



COUNTY OF NEVADA COMMUNITY DEVELOPMENT AGENCY

Building Department
950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-8794 <http://mynevadacounty.com>

Craig Griesbach, Building Director

PUBLIC HEARING OF THE NEVADA COUNTY BUILDING & ACCESSIBILITY STANDARDS BOARD OF APPEALS

DATE: Tuesday, August 20th, 2019 **TIME:** 9:00 am
LOCATION: Empire Room, Second Floor, Eric Rood Administrative Center
950 Maidu Avenue, Nevada City, CA 95959

AGENDA:

- Call the meeting to order
- Pledge of Allegiance
- Roll Call
- Approval of minutes from meeting July 8, 2019
- Consider an appeal of a code interpretation from Building Official regarding 2016 California Residential Code R317.1.14 Wood Columns as it relates to permit for a two-story barn for a property located at 16887 Champion Rd, Nevada City, CA, Assessor Parcel Number 004-151-088.
- General discussion regarding Reconstruction Policy #BD-CSC-08-002
- Public Comment
- Adjourn

Any documents related to this hearing will be on file and available for public review at the Nevada County Building Department, 950 Maidu Ave Suite 170, Nevada City, CA 95959 prior to the public hearing date.

The meeting room is accessible to people with disabilities. Anyone requiring reasonable accommodation to participate in the meeting should contact the Building Department by calling (530) 265-1524 at least four days prior to the meeting. TTY/Speech-to-Speech users may dial 7-1-1 for the California Relay Service.

ANNOUNCEMENTS: Pursuant to Government Code Section 54954.2, Board members may make a brief announcement or brief report on his or her activities. Board members may also provide a reference to staff or other resources of factual information, request staff to report back to the Board at a subsequent meeting concerning any matter, or take action to direct staff to place a matter of business on a future agenda.

ADVISORY REGARDING PUBLIC COMMENT: The following procedures shall be in effect with regard to the public comment: The total amount of time allotted for receiving such public comment may be limited to not less than 15 minutes during any regular Building and Accessibility Standards Board of Appeals meeting. The Chairman may limit any individual to not less than five (5) minutes and ten (10) minutes, if representing an organized group.

This agenda was posted on bulletin boards 72 hrs in advance of the hearing at the following locations: Eric Rood Administrative Center
1) at entrance of building 2) by Board Chambers 3) Lobby of Community Development Agency, Building Department and
4) MyNevadaCounty.com Website on both Main Calendar and Building Department Calendar



COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY

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Building Department
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Code Compliance
Fax (530) 265-9851

Housing Division
Phone (530) 265-1388
Fax (530) 265-9845

Agricultural Commissioner
255 S. Auburn Street
Grass Valley, CA
Phone (530) 273-2648
Fax (530) 273-1713



Date: _____

Case No. _____

BOARD OF APPEALS

Appeal for a Technical Interpretation of the Building Standard Codes

Project Location: 17688 CHAMPION RD., NEVADA CITY

Type of Construction: V-B WOOD FRAME Occupancy Type: R3 RESIDENTIAL

Building Permit Number (if applicable): 181444

Name of Property Owner(s): SWIFT MERRITT TRUST

Phone #: _____ Email: _____

Property Owner Address: _____
(Attach construction plans, application for permit and other relevant information)

In accordance with the provisions of Section L-V 2.2 of Chapter V of the Nevada County Land Use Code I hereby apply to the Board of Appeals for an interpretation of Section

R317.1.4 of the CALIFORNIA RESIDENTIAL Code which provides that:

"DECK POSTS SUPPORTED BY CONCRETE PIERS OR METAL
PEDESTALS PROJECTING NOT LESS THAN 1 INCH ABOVE
A CONCRETE FLOOR OR 6 INCHES ABOVE EXPOSED EARTH"
IS AN EXCEPTION TO "WOOD COLUMNS SHALL BE APPROVED
WOOD OR NATURAL DECAY RESISTENCE OR APPROVED
PRESSURE - PRESERVATIVE - TREATED WOOD."

In order that I might construct the above-named structure as proposed and shown on the attachments.

SCOTT MERRITT
PRINT NAME

Scott Merritt
SIGNATURE

7/10/19
DATE

Fee: \$ 306.68 Date Paid: 7/12/19

Meeting Date: 8/20/19

STAFF SIGNATURE [Signature]

DATE RECEIVED: 7/12/19

BACKGROUND

We are building a home for ourselves at 16887 Champion Road, Nevada City. Permit #181444.

