

Exhibit A

1 IN THE SUPERIOR COURT OF THE STATE OF ARIZONA

2 IN AND FOR THE COUNTY OF MARICOPA

3 GALLERY COMMUNITY)
ASSOCIATION, an Arizona)
4 non-profit corporation,) Case No. CV2020-008714
5)
6 Plaintiff)

VS.)

7 K. HOVNANIAN AT GALLERY,)
LLC, an Arizona limited)
liability company; K.)
8 HOVNANIAN ARIZONA)
OPERATIONS, LLC, an)
9 Arizona limited liability)
company; K. HOVNANIAN)
10 DEVELOPMENTS OF ARIZONA,)
INC., an Arizona)
11 corporation; K. HOVNANIAN)
COMPANIES OF ARIZONA,)
12 LLC, an Arizona limited)
liability company; JOHN)
13 DOES I-X AND JANE DOES)
I-X, WHITE CORPORATIONS)
14 I-X; BLACK PARTNERSHIPS)
I-X; AND GRAY LIMITED)
15 LIABILITY COMPANIES I-X,)

16 Defendants.)

17 _____)
K. HOVNANIAN AT GALLERY,)
18 LLC, an Arizona limited)
liability company; K.)
19 HOVNANIAN ARIZONA)
OPERATIONS, LLC, an)
20 Arizona limited liability)
company; K. HOVNANIAN)
21 DEVELOPMENTS OF ARIZONA,)
INC., an Arizona)
22 corporation; K. HOVNANIAN)
COMPANIES OF ARIZONA,)
23 LLC, an Arizona limited)
liability company;)

24 Third-Party)
25 Plaintiffs,)

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VS.

CHAS ROBERTS AIR
CONDITIONING, INC., an
Arizona corporation;
DESERT VISTA, INC., an
Arizona corporation;
GOTHIC LANDSCAPING, INC.,
a California corporation;
HOME BUILDERS SITE
SERVICES OF ARIZONA, LLC,
an Arizona limited
liability company;
LEBLANC BUILDING CO.
INC., an Arizon
corporation; LIBERTY
CONSTRUCTORS, LLC, an
Arizona limited liability
company, dba LIBERTY
ARIZONA; RENCO LLC, an
Arizona limited liability
company dba RENCO ROOFING
R/S SERVICE & SUPPLY,
INC., an Arizona
corporation; SARGON
MASONRY CONSTRUCTION,
LLC, an Arizona limited
liability company; and
DOES 1-50.

Third-Party
Defendants.

* * * * *

ORAL DEPOSITION OF
EVAN JAMES MARSHALL
August 30, 2022
(REPORTED REMOTELY)

* * * * *

ORAL DEPOSITION OF EVAN JAMES MARSHALL, produced as
a witness at the instance of the DEFENDANTS/THIRD --
PARTY PLAINTIFFS, and duly sworn, was taken in the
above-styled and numbered cause on August 30, 2022,
from 3:03 to 4:54 before Rene Mulholland, TCRR, CSR No.
6050, in and for the State of Texas, reported by
machine shorthand, at the offices of 2019 Amber Glean,
Katy, Texas 77494, and the provisions stated on the
record.

1 detailed the roof or how it should be constructed by
2 the framer, have you?

3 A. No.

4 Q. Moving on, if there is an issue regarding
5 exterior wall cladding; and on the same page, page 14,
6 you address some comments in the MC Defect Issue Report
7 dated January 31st, 2022. I believe that's the report
8 by Renco's roofing expert. Is that the report you're
9 discussing?

10 A. I believe so, but I also think I referenced
11 the full title of the report earlier in my report. So,
12 I'll scan back and see if I don't see that.

13 Q. I believe -- I believe on page 3, you refer to
14 that as the MCC Defect Issue Report dated January 31st,
15 2022?

16 A. Yeah. Yes, I see that.

17 Q. And that might also be on the first page. I
18 don't think there is a different or more standard name
19 for that.

20 In relation to this exterior wall cladding
21 issue, can you explain -- I guess, can you explain --
22 before we get into your response to Mr. Flitka's
23 (phonetic) opinions, can you explain in general terms
24 what you understand the allegations by SBSA to be with
25 respect to this metal drip edge, flashing issue on

1 balcony decks?

2 A. Yeah. I don't recall exactly what SBSA's
3 position was or what fact evidence they presented.
4 With regard to that metal drip edge, I understand from
5 the MCC report that they opined that they thought it
6 was due to -- the water intrusion at that location was
7 due to a missing wood block support. I noted that MCC
8 acknowledged that they did not uncover or destructively
9 open the location of that drip edge, and they did not
10 confirm that there was missing wood block there.

