 5016#	---	---	---	-2561	---	---	---
28	14" LVL 3542#	14" LVL 432#	14" LVL 5032#	---	---	---	---	-2687	---	---	---
30	14" LVL 3795#	14" LVL 4620#	---	---	---	---	---	---	---	---	---

WIND ZONE*	1	2	3	4
15'	5800#	5500#	5100#	4800#

DATE: 11/14/13
 SCALE: NTS
 Drawn by: MJG
 REV: DATE:
 SHEET: 6 OF 6

NOTES ON TABLES 6A-6F

- UPPER ENTRY IN EACH CELL REPRESENTS RIDGE BEAM SIZE.
- LOWER ENTRY IN EACH CELL REPRESENTS GRAVITY LOAD ON RIDGE BEAM SUPPORTS.
- NEGATIVE VALUES REPRESENTS UPLIFT LOAD ON RIDGE BEAM SUPPORTS.
- 2-2X8, 2-2X10 & 2-2X12 SHALL BE SCIENTIFIC METHOD FOR DIMENSIONAL LUMBER.

NOTES ON TABLES 6A-6F (CONT'D)

- 5 LVLs SHALL BE 2 PIECES OF 1.75"X1.5"X12" LAMBY LEVEL PLUS GUST.
6. 10" AND 12" LVL REPRESENTS AN ACQUA 1"X1" DEPTH OF 9.25" AND 11.25" RESPECTIVELY.
- 14" LVL REFERS TO 14" ACQUA DEPTH OF LVL.

NOTES ON TABLES 6A-6F (CONT'D)

8. TABLES INCLUDE THE DEAD LOAD OF THE STANDARD ROOF PANEL, FORMING AND INSULATION. THEREBY VERIFY THAT THESE PANELS WITH ASPHALT SHINGLES, THE INPUT ROOF LOAD FOR USE CHARTS ON THE PANELS IS 20 PSF.
9. TOTAL LOAD DEFLECTION = L / 240



TABLE 3: MAXIMUM ALLOWABLE BEAM SPANS											
SPECIES	BEAM SIZE	40 PSF LIVE LOAD									
		IRREGULAR LOAD WIDTH (FT)									
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	
SOUTHERN PINE NO.2	2/ 2X6	7'-1"	6'-4"	5'-9"	5'-4"	5'-0"	4'-8"	---	---	---	
	2/ 2X8	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"	5'-8"	5'-4"	5'-2"	
	2/ 2X10	10'-8"	9'-6"	8'-9"	8'-0"	7'-6"	7'-1"	6'-9"	6'-4"	6'-2"	
	2/ 2X12	12'-6"	11'-3"	10'-3"	9'-6"	8'-10"	8'-4"	7'-11"	7'-6"	7'-3"	
	4X6	7'-8"	6'-10"	6'-3"	5'-9"	5'-4"	5'-1"	4'-10"	4'-6"	4'-4"	
	4X8	10'-2"	9'-1"	8'-4"	7'-8"	7'-2"	6'-9"	6'-4"	6'-1"	5'-10"	
	4X10	12'-1"	10'-10"	9'-0"	9'-1"	8'-6"	8'-0"	7'-8"	7'-3"	7'-0"	
	4X12	14'-3"	12'-9"	11'-6"	10'-8"	10'-0"	9'-6"	9'-0"	8'-6"	8'-2"	

TABLE 3: MAXIMUM ALLOWABLE BEAM SPANS											
SPECIES	BEAM SIZE	40 PSF LIVE LOAD									
		IRREGULAR LOAD WIDTH (FT)									
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	
REDWOOD NO.2 / WESTERN CEDAR NO.2	2/ 2X6	6'-9"	6'-0"	5'-6"	5'-1"	4'-9"	4'-6"	---	---	---	
	2/ 2X8	8'-6"	7'-8"	7'-0"	6'-4"	6'-0"	5'-9"	5'-4"	5'-2"	4'-11"	
	2/ 2X10	10'-4"	9'-4"	8'-6"	7'-11"	7'-4"	7'-0"	6'-8"	6'-3"	6'-0"	
	2/ 2X12	12'-2"	10'-9"	9'-11"	9'-2"	8'-7"	8'-1"	7'-8"	7'-4"	7'-0"	
	4X6	7'-4"	6'-6"	5'-11"	5'-6"	5'-2"	4'-10"	4'-6"	4'-5"	---	
	4X8	9'-6"	8'-6"	7'-10"	7'-5"	6'-10"	6'-4"	6'-1"	5'-10"	5'-6"	
	4X10	11'-10"	10'-6"	9'-8"	9'-11"	8'-4"	7'-10"	7'-5"	7'-1"	6'-10"	
	4X12	13'-9"	12'-4"	11'-3"	10'-4"	9'-9"	9'-2"	8'-8"	8'-3"	7'-11"	