It is a 'Barn kit', designed by DC Structures in Oregon. They also supplied the framing materials for the building and deck, based on their design.

A Field Inspector was called to do the Rough-in inspection. The deck was well underway at the time of this inspection. There were a few items he noted for us to address, but no mention was made of the deck posts being a concern.

Following that inspection we proceeded with completing the railings and having all of the components of the deck treated with preservative or solid coat.

The following week I called for other inspections. A different inspector showed up for this one, and after looking at the two items I called for him to inspect I left for an appointment. The inspector stayed and looked around further, which resulted in him calling out the deck posts as a violation, that they need to be replaced because they are not pressure treated.

I appealed to the Director of the Building Department, believing that if the methods and materials used were understood by him that he would agree that the intent of the code that the department applies (R317.1.3) has been met, and that there is another code that could be applied that our construction meets explicitly, (R317.1.4). This code is applied far more commonly in most regions, including areas of Nevada County, and has been considered 'Best Practice' for years. But he supported the Field Inspector's interpretation.

This ruling has prompted us to file this appeal. We understand the reason why R317.1.3 is preferred at the elevation our house is situated in, and at the same time we are totally confident that the way this deck was constructed and treated has addressed the intent of the stricter code, which is to prevent decay. It is our opinion that to do the work necessary to replace the posts is unreasonable given the actual circumstances, that to do the work carries substantial safety risk, and that it also would be an unnecessary waste of resources.

These are the Codes in question around the deck construction:

Section R317 Protection of Wood and Wood-Based Products Against Decay

R317.1.4 Wood columns (NOTE: This is the code we relied on, and met).

Wood columns shall be approved wood of natural decay resistance or approved pressure-preservative-treated wood.

Exceptions:

1. Columns exposed to the weather or in basements where supported by concrete piers or metal pedestals projecting 1 inch (25 mm) above a concrete floor or 6 inches (152 mm) above exposed earth and the earth is covered by an approved impervious moisture barrier.
2. Columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building when supported by a concrete pier or metal pedestal at a height more than 8 inches (203 mm) from exposed earth and the earth is covered by an impervious moisture barrier.
3. Deck posts supported by concrete piers or metal pedestals projecting not less than 1 inch (25 mm) above a concrete floor or 6 inches (152 mm) above exposed earth.

R317.1.3 Geographical areas (NOTE: This is the code applied by the County Building Department in this case).

In geographical areas where experience has demonstrated a specific need, approved naturally durable or pressure-preservative-treated wood shall be used for those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances when those members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering that would prevent moisture or water accumulation on the surface or at joints between members.

Depending on local experience, such members may include:

1. Horizontal members such as girders, joists and decking.
2. Vertical members such as posts, poles and columns.
3. Both horizontal and vertical members.

BULLET POINTS IN SUPPORT OF OUR APPEAL:

1. There is a Code, R314.1.4, which applies in this situation, that our 'As-Built' construction meets without question. NOTE: This code is still in place, is still the standard "Best Practice" in most areas, including parts of Nevada County. It is still in the code because it is still regarded as meeting the primary concern and objective of the building codes: Safety.
2. The Code the Building Department has chosen to apply, R314.1.3, is met in every regard with the exception of the joint where the knee braces connect to the posts, and we have a way of addressing that concern with a flashing.
3. The post material was not cited by the Field Inspector during the Rough-in inspection, or the previous inspection when the deck construction was well underway. Because we had 'passed' the rough-in inspection, we proceeded to complete the deck railings and have them painted and stained. The condition was pointed out at a later inspection, by a different inspector who was called out to inspect other things.
4. Nick McBurney, the Plan Checker, explained that a roof over the deck would be an acceptable mitigation if it extended an inch beyond the posts. The As-built construction includes a 2x8 rail cap, as well as two layers of fascia boards, plus the deck overhang, providing 2.5" of coverage beyond the posts, so this design actually exceeds the design that Mr. McBurney said would be acceptable. It's better, actually, because the protection is provided at the top of the posts, not by a roof 8' above the deck.
5. To replace the posts to meet R317.1.3, (there are 36 in question), would require the temporary shoring up of the structure in order to disassemble everything necessary to replace the posts, and the complete deconstruction and rebuild of the two stair structures. This is a complicated process, as well as a very real safety concern for the carpenters. Also, this raises concerns about the 'rebuilt' deck and railings having the same structural integrity as the original construction.
6. The first estimate we have for making the changes is \$48,000. It is impossible for us to understand how that expense would be forced on us when the intention of that code has been satisfactorily met with the methods and materials that were used.
7. This is not a situation where we were trying to 'get away with something', or taking a shortcut. This is our retirement home, and we have made choices all along the way for quality and durability. **Because there is a code that approves of our methods and materials, we did not doubt that we were proceeding in a good way.**
8. The attitude of the Building Department employees seems to lean more towards punitive consequences and 'Gotcha!' findings rather than collaboration to explore possibilities for satisfying the concerns addressed by the code. There is also an uncomfortable sense that the inspector who made the call on the posts has a personal investment or score to settle for some reason. (See the included email from the Inspector, which I can only assume was a mistake to have been sent to me before being edited. ("... you nailed my boy again yesterday.")
9. We have no doubt that the 'As-Built' has satisfied the intention of the codes, safety related to decay, and that to deconstruct and reconstruct the deck to meet the Code cited by the Building Department is unnecessary, enormously expensive, and presents a legitimate safety concern during the process that seems much greater than the potential for decay leading to unsafe