11 On the following page of my report, I depict a
12 detail from the architect that shows this location and
13 the correct installation of the wood and the flashing
14 noting that the architect indicated that a wood block
15 would be used or, instead, the plywood sheathing could
16 be extended to the outside edge of the balcony.

17 And in my investigation, I was able to, on
18 this page and in this picture, find a couple of
19 locations, at least, where the stucco had been removed;
20 and I could actually see the plywood of the deck
21 extending up to the back of that drip edge, which
22 looked more conclusively to me that the proper wood had
23 been installed, per the architect's detail.

24 Q. And you're looking at the next page of your
25 report, Exhibit 16, and the photograph on the bottom

1 half of that page, correct?

2 A. Yeah, page 16, figure 17.

3 Q. Okay. And I had noted you had said right
4 above that photograph, "Additionally, BSC observed
5 locations where the plywood sheathing extended to the
6 back edge of flashing slash drip edge."

7 Did you identify or note other locations where
8 you found that?

9 A. I documented them. I don't recall. I would
10 have to review my notes and photographs. I did not
11 include it here in this report.

12 Q. Is that something that would be in the photo
13 appendix to your report or is that something that I
14 would have to look for elsewhere in your report to
15 identify?

16 A. Not in the report but in our file, either in
17 my notes and/or in the photographs that I took. So,
18 not all of the photographs that I took are included in
19 the report. I only have representative examples
20 included in this report.

21 Q. But as per detail 5 from the structural
22 drawings included on page 15, you were able to
23 determine that the plans called for either backing or
24 extending the -- either -- sorry. Let me ask that
25 differently.

1 You were able to determine from detail 5 from
2 page AS04 in the structural drawings that the design
3 documents called for either blocking or for extending
4 the plywood in order to install the flashing properly,
5 correct?

6 A. Correct. And I believe AS04 is actually from
7 the architectural drawings, but yes.

8 Q. Yeah. And were you able to determine or did
9 you see any documents or receive any information
10 besides your observation of the plywood at the site
11 that informed you as to what actually did happen or
12 what was ever decided by the parties involved in
13 construction?

14 MR. LUDWIG: Object to the form.

15 A. No.

16 Q. (By Mr. Horowitz) And do you recall about how
17 many locations you were able to observe the plywood
18 that you believe was extended all the way to the back
19 edge of the flashing or drip edge?

20 A. Maybe two or three.

21 Q. Were there any locations that you opened where
22 you didn't see that or were there any locations where
23 you were able to observe the deck flashing where you
24 didn't see the plywood extended all the way?

25 A. Not that I recall.

1 Q. Did the design documents provide all the
2 information that was needed for the framer to establish
3 the proper slope of the decks?

4 A. I believe so.

5 Q. Okay. SBSA has made a reference in -- Ed
6 Fronapfel of SBSA has made a reference in his report to
7 some kind of notch at the decks. Are you familiar with
8 what I'm talking about?

9 A. I don't recall. I don't recall that, no.

10 Q. Just to refresh your recollection, I believe
11 that Mr. Fronapfel said that there should be some type
12 of notch at the end of the deck to allow or receive the
13 metal flashing at the deck edge. Does that sound
14 familiar to you?

15 A. No. And I don't have an opinion on that right
16 now.

17 Q. Okay. That was going to my next question.
18 You have not formed any opinions -- never mind. You
19 already answered that.

20 MR. LUDWIG: Can we take a break? It's
21 been about an hour now.

22 MR. HOROWITZ: Yeah, let's take five
23 minutes. Let's come back at 2:20. I think we'll be
24 done with this one pretty quickly after that.

25 (Break in Proceedings from 4:04 to 4:25)

1 BY MR. HOROWITZ:

2 Q. So, what's your understanding of the claims
3 that plaintiff's expert is making regarding the lateral
4 force resistant system?

5 A. Initially, the claim was that since one
6 location of the missing panel or a buckled metal strap
7 were observed, that there should be an allocation or
8 apportionment for the entire building or project to be
9 remediated.

10 Q. Okay. And you understand that -- you
11 understand Mr. Fronapfel has essentially taken the
12 position that there should be an expectation that when
13 other repairs are done, that other locations of missing
14 sheer wall and otherwise improperly installed
15 components of the lateral force resistance system will
16 be uncovered, correct?

17 A. Yes. If the investigation happens at those
18 locations, I would expect so.

19 Q. And I believe you noted in your report that
20 there have been locations where plaintiff or their
21 expert has suggested that wood sheathing was missing;
22 but that only one of those locations actually
23 correlates to an area where a structural sheer wall was
24 required according to its structural plans, correct?

25 A. That's my understanding, yes.

1 Q. Were you able to observe the location where
2 plaintiff contends that part of the -- part of the
3 scheduled sheer wall was missing or not constructed?