TABLE 3: MAXIMUM ALLOWABLE BEAM SPANS											
SPECIES	BEAM SIZE	40 PSF LIVE LOAD									
		IRREGULAR LOAD WIDTH (FT)									
		4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	
DOUG FIR NO.2 / SPF NO.2 / HEM FIR NO.2	2/ 2X6	6'-4"	5'-7"	5'-2"	4'-9"	---	---	---	---	---	
	2/ 2X8	8'-5"	7'-7"	6'-11"	6'-4"	6'-0"	5'-7"	5'-4"	5'-1"	4'-10"	
	2/ 2X10	10'-4"	9'-3"	8'-4"	7'-10"	7'-3"	6'-10"	6'-6"	6'-3"	5'-11"	
	2/ 2X12	12'-0"	10'-8"	9'-9"	9'-1"	8'-3"	8'-0"	7'-7"	7'-3"	6'-11"	
	4X6	6'-10"	6'-1"	5'-7"	5'-2"	4'-10"	4'-6"	---	---	---	
	4X8	9'-0"	8'-1"	7'-4"	6'-10"	6'-4"	6'-0"	5'-8"	5'-5"	5'-2"	
	4X10	11'-7"	10'-5"	9'-6"	8'-2"	8'-3"	7'-9"	7'-4"	7'-0"	6'-8"	
	4X12	13'-7"	12'-1"	11'-1"	10'-3"	9'-7"	9'-0"	8'-7"	8'-0"	7'-10"	

TABLE 4: AXIAL LOADS ON POSTS FOR 40 PSF LIVE LOAD + 10 PSF DEAD LOAD FROM DECK ONLY

DECK PROJECTION (FT)	AXIAL LOADS ON POST (LBS)													
	DECK WIDTH (FT)													
	10	11	12	13	14	15	16	17	18	19	20	21	22	
10	1250	1375	1500	1625	1750	1875	2000	2125	2250	2375	2500	2625	2750	
11	1375	1515	1650	1785	1925	2065	2200	2335	2475	2615	2750	2885	3025	
12	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	
13	1625	1785	1950	2115	2275	2435	2600	2765	2925	3085	3250	3415	3575	
14	1750	1925	2100	2275	2450	2625	2800	2975	3150	3325	3500	3675	3850	
15	1875	2065	2250	2435	2625	2815	3000	3185	3375	3565	3750	3935	4125	
16	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200	4400	
17	2125	2335	2550	2765	2975	3185	3400	3615	3825	4035	4250	4465	4675	
18	2250	2475	2700	2925	3150	3375	3600	3825	4050	4275	4500	4725	4950	

NOTE:
TABLE 4 SHOWS AXIAL LOADS FOR POSTS AS DETAILED IN PLAN 1, PLAN 2 AND PLAN 3 SHEET 1 FOR ALL PLAN 1 CONFIGURATIONS AND PLAN 2 AND PLAN 3 CONFIGURATIONS WHERE PANEL SPAN A AND B ARE EQUAL.
AXIAL LOADS ON POST 1 = TABULATED VALUES DIVIDED BY TWO
AXIAL LOADS ON POST 2 = TABULATED VALUES DIVIDED BY FOUR
TABLE DOES NOT INCLUDE ENCLOSURE COLUMN LOADS. THESE CAN BE OBTAINED FROM TABLE 4 FOR LOAD BEARING COLUMNS AND FROM THE ENGINEERING PACKAGE FOR THE ROOM FOR RIDGE POST LOADS.