conditions in the future. Our request is to have R317.1.4 applied instead of 317.1.3 as it is a reasonable approach, given the methods and materials that were used and the care and intention with which the deck was built.

THE DECK IN QUESTION, HOW THE CONCERNS HAVE BEEN ADDRESSED



36 posts are subject to the ruling.



Every post is elevated on the concrete piers



Every post is set on a metal stand-off base.



A concrete slab will extend past the piers.



The tops of the posts are protected, not subject to decay by water absorption. The upper level posts are overlapped by the rail cap 1", the lower posts have 3 layers of material providing 2 ½" of overhang protection. All of these materials, (Rail cap, Fascia , decking), are cedar, an approved species for decay resistance.

The Plan Checker at the Building Department offered that one solution would be to provide a roof over the deck that extends 1" beyond the edge of the deck. The As-built construction provides better protection than that.





This joint is the only location that is subject to water getting places it shouldn't.



A metal flashing can be provided to prevent infiltration, protect against decay.



Scott Merritt

Inspection result for permit 181444

noReply <noreply@co.nevada.ca.us>

Wed, May 22, 2019 at 8:01 AM

To: [REDACTED]
Cc: Applicant@email.com

Permit: 181444

Permit Type: Full Review

Address: 16887 CHAMPION ROAD, Nevada City, CA 95959

Inspection Type: Wall Insulation

Result: Fail

Comment: Date: 05/22/2019 08:00:58 1. address items number one in five I'm correction notice that it 5/8/19 2. find determination regarding deck material after meeting with building official you nailed my boy again yesterday 3. have Warmboard piping under test prior to final picked up gas line schematic okay to proceed with drywall

DECK POST CONCERNS

Permit 181444

16887 Champion Mine Road, Nevada City

RECEIVED

JUN 24 2019

CDA BUILDING

We had a field Inspector call out a code violation, citing that the posts used for the deck are not pressure treated. While we understand the reasoning behind the code for maximizing the safety of the construction, there are reasons why we believe the 'As-Built' construction is acceptable and we ask that the following points be considered:

- California Residential Code, Section 317.1.4.
According to this exception, the posts are not required to be pressure treated because they are elevated above the ground, are on stand-off post bases, and the concrete piers (will be) surrounded by concrete once the slabs are poured. The As-Built construction meets this description.
- California Residential Code, Section 317.1.1.
This code references that the local jurisdiction can make a determination based on geographical location to rule that all components of the deck be pressure treated. While this is the code that is referenced for requiring the posts be pressure treated, there was no mention in the Plan Review Comments that this code section would be applied. Consequently, the posts that were supplied by the "Kit Barn" company were deemed to be conforming. How were we to know which code would be applied? When there are conflicting codes regarding a condition it would eliminate this sort of confusion if the code that will be applied by the Building Department is noted in the Plan Review Comments.
- There were no notes on the architectural drawings to indicate that the posts needed to be pressure treated. And as stated above, there were no comments in the Plan Review that noted this, either. This is a "Kit" structure, which was designed by the company, with framing materials sent by them. They were confident that the design and materials met the code Section 317.1.4. They had no information that the other code, Section 317.1.1., would be applied.