4 A. Yes.

5 Q. You were on site when that was uncovered,
6 correct?

7 A. Yes.

8 Q. What's your opinion regarding whether or not,
9 you know, LeBlanc constructed the sheer wall properly
10 in that specific location?

11 A. It did not match the set of drawings that I
12 had. However, I did not have access to communications
13 between LeBlanc and the general contractor as relating
14 to that wall panel and its installation. It's pretty
15 common for issues to arise during construction that
16 there are conflicts in the design versus the build and
17 there are conflicts between trades and you may not be
18 able to install the wall panel.

19 Q. Were you given any information or
20 documentation that would show to you that it was not
21 possible to construct the sheer wall in that specific
22 location?

23 A. None was presented to me.

24 Q. Were you given any documentation or
25 information that would show you that LeBlanc was

1 excused from constructing the sheer wall on that
2 particular location?

3 A. Not that I recall.

4 Q. There was also a claim that plaintiff has made
5 in connection with a buckled strap that was identified
6 in that same location. What's your understanding about
7 what Ed Fronapfel of SBSA has said in connection with
8 that scrap in this same location that they had tested?

9 A. I don't recall their exact statement regarding
10 the strap. My observations of the strap revealed a
11 condition that's commonly not accounted for by design
12 engineers, and that is wood shrinkage. So, lumber
13 arrives on the site and it acclimates and dries but the
14 project schedule is dictated to be what it is and the
15 design installation is dictated to be what it is and
16 the subcontractor installs it per the design.

17 A lot of fit-up issues occur because the
18 design did not account for prime dependent issues like
19 drying and shrinking of the wood.

20 Q. When you say fit-up issues, can you explain
21 what you mean?

22 A. Excuse me?

23 Q. When you say fit-up issues, can you explain
24 what that means?

25 A. Well, one such example would be the tolerances

1 that are allowed for in the construction by the code.
2 This includes everything from machine of the lumber to
3 the installation of the lumber and the exact precision
4 to which everything is -- the work is done. So, that
5 could be one example of the fit-up issues.

6 The other could be lack of sufficient detail
7 to account for clashes with other wood framing members
8 but, particularly, the issue here looks consistent with
9 this drying and crushing of the wood, shrinking of the
10 wood under the weight of gravity. This is a pretty
11 well-known issue in structural engineering.

12 Q. Do you have any problem or concern with the
13 strap buckling?

14 A. The strap -- the design intent of the strap,
15 the manufacture's recommendation for the strap
16 installation, is that it should be taught, tight, and
17 not buckled.

18 Q. Plaintiff's counsel has made some allegations
19 regarding, I believe, nailing of the strap. Do you
20 have an understand of what his -- what the position
21 he's raised and so you responded to that?

22 A. No, I have not responded to it. I don't
23 recall the exact issue, but I have not responded to it.

24 And if I may, Mr. Horowitz, before you move on
25 to the next topic, we can certainly finish discussing

FURTHER CERTIFICATION UNDER RULE 203 TRCP

The original deposition was/was not returned to the deposition officer on _____, 2022;

If returned, the attached Changes and Signature page contains any changes and reasons therefor;

If returned, the original deposition was delivered to _____, Custodial Attorney;

That \$_____ is the deposition officer's charges to the DEFENDANTS/THIRD-PARTY PLAINTIFFS, K. Hovnanian at Gallery, LLC, and K. Hovnanian Arizona Operations, LLC, for preparing the original deposition transcript and any copies of exhibits;

That the deposition was delivered in accordance with Rule 203.3, and that a copy of this certificate was served on all parties shown herein on _____, 2022, and filed with the Clerk.

Certified to by me this ___ day of _____, 2022.

Rene Mulholland
signature

RENE MULHOLLAND, TCRR, CSR No. 6050
Expiration Date: October 31, 2022
Esquire Deposition Solutions
Firm Registration No. 286
1700 Pacific Avenue, Suite 1000
Dallas, Texas 75204

Exhibit B

Gallery Condominium Association

v.

K. Hovnanian at Gallery, LLC

BHA # 19-7096

Defense Response Report

August 11, 2021



Prepared By:

Terry Ingo
General Contractor
Bert L. Howe & Associates, Inc.
5415 East La Palma Avenue
Anaheim Hills, California 92807

Prepared For:

Barbara Stansil, Esquire
Wilenchik & Bartness
2810 North Third Street
Phoenix, AZ 85004



Bert L. Howe & Associates, Inc.

Construction Consultants

KHOV00001701

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

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Project Summary and Task Analysis

I. Scope of Analysis:

Bert L. Howe & Associates, Inc. (BHA) has been retained by K. Hovnanian at Gallery, LLC ("KHov" or "Builder") to respond to allegations of construction defect brought by the Condo Owners Association ("Claimant") of an 18 three-story-unit (four building) residential development constructed by KHov known as The Gallery located in Scottsdale, Arizona ("Project"). BHA understands this project was built between 2016 and 2017.