TABLE 5: PATIO ROOM COLUMN AXIAL LOADS (LBS)									
PATIO ROOM ROOF SPAN (FT)	CHAMPION PATIO ROOM LANDING COLUMN SPACING (FT)								
	ROOF LOAD: 20 PSF			ROOF LOAD: 30 PSF			ROOF LOAD: 40 PSF		
	4'	6'	8'	4'	6'	8'	4'	6'	8'
8	460	690	920	660	990	1320	860	1290	1720
10	552	828	1104	792	1188	1584	1032	1548	2064
12	644	966	1288	924	1386	1848	1204	1806	2408
14	736	1104	1472	1056	1584	2112	1376	2064	2752
16	828	1242	1656	1188	1782	2376	1548	2322	3096
18	920	1380	1840	1320	1980	2640	1720	2580	3440
20	1012	1518	2024	1452	2178	2904	1892	2838	3784

- NOTE:
- THE AXIAL LOADS PRESENTED IN THIS TABLE ARE FOR THE LOAD BEARING COLUMNS IN A CHAMPION PATIO ROOM USING CHAMPION'S STANDARD 5/8" X 12" PANEL ROOF ONLY.
 - FOR PATIO ROOMS UTILIZING CHAMPION'S OSB ROOF PANELS, THE INPUT ROOF LOAD VALUE SHALL BE THE DESIGN ROOF SNOW LOAD PLUS 5 PSF.
 - THIS TABLE DOES NOT APPLY TO THE PATIO ROOM RIDGE POST. THE RIDGE POST LOADS SHALL BE DETERMINED FROM THE CHAMPION PATIO ENCLOSURE ENGINEERING PACKAGE.
 - LINEAR INTERPOLATION IS PERMITTED.

TABLE 6: REQUIRED FOOTING SIZE									
ALLOWABLE SOIL BEARING CAPACITY	AXIAL LOADS ON POST (LBS)								
	500	1000	1500	2000	2500	3000	3500	4000	5000
	1000	12"Ø	14"Ø	17"Ø	20"Ø	22"Ø	24"Ø	26"Ø	31"Ø
1500	12"Ø	12"Ø	14"Ø	16"Ø	18"Ø	20"Ø	21"Ø	23"Ø	25"Ø
2000	12"Ø	12"Ø	12"Ø	14"Ø	16"Ø	17"Ø	18"Ø	20"Ø	22"Ø
2500	12"Ø	12"Ø	12"Ø	13"Ø	14"Ø	15"Ø	17"Ø	18"Ø	20"Ø
3000	12"Ø	12"Ø	12"Ø	12"Ø	13"Ø	14"Ø	15"Ø	16"Ø	20"Ø
3500	12"Ø	12"Ø	12"Ø	12"Ø	13"Ø	13"Ø	14"Ø	15"Ø	18"Ø
4000	12"Ø	12"Ø	12"Ø	12"Ø	12"Ø	12"Ø	12"Ø	14"Ø	17"Ø

- NOTE:
- AXIAL LOADS SHALL BE THE COMBINATION OF DECK LOADS FROM TABLE 4 PLUS THE PATIO ENCLOSURE LOADS DETERMINED FROM TABLE 5 FOR LOAD BEARING COLUMNS.
 - RIDGE POST LOADS MUST BE DETERMINED FROM THE ENCLOSURE ENGINEERING PACKAGE.
 - FOOTINGS THAT ARE FOUND LESS THAN 18" BELOW GRADE SHALL BE A MINIMUM OF 18" X 24" X 18".
- I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 2546, Expiration Date: 11/2/14

CES
CHAMPION ENCLOSURE SUPPLIERS
12111 CHAMPION WAY, CINCINNATI, OH 45241
PH: (513) 782-3900 FAX: (513) 782-3903

CHAMPION WINDOWS AND PATIO ROOM
PLANS AND DETAILS FOR A
LUMBER DECK SUPPORTING A
CHAMPION PATIO ROOM

DATE: JAN 14, 2014

SCALE: NTS

Drawn by: MIG

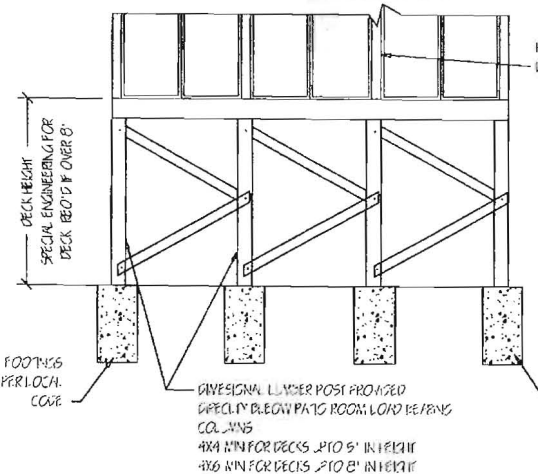
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SHEET: 20/4