We are fully confident that the As-built construction does not present a safety concern. The accompanying photos support this confidence:

- The posts are on elevated concrete piers, have stand-off bases, and conform to California Residential Code, Section 317.1.4. in every regard.
- The posts have no horizontal surfaces where water can be absorbed, the tops of the posts are covered with rail caps.
- The two coats of solid coat on the lower posts and preservative stain on the deck rail posts provide protection against water absorption on the vertical surfaces of the posts.
- The only area that is susceptible to moisture is where the knee braces meet the posts below the deck level. This joint can be improved with flashings that will divert water, prevent it from

absorbing into the joint. This is an improvement that we welcome. Note: There are exposed beams at the roofline that we had protected with flashing, by our choice, because we are very aware of the need to protect against water absorption.

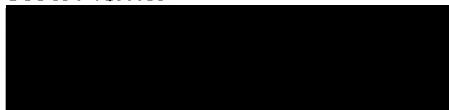
- We are building this home for ourselves and we have every intention of doing the maintenance required to prevent structural compromise.

Other factors that deserve consideration:

- The rough inspection had been passed, with no mention of the posts being a violation. Based on passing that inspection, we went ahead and completed the deck railings and had all of the posts painted and stained. About a week later I called for the inspection of the drywall nailing and a gas line in a trench. A different inspector came out this time, and he made the call on the posts. What is the policy around doubling back to have a second look at conditions that were previously signed off? How can a job proceed with confidence when conditions that weren't observed in a previous inspection can be cited at a later date?
- Nick McBurney explained that a roof over the deck would be an acceptable mitigation if it extended an inch beyond the posts. The As-built construction includes two layers of fascia boards, providing 1.5" of coverage beyond the posts, and the deck extends another inch beyond the fascia, so this design actually exceeds the design that Nick said would be acceptable. It's better, even, because the protection is provided at the top of the posts, not by a roof 8' above the deck.
- The photos demonstrate that the concerns that Code Section 317.1.1 addresses have actually been met by the design of the deck in combination with the protective coats of paint and stain. The As-built construction is built to last, addresses the concern for water penetration/absorption, and is not a safety concern for structural failure.
- The Engineer for the plans has provided a stamped letter, approving of the As-built construction.
- The construction of the deck and railings is not as simple as many decks, having concealed hangers at beams and routing of posts to accept rail components, among the features. To replace all of the posts would be a major undertaking, a complicated process. We received a bid for replacing the posts of \$48,060. Painting and staining the new material would be in addition to that. It is impossible for us to understand how that expense is justified or reasonable when the intention of the code that is being applied has been satisfactorily met with the methods and materials that were used.
- We believe that given the way the posts have been installed that it is reasonable and prudent to apply California Residential Code, Section 317.1.4, allowing for the As-built construction with Douglas Fir 6x6 posts rather than replacing them with pressure treated posts and knee braces. We hope you agree.

Thank you, we look forward to hearing back from you,

Scott Merritt



Structural Clarification Item

Date: June 10, 2019

Project: Merritt "Oakridge"
16887 Champion Road
Nevada City, CA 95959

Project Number: 18-05-293

To: Cole Hansen
DC Builders
11251 SE 232nd Avenue
Damascus, OR 97089

From: Scott Ratterman, P.E.

Re: Deck Posts and Knee Braces



Digitally signed by Scott Ratterman
DN: C=US, E=sratterman@eeimt.com,
O="Eclipse Engineering, P.C.", CN=Scott
Ratterman
Location: 111 SW Columbia St. Suite 1090
Portland, OR 97201
Contact Info: 503-395-1229
Date: 2019.06.10 10:51:20-07'00'

Reference signed and sealed construction documents dated October 24, 2018:

On sheet S-001, under Wood Construction (Carpentry), note 9 indicates that posts shall be pressure treated when exposed to weather.

Reference the California Residential Code, Section R317.1.4. According to exception number 3 the deck posts are not required to be pressure treated if the wood posts are not within 6" of finished grade and are installed on a 1" standoff above the concrete pedestal. The posts on this project meet these requirements and are not required to be pressure treated.

All horizontally framed deck elements have been installed as either pressure treated lumber or cedar. The posts and knee braces are the only elements of the deck that are not pressure treated. Water will not accumulate on the posts because they are vertical elements. The knee braces are nearly vertical elements and will not accumulate water either. The joint between the knee brace and the post may accumulate water, therefore we recommend that flashing be installed to mitigate water from accumulating at that connection.