The Claimant retained SBSA, LLC ("SBSA") as their general construction expert and Nautilus General Contractors, Inc. as their cost to repair expert. BHA is not aware of any other experts retained by Claimant. Each designated plaintiff expert recorded their evaluation and/or repair recommendations in the following reports/statements (Claimant Expert's Reports):

- SBSA "Construction and Design Compliance Report", dated June 23, 2021
- Nautilus "Preliminary Estimate of Costs", dated July 23, 2021

The following report summarizes BHA's responses to the defect allegations and opinions of construction defects as set forth in the Claimant's reports. KHov also retained Peterson Geotechnical Group ("PGG") to offer opinions regarding SBSA's allegations of defective site improvements and opinions associated with soils related issues. PGG prepared a separate report expressing its observations, responses, and opinions.

BHA representatives investigated Claimant claims by evaluating the Claimant expert's reports, analyzing the plans and specifications, reviewing code requirements, conducting visual inspections of the project, and conferring with KHov representatives having knowledge of the project. BHA reserves the right to respond to Claimant expert's rebuttal reports, deposition testimony, and additional information when available. It is BHA's understanding Claimants have an ongoing investigation of roof issues. BHA reserves the right to evaluate any new claims Claimants may put forth and offer or revise its opinions accordingly as new information is disclosed.

II. Documents Reviewed:

BHA has reviewed and utilized the following documents in the preparation of this report.

- Preliminary Estimate of Costs prepared by Nautilus General Contractors, Inc., July 23, 2021
- Construction and Design Compliance Report prepared by SBSA, dated June 23, 2021
- Architectural Drawings by Otak, Inc, dated March 11, 2016 and revised June 8, 2016 and August 2, 2016
- SBSA's inspection and destructive testing photographs and field notes
- Job files of SBSA
- Arizona Registrar of Contractors ("AROC") Workmanship Standards, June 2009
- 2012 International Residential Code
- 2012 International Building Code
- MI Windows and Door Installation Recommendations

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

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III. Defense Inspection Dates

Defense inspections at the site took place on the following dates:

- October 14, 2019 – Non-Invasive Visual Inspection of unit interiors, building exteriors, and roofs
- October 15, 2019 – Non-Invasive Visual Inspection of unit interiors, building exteriors, and roofs
- October 16, 2019 – Non-Invasive Visual Inspection of unit interiors, building exteriors, and common areas
- March 9, 2021 – Claimant Destructive Testing of building exteriors
- March 10, 2021 – Claimant Destructive Testing of building exteriors
- March 11, 2021 – Claimant Destructive Testing of building exteriors
- July 27, 2021 – Observation of Claimant temporary roof repair

IV. Construction Defect Allegations Analysis

As a basis for analysis, BHA maintains that construction defect claims must be founded on an evaluation of the original constructed components. Any alterations of the original as-built conditions modify the project compromising both the analysis and the significance of alleged defects. Alterations could take the form of intentional modifications, damage by Claimant, failure to maintain, improper maintenance, etc.

In construction, there is seldom a single method to build something. Like other manufacturing industries, construction has guidelines and tolerances to govern the process. Construction documents, building codes, and manufacturer installation recommendations provide those guidelines, however, deviations from those guidelines, in and of themselves, do not constitute a defect. Local industry standards, established by the applicable building code as adopted, interpreted, and enforced by local Building Officials establishes the accepted standards for local construction. When a building component is originally constructed in accordance with local industry standards or approved by the building inspector it cannot be considered defective and repairs are not necessarily warranted. If a building component is performing its intended purpose, it cannot be considered defective, and repairs are not reflexively warranted.

BHA employs a two-part test to determine if a construction defect exists:

- 1) The material deficiency must impair the structural and/or function of the dwelling (or there is a reasonable likelihood impairment will occur if not repaired)
- and
- 2) The impairment is caused by either substandard materials or substandard workmanship.

The Arizona Registrar of Contractors (“AROC”) establishes the workmanship standards for construction in Arizona in its publication titled “The Workmanship Standards for Licensed Contractors”. BHA considers both the industry standards and AROC standards when evaluating an alleged construction defect.

The AROC recognizes that a contractor should not be responsible for repairing building components indefinitely. The AROC establishes a reasonable period for which a contractor is responsible for repairs. The AROC provides a two-year jurisdiction period where an owner can report the issues regarding failed building components to the builder for remedy. There were no AROC complaints filed by the COA or the condo owners, which is indicative of no systemic problem with construction. It’s important to note that repair remedies only apply to construction items installed as part of original construction. Any component that has been modified through owner or COA improvement, neglect or abuse is no longer the responsibility of the contractor to repair as outline by the AROC:

“The contractor should stand behind the product, but the buyer should be responsible for owner-maintenance items. Contractor responsibility under these standards should not extend to items which have been subject to owner neglect, modification or abnormal use.”