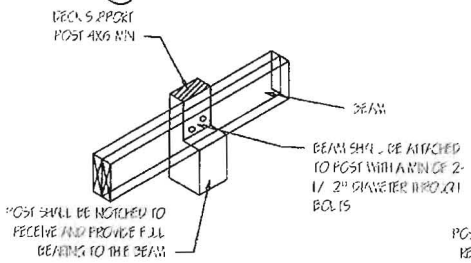


6/12/14

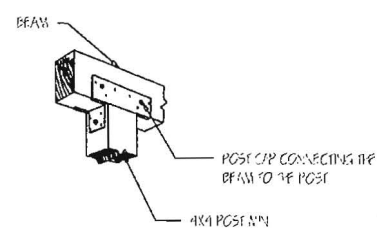
NOTE:
LATERAL BRACING SHALL BE INSTALLED FOR DECKS OVER 4" IN HEIGHT PER THE DETAILS SHOWN ON SHEET 3. DECKS OVER 8" IN HEIGHT PER SPECIAL ENGINEERING.



1 K-BRACING ELEVATION

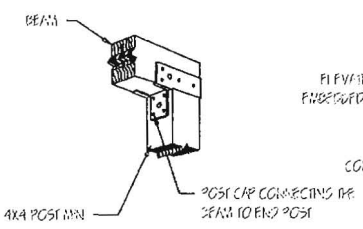


4 POST TO BEAM CONNECTION DETAIL 1

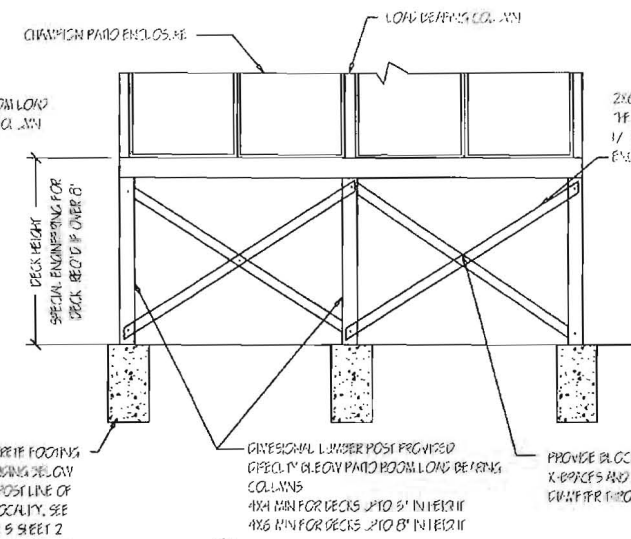


8 POST TO BEAM CONNECTION DETAIL 3

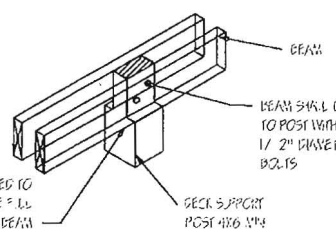
5 POST TO BEAM CONNECTION DETAIL 2



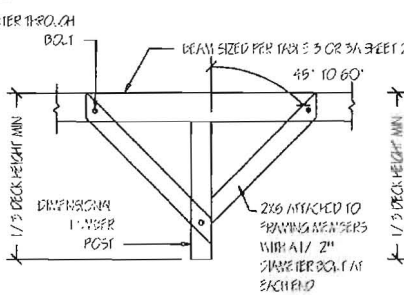
9 END POST TO BEAM CONNECTION DETAIL



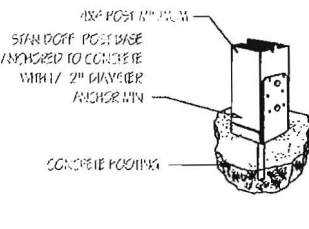
2 X-BRACING ELEVATION



10 POST TO FOOTING CONNECTION DETAIL 1

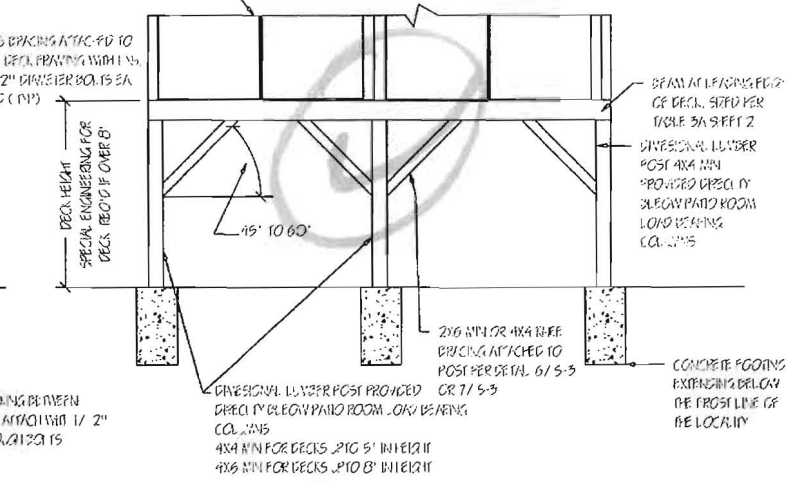


6 KNEE BRACING DETAIL OPTION 1

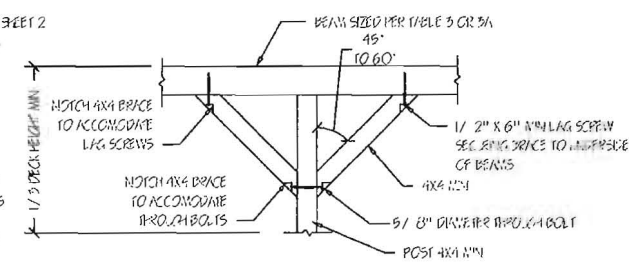


11 POST TO FOOTING CONNECTION DETAIL 2

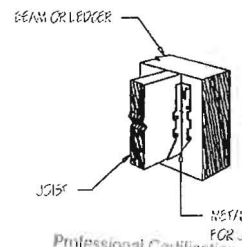
NOTE:
LATERAL BRACING SHALL BE INSTALLED FOR DECKS OVER 4" IN HEIGHT PER THE DETAILS SHOWN ON SHEET 3. DECKS OVER 8" IN HEIGHT PER SPECIAL ENGINEERING.



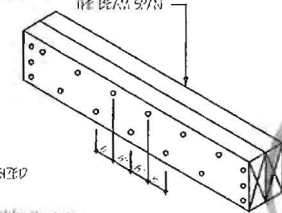
3 KNEE BRACING DETAIL



7 KNEE BRACING DETAIL OPTION 2



12 POST TO HEADER LEDGER CONNECTION DETAIL



13 NAILING PATTERN FOR NAIL LAMINATED BEAMS

CES
CHAMPION ENCLOSURE SUPPLIERS
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CHAMPION WINDOWS AND PATIO ROOM
PLANS AND DETAILS FOR A