In addition to the above referenced code exception, the posts and knee braces have been treated with preservative stain. It is our professional opinion that the posts and knee braces do not need to be pressure treated.

Please call with any specific questions.

Attachment: none

END OF STRUCTURAL CLARIFICATION ITEM







Case #
181444

Inspection Type *
Wall Insulation

Address
16887 CHAMPION ROAD, Nevada City, CA 95959

Record Type *
Building/Full Review/NA/NA

Request Date

05/17/2019



Requestor's Phone
xxx

Inspection Contact Name
xxx

Contact Phone

Request Comment

Scheduled Date *

05/20/2019



Scheduled Start Time

AM

Inspection Date

05/22/2019



Status *

Fail

Department * Current Department

Building Inspector/Plan Checker

Inspector * Current User

Gabriel Leyva

Result Comment Standard Comments

Date: 05/22/2019 08:00:58

1. address items number one in five l'm correction notice that it 5/8/19
2. find determination regarding deck material after meeting with building official you nailed my boy again yesterday
3. have Warmboard piping under test prior to final

Record Comments

preservative-treated in accordance with AWP A U1 for the species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWP A U1.

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches (457 mm) or wood girders when closer than 12 inches (305 mm) to the exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.
2. Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches (203 mm) from the exposed ground.
3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than $\frac{1}{2}$ inch (12.7 mm) on tops, sides and ends.
5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches (152 mm) from the ground or less than 2 inches (51 mm) measured vertically from concrete steps, porch slabs, patio slabs and similar horizontal surfaces exposed to the weather.
6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.

R317.1.1 Field treatment. Field-cut ends, notches and drilled holes of preservative-treated wood shall be treated in the field in accordance with AWP A M4.

R317.1.2 Ground contact. All wood in contact with the ground, embedded in concrete in direct contact with the ground or embedded in concrete exposed to the weather that supports permanent structures intended for human occupancy shall be approved pressure-preservative-treated wood suitable for ground contact use, except that untreated wood used entirely below groundwater level or continuously submerged in fresh water shall not be required to be pressure-preservative treated.

R317.1.3 Geographical areas. In geographical areas where experience has demonstrated a specific need, approved naturally durable or pressure-preservative-treated wood shall be used for those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances when those members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering that would prevent moisture or water accumulation on the surface or at joints between members.

Depending on local experience, such members may include:

1. Horizontal members such as girders, joists and decking.
2. Vertical members such as posts, poles and columns.
3. Both horizontal and vertical members.

R317.1.4 Wood columns. Wood columns shall be approved wood of natural decay resistance or approved pressure-preservative-treated wood.

Exceptions:

1. Columns exposed to the weather or in basements where supported by concrete piers or metal pedestals projecting 1 inch (25 mm) above a concrete floor or 6 inches (152 mm) above exposed earth and the earth is covered by an approved impervious moisture barrier.
2. Columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building when supported by a concrete pier or metal pedestal at a height more than 8 inches (203 mm) from exposed earth and the earth is covered by an impervious moisture barrier.
3. Deck posts supported by concrete piers or metal pedestals projecting not less than 1 inch (25 mm) above a concrete floor or 6 inches (152 mm) above exposed earth.

R317.1.5 Exposed glued-laminated timbers. The portions of glued-laminated timbers that form the structural supports of a building or other structure and are exposed to weather and not properly protected by a roof, eave or similar covering shall be pressure treated with preservative, or be manufactured from naturally durable or preservative-treated wood.

R317.2 Quality mark. Lumber and plywood required to be pressure-preservative treated in accordance with Section R318.1 shall bear the quality mark of an approved inspection agency that maintains continuing supervision, testing and inspection over the quality of the product and that has been approved by an accreditation body that complies with the requirements of the American Lumber Standard Committee treated wood program.

R317.2.1 Required information. The required quality mark on each piece of pressure-preservative-treated lumber or plywood shall contain the following information:

1. Identification of the treating plant.
2. Type of preservative.
3. The minimum preservative retention.
4. End use for which the product was treated.
5. Standard to which the product was treated.
6. Identity of the approved inspection agency.
7. The designation "Dry," if applicable.

Exception: Quality marks on lumber less than 1 inch (25 mm) nominal thickness, or lumber less than nomi-