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

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The AROC further establishes the start date for the period for which the contractor is responsible:

“The effective date for the start of coverage of these standards should begin with the close of escrow, when the buyer occupies the structure, or the date of discovery, whichever occurs first or as otherwise noted.”

Regardless of its two-year jurisdiction, the AROC Workmanship Standards are the industry standards for construction in Arizona.

V. Defense Response to Claimant Allegations

SBSA's report alleges defective conditions exist in the building stucco, window installations, decks, and roofs. For many of SBSA's claims, SBSA cites deviations from the construction plans as the reason the condition is defective. The Gallery is a private development. Like any private development, the developer has the right to make design alterations and to make decisions that affect construction costs, schedules, and performance requirements. Also, like any private development, a developer works and coordinates with construction crews and the design team during construction to address site conditions, as-built conditions, and real estate market factors. On any project, it is typical for a value engineering process to take place. It is also typical for additive and deductive change orders to occur as a project is being constructed. A deviation from construction plans, in and of itself, is not a defect. To properly determine a defect exists, the performance of a building component must be considered. SBSA provides little physical evidence any of the alleged conditions have failed to perform their intended purpose.

BHA does acknowledge some of the building components on some of the buildings are not performing and appropriate repairs should be made. BHA does BHA includes its repair recommendations in its evaluation of SBSA's allegations below.

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

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The list of allegations below are drawn from SBSA "Construction and Design Compliance Report", dated June 23, 2021.

I. STRUCTURAL

1.0 Compliance with Geotechnical Report (Informational Only)

Plaintiff Description:

The original geotechnical report presents recommendations for over excavation, soil stabilization, and drainage on the site. Review the original geotechnical report for applicable design and construction recommendations for informational purposes.

Plaintiff Location:

N/A

Plaintiff Quantity:

N/A

Plaintiff Repair Scope:

N/A

Plaintiff Cost:

N/A

Defense Analysis and Repair Recommendations:

This allegation is being addressed by PGG. See PGG report.

2.0 Lateral Force Resisting System (LFRS)

2.0A Non-Compliant LFRS

Plaintiff Description:

Intrusive examination revealed the framing at Unit 3111 of Building D of the Gallery site was constructed without the proper LFRS that was clearly detailed on structural braced/ shear wall plans.

Plaintiff Location:

Unit 3111

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- All LFRS repairs shall be performed per the braced/ shear wall and holddown schedule provided on Sheets S3.1 through S3.6 of the Felten structural plans as designed by the Structural EOR. Sections C.1 and C.2 of engineer's report. (Included in Building Envelope 1.0B) 2. Repair contractor to include 10-percent of the stucco repair costs for use as a contingency for the repairs for the noncompliant LFRS. (Included below 2.a.). a. Provide allowance for all structural repairs as described above. Includes removal and reinstallation of windows and door as required to accommodate variations in wall thickness after repairs are performed. (1 al) (Allowance pending further investigation)
- For Unit 3111 of Building D, perform the following repairs to the LFRS.
 - Remove existing stucco to coordinate with repairs recommended in Sections C.1 and C.2 of SBSA's report.
 - Repair contractor to verify and confirm the extent of repairs to the LFRS.

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

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- Where exterior sheathing is identified as missing, install new 3/8-inch minimum-rated sheathing using specified nails spaced to provide minimum shear resistance of 306-plf per the braced/ shear wall schedule.
- Where existing strap is identified as installed incorrectly, remove and replace with new strap per the holddown schedule. Install according to the manufacturer's installation requirements.
- Reinstall cladding per the repairs recommended in Sections C.1 and C.2 of SBSA's report.
- Repair contractor to include 10-percent of the stucco repair costs for use as a contingency for the repairs for the non-compliant LFRS. The as-built construction of the LFRS will be compared with LFRS design on the Felten structural plans as designed by the Structural EOR after the stucco system is removed.

Plaintiff Cost:

\$200,000.00

Defense Analysis and Repair Recommendations:

SBSA asserts the shear panel was missing and a framing strap was not properly fastened at unit 3111 which likely "reduces the structural integrity of the building". SBSA bases this allegation on its observations during its destructive testing of the building envelope at one unit, unit 3111. With this observation at one unit, SBSA extrapolates that all the units at every building have the same condition and require repair. BHA disagrees with SBSA's extrapolation practice.