LUMBER DECK SUPPORTING A
CHAMPION PATIO ROOM

DATE: JAN 14, 2014
SCALE: NTS
Drawn by: MIG
REV: DATE:
SHEET: 3014



Professional Certification: I hereby certify that these documents were prepared or approved by me or under my direct supervision and I am a duly Licensed Professional Engineer in the State of Maryland.
License No. 25616 Expiration Date 11/27/14

DATE: JAN 14, 2014

SCALE: NTS

Drawn by: MJH

REV: DATE:

SHEET: 4014



GENERAL NOTES AND SPECIFICATIONS

1. THE STRUCTURAL DESIGN FOR THE DECK HAS BEEN PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF 2008, 2009 AND 2012 EDITIONS OF THE IRC AND IRC CODES, 2 AND UNLESS THE FOLLOWING REFERENCED STANDARDS, 2008 AND 2012 EDITIONS OF ASCE 7, 2008 AND 2012 NDS FOR WOOD.
2. THESE PLANS COVER THE DESIGN OF THE DECK AND ITS CONNECTION TO THE EXISTING STRUCTURE. THE STRUCTURAL ADEQUACY OF THE EXISTING STRUCTURE TO SUPPORT THE TRANSFERRED LOADS IS BEYOND THE SCOPE OF THIS PACKAGE AND SHOULD BE VERIFIED BY OTHERS.
3. A MAXIMUM DESIGN HORIZONTAL WIND LOAD OF 30 PSF WAS USED IN THE DESIGN OF THE DECK CONNECTIONS.
4. THE TERM "PATIO ROOM" IN THESE DRAWINGS REFERS SOLELY TO LIGHT GAUGE ALUMINUM FRAME STRUCTURES MANUFACTURED BY CHAMPION ENCLOSURE SUPPLIERS. THESE DRAWINGS ARE ONLY VALID WHEN THE PATIO ROOMS ARE CONSTRUCTED IN ACCORDANCE WITH THE CHAMPION ENCLOSURE SUPPLIERS PATIO ROOM ENGINEERING.

MATERIALS

DIMENSIONAL LUMBER

1. DIMENSIONAL LUMBER SHALL BE DOUGLAS FIR, SOUTHERN PINE, HEA-FIR, SPF, REDWOOD OR WESTERN CEDAR. ALL DIMENSIONAL LUMBER SHALL BE GRADE #2 MINIMUM.
2. DIMENSIONAL LUMBER SHALL BE TREATED FOR PREVENTION OF DECAY AS REQUIRED BY THE GOVERNING CODE OF THE LOCALITY.

SOILS

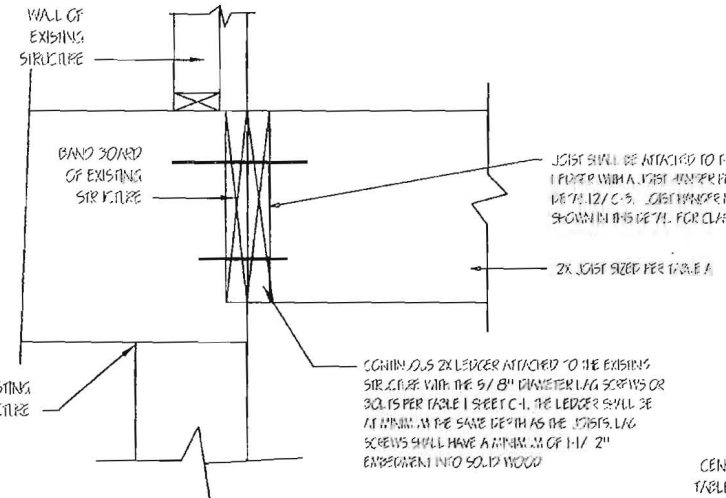
1. ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1/2") UNDISTURBED SOIL OR APPROVED ENGINEERING FILL WITH AN ALLOWABLE SOIL BEARING CAPACITY OF 1000 PSF. FOOTINGS SHALL EXTEND BELOW THE FROST LINE OF THE LOCALITY BUT NOT LESS THAN 12" BELOW GRADE.

CONCRETE

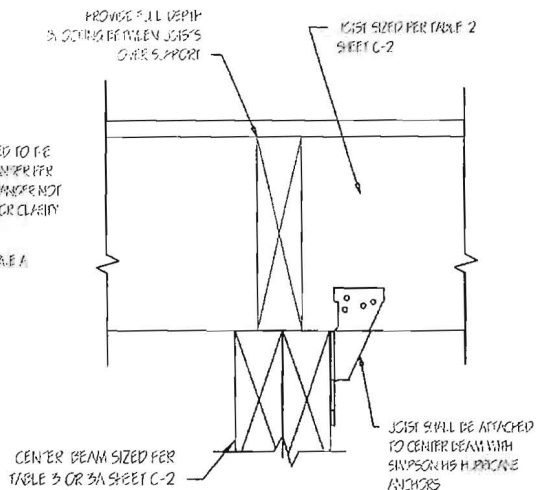
1. ALL CONCRETE SHALL CONFORM TO ALL REQUIREMENTS OF ACI 318 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND WHERE EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL HAVE AN ENTRAINED AIR CONTENT OF BETWEEN 5.0% TO 7.0%.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 60 KSI DEFORMED BARS AND ASTM A955 WESH.