BHA was present for SBSA's destructive testing at a pot shelf beneath the XOX window unit at unit 3111. The pot shelf overlaps the juncture between the first and second floors. Inspecting inside the pot shelf, BHA documented one framing strap between the first and second floors was buckled slightly. BHA also observed the fasteners were covered by the horizontal framing of the pot shelf. It is unknown to BHA how SBSA determined "fasteners in the CS16 strap connecting the exterior sheathing below the triple panel window were missing" as the fasteners were not exposed. BHA did observe other straps at unit 3111 exposed by SBSA that were completely fastened and secure. In addition, framing inspections were conducted by the local building officials, as well as third-party engineers, and the framing was found to be compliant at every building.

SBSA also removed stucco from on top of the pot shelf and approximately 18" up the wall adjacent to the window unit. BHA documented open framing behind the stucco. BHA also observed a strip of exterior sheathing was installed inside the pot shelf between the first and second floors, as well as at the top of the second-floor wall across the juncture with the third-floor wall.

SBSA claims a defect exists without providing any evidence the omission of some strap fasteners and a single shear panel has compromised the structural integrity of the building. BHA is unaware of any calculations or other analyses SBSA made to support this claim. SBSA simply did not observe what they expected to find and deemed the deficiency a defect. BHA disagrees with SBSA's assumption that a building's structural integrity is automatically compromised by the omission of some fasteners and a portion of a shear panel. Further, unit 3111 is the center unit of a five-plex. For SBSA to not consider the structural integrity of the entire building as a whole and to opine "the non-compliant condition more likely than not reduces the structural integrity of the LFRS, as intended by the Structural Engineer of Record (EOR)" is unreasonable. SBSA does not provide any evidence the structure is not performing. In fact, SBSA removed stucco from several locations and found framing straps in place and properly fastened. BHA disagrees that a technical deficiency, in and of itself, is a defect. No structural repairs are needed.

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

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II. CIVIL

1.0 Grading and Drainage

1.0 A Drainage Bounded by Concrete Flatwork

Plaintiff Description:

There are unpaved areas next to the buildings at the front elevations where the grading is such that the ground surface is below the concrete flatwork (sidewalks and driveways). This condition creates bounded conditions because the concrete prevents positive drainage away from the foundations.

Plaintiff Location:

Perform repairs at all locations noted in the Civil Repair Drawings.

Plaintiff Quantity:

N/A

Plaintiff Repair Scope:

- Perform repairs at all locations noted in the Civil Repair Drawings.
- Coordinate sidewalks, curbs, and roadway to allow for proper site geometric integration in all new construction. A full topographical survey from the curb line to the face of the building will be required due to the limited site elevation difference to enable design to correct the deficient construction.
- Construct concrete aprons below roof drain terminations. Where sidewalks exist, remove sidewalk to nearest joint and provide sidewalk chase. Where no sidewalks are constructed, construct curb cut to allow flow out of bounded area and regrade unpaved area to drain.
- Place rocks (4- to 6-inch diameter) in concrete aprons.
- Adjust existing electrical and irrigation boxes as required.

Plaintiff Cost:

\$25,532.88

Defense Analysis and Repair Recommendations:

This allegation is being addressed by PGG. See PGG report.

1.0B Non-Compliant Management of Concentrated Flows

Plaintiff Description:

The discharge of roof drainage directly into the undrained areas creates a condition where large quantities of water are able to infiltrate into the bearing soils below the foundations, sidewalks, and driveways.

Plaintiff Location:

Perform repairs at all locations noted in the Civil Repair Drawings.

Plaintiff Quantity:

N/A

Plaintiff Repair Scope:

- Perform repairs at all locations noted in the Civil Repair Drawings.
- Construct concrete aprons below roof drain terminations. Where sidewalks exist, remove sidewalk to nearest joint and provide sidewalk chase. Where no sidewalks are constructed, construct curb cut to allow flow out of bounded area.
- Place rocks (4- to 6-inch diameter) in concrete aprons.
- Adjust existing electrical and irrigation boxes as required.



Bert L. Howe & Associates, Inc.

Construction Consultants

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BHA #19-7096

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Plaintiff Cost:

N/A

Defense Analysis and Repair Recommendations:

This allegation is being addressed by PGG. See PGG report.

2.0 Concrete Flatwork

2.0A Non-Compliant Cross-Slope of Sidewalks

Plaintiff Description:

At some locations on the site, the cross-slopes of the sidewalks exceed 2-percent.

Plaintiff Location:

Perform repairs at all locations noted in the Civil Repair Drawings.

Plaintiff Quantity:

5 locations

Plaintiff Repair Scope:

- Remove and replace concrete as noted in Civil Repair Drawings. Coordinate between asphalt roadway, curb profile, and sidewalks to achieve geometric integration.
- Concrete removal shall be to the nearest construction/ control joint.
- Ensure that subgrade is prepared in compliance with the recommendations of a geotechnical engineer prior to the placement of concrete.
- Ensure grading and drainage direct runoff away from flatwork subbase.
- Ensure all new flatwork meets slope requirements set forth in the current applicable building code as amended by the City of Scottsdale, MAG Standard Details, and ADA/ ANSI standards.
- At all locations where new concrete flatwork is to be constructed directly adjacent to vertical building elements, provide full-depth, 1/2-inch expansion joints in compliance with applicable codes and/ or industry standards.

Plaintiff Cost:

\$ 32,703.46

Defense Analysis and Repair Recommendations:

This allegation is being addressed by PGG. See PGG report.

2.0B Non-Compliant Longitudinal Slope of Sidewalks

Plaintiff Description:

The longitudinal slopes of the sidewalks at some locations exceed the maximum allowable. Per ANSI A117.1 guidelines, the maximum allowable slope for a ramp that is part of an accessible route is 8.33-percent, and the slopes measured are excessive. The sidewalks as constructed exceed the allowable maximum slopes for ramps and are non-compliant both as ramps and as sidewalks.

Plaintiff Location:

Perform repairs at all locations noted in the Civil Repair Drawings.

Plaintiff Quantity:

N/A

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Plaintiff Repair Scope:

- Remove and replace concrete as noted in Civil Repair Drawings.
- Concrete removal shall be to the nearest construction/ control joint.
- Ensure that subgrade is prepared in compliance with the recommendations of a geotechnical engineer prior to the placement of concrete.
- Ensure grading and drainage direct runoff away from flatwork subbase.
- Ensure all new flatwork meets slope requirements set forth in the current applicable building code as amended by the City of Scottsdale, MAG Standard Details, and ADA/ ANSI standards.
- Verify final geometry using topographic survey. If required, construct code compliant stairs at entrances to buildings or at bottoms of existing stairways.
- At all locations where new concrete flatwork is to be constructed directly adjacent to vertical building elements, provide full-depth, 1/2-inch expansion joints in compliance with applicable codes and/ or industry standards.

Plaintiff Cost:

N/A

Defense Analysis and Repair Recommendations:

This allegation is being addressed by PGG. See PGG report.

2.0C Non-Compliant Landings

Plaintiff Description:

The landings at the bottoms of the stairs were constructed with slopes exceeding the 2.0-percent maximum as shown on the Civil Observation Drawings. These landings do not provide the prescriptive surface required at stairs and ramps to allow for safe usage of the sidewalk.

Plaintiff Location:

Perform repairs at all locations noted in the Civil Repair Drawings.

Plaintiff Quantity:

N/A

Plaintiff Repair Scope:

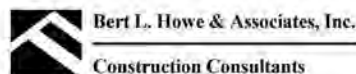
- Remove and replace concrete as noted in Civil Repair Drawings.
- Concrete removal shall be to the nearest construction/ control joint.
- Ensure that subgrade is prepared in compliance with the recommendations of a geotechnical engineer prior to the placement of concrete.
- Ensure grading and drainage direct runoff away from flatwork subbase.
- Ensure all new flatwork meets slope requirements set forth in the current applicable building code as amended by the City of Scottsdale, MAG Standard Details, and ADA/ ANSI standards. Maximum slope of landings to be 2-percent.
- Verify final geometry using topographic survey. If required, construct code-compliant stairs at entrances to buildings or at bottoms of existing stairways.
- At all locations where new concrete flatwork is to be constructed directly adjacent to vertical building elements, provide full-depth, 1/2-inch expansion joints in compliance with applicable codes and/ or industry standards.

Plaintiff Cost:

N/A

Defense Analysis and Repair Recommendations:

This allegation is being addressed by PGG. See PGG report.



Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

III. BUILDING ENVELOPE

1.0 Facade (Exterior Cladding and Sealants) Type 1 – Stucco

1.0A Missing Weep Mechanism in Stucco

Plaintiff Description:

The weep casing beads were missing at fenestration heads, stucco roof pop-outs, and soffit terminations, which violates the architectural drawings, the stucco manufacturer requirements, and the building code requirements.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- Coordinate with replacement of the WRB and the stucco system as described in Sections C.1.b and C.1.c of SBSA's report.
- Install new weep mechanisms at the following horizontal terminations.
- At window heads, slider door heads, swing door heads, and garage door heads, terminate the weep casing bead 1/4-inch above sheet metal head flashing.
- At soffits, install weeps per the architectural Detail 4/ AS.03 and manufacturer's requirements.
- Shingle-lap WRB with new weep mechanisms.
- Coordinate repair with related stucco and underlying moisture-management repair recommendations as well as all adjacent civil repair recommendations.

Plaintiff Cost:

\$33,862.76

Defense Analysis and Repair Recommendations:

SBSA asserts stucco weep mechanisms were omitted at fenestration heads, stucco pop-outs, and at stuccoed soffits. An analysis of SBSA's exemplar photos show SBSA is grouping two different conditions together, missing weep mechanisms at window heads and missing weep mechanisms at wall-to-soffit transitions. SBSA cites construction plan details to support its claim.

BHA was present for SBSA's destructive testing and observed several locations where SBSA removed stucco at window heads. The windows at this project were manufactured by MI Windows and Doors ("MI"). All the window heads exposed by SBSA were flashed according to MI installation guidelines. BHA examined the flashing and WRB tested by SBSA and did not observe any evidence of non-performance. SBSA has not provided any evidence to support this claim other than asserting the construction drawings specified it. BHA maintains that a deviation from the drawings is not, in and of itself, a defect. The project architect clearly states in the "Method of Construction" section of the General Structural Notes:

"The contractor shall be solely responsible for construction means, methods, technique, sequences, and procedure."

The intent of the architect's design is to integrate the stucco system around the window to not allow water to collect on the window head and damage the WRB. SBSA's invasive testing of the window showed the as-constructed condition is meeting the architect's intent and has performed and can be expected to continue to perform. No repairs are needed at the window heads.

As part of SBSA's destructive testing protocol, stucco was removed at several wall-to-soffit transitions. BHA observed some locations with clear evidence the lack of a weep mechanism at the soffit has allowed moisture to accumulate behind the stucco system and deteriorate the WRB. While not every wall-to-soffit

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

transition exhibited signs of water damage, the condition is problematic and should be repaired. At large wall-to-soffit locations, remove a 12-inch strip of stucco from the wall and soffit and install weeps integrated with WRB before restoring the stucco system. The repairs should be painted to match the adjacent finishes.

1.0B Non-Compliant WRB for Stucco System

Plaintiff Description:

The applied WRB does not meet the nominal weight, the number of required layers, the water resistance requirements of the applicable building code, and the ESR-3529 report for the Amerimix stucco system specified on the architectural drawings.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- Full removal and replacement of the stucco and the exterior insulation is required to address the non-compliant installation of the WRB for the existing stucco system. Remove existing WRB to perform following repairs.
- Install missing exterior sheathing and straps, as necessary, per the LFRS repairs recommended in Section A.2 of SBSA's report.
- Install sheet metal flashings per Section C.2.a of SBSA's report.
- Ensure that the WRB above is shingle-lapped with the sheet metal flashing.
- Install new WRB per the requirements of ESR-3529 for the existing stucco system.
 - Repair contractor to estimate using between two layers of Grade D kraft building paper or one layer of Grade D kraft paper with minimum water-resistance rating of 60-minutes or using Tyvek products such as Stucco Wrap or Drain Wrap as specified in Section 3.2.4 and Section 3.2.10 of ESR-3529.
- Ensure all WRB terminations shingle-lap with all surrounding rigid and flexible flashings, weeps, and accessories.
- Install EPS foam boards per repairs recommended in Section C.1.c of SBSA's report.
- Install new stucco system to comply with the current requirements of ESR-2359.
- Install lath per the stucco manufacturer and ASTM C1063.
- Install control joints at fenestration comers, floor lines, top plate/truss lines, and within the field of the wall to comply with ASTM C1063 and the stucco manufacturer.
- Install weep casing beads with 3-1/2-inch vertical legs at all stucco terminations Ensure that the WRB shingle-laps with the new weep casing beads.
- Coordinate with adjacent repairs, including underlying moisture-management and stucco repair recommendations.

Plaintiff Cost:

\$ 1,255,881.62

Defense Analysis and Repair Recommendations:

As part of SBSA's destructive testing protocol, the stucco system was removed at several locations and the water restive barrier ("WRB") was observed. SBSA observed some locations where one layer of WRB covered the solid OSB shear panel. SBSA asserts two-layers of WRB are required over OSB sheathing or if one layer is used, it must meet the water resistance requirements of the applicable building code and ESR-3529 report. BHA observed SBSA's destructive testing of the stucco and documented the appropriate WRB was installed over open framing which makes up most of the wall construction. At serval locations multiple layers of WRB was installed. BHA also noted, at some locations, a single layer of WRB



Bert L. Howe & Associates, Inc.

Construction Consultants

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

covered strips of OSB sheathing installed at floor-to-floor transitions. BHA observed, at those locations, the OSB did not run the full height of the wall. BHA examined the WRB and OSB at every location exposed and noted none of the OSB and WRB had any stains or other evidence of water damage. SBSA is alleging a technical deficiency at a few locations is a defect that requires the removal and replacement of the entire stucco system at every building. SBSA has not provided any evidence to support its claim that the:

“deficiency in material properties and number of WRB layers impairs the functionality of the stucco system as required in the building codes and the stucco manufacturer's product specifications”.

Except for