MECHANICAL FASTENERS

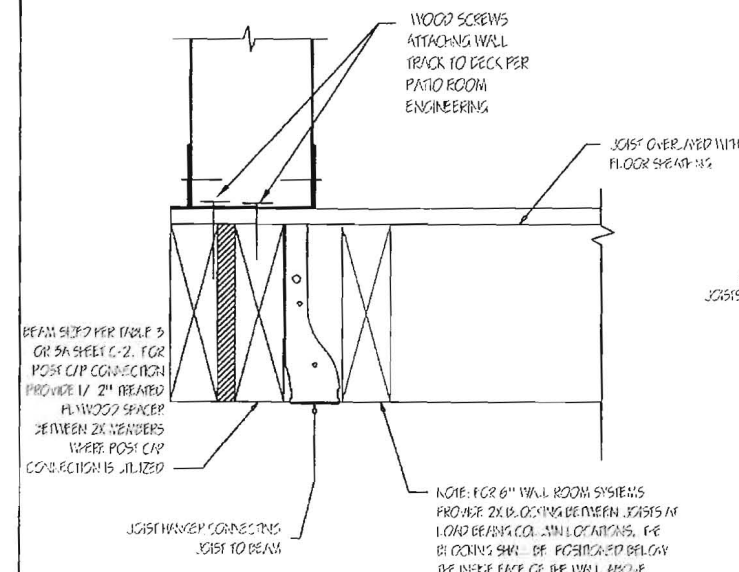
1. SHEET METAL SCREWS (SMS) SHALL BE STAINLESS STEEL WITH TYPE AB SCREW HEADS.
2. LAG SCREWS SHALL BE GALVANIZED STEEL "FULL BODY" SCREWS WITH A MINIMUM BENDING YIELD STRENGTH OF 60,000 PSI FOR 3/8" DIAMETER AND 40,000 PSI FOR 1/2" AND LARGER DIAMETER. LAG SCREWS SHALL HAVE A MINIMUM EMBEDMENT DEPTH OF 8 X LAG SCREW DIAMETER.
3. BOLTS SHALL COMPLY TO ANCH/ISSE STANDARD B18.21-1981. BOLTS SHALL BE FULL DIAMETER BOLTS WITH A BENDING YIELD STRENGTH OF 70,000 PSI.
4. AG SCREWS SHOULD BE GALVANIZED STEEL WITH A MINIMUM BENDING YIELD STRENGTH OF 60,000 PSI.
5. WOOD SCREWS SHALL HAVE A MINIMUM BENDING YIELD STRENGTH OF 80,000 PSI.
6. ALL 5/8" LEDGER LAG SCREWS BY FASTENMASTER AND SHALL HAVE A MINIMUM BENDING STRENGTH OF 183,000 PSI AND SHALL HAVE A MINIMUM EMBEDMENT OF 2" INTO THE MAIN WOOD SUPPORTING MEMBER.
7. ANCHOR BOLTS INTO CONCRETE SHALL BE 3/4" X 2-1/2" WEDGE BOLT+ ANCHORS BY POWERS FASTENERS.
8. FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE STAINLESS STEEL OR SHALL BE HOT DIPPED GALVANIZED PER ASTM A555. HOT DIPPED CONNECTOR PRODUCTS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE ASTM A555 COATING DESIGNATION G-185.



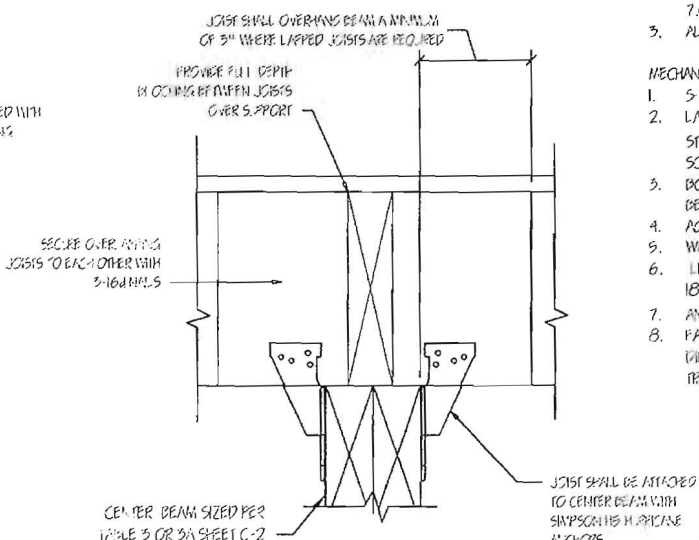
14 C-1
 DECK TO HOUSE CONNECTION DETAIL



16 C-1
 CONNECTION DETAIL AT CENTER BEAM



15 C-1
 CONNECTION DETAIL FOR BEAM AT DECK PERIMETER



17 C-1
 CONNECTION DETAIL AT CENTER BEAM

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 25646 Date: 11/27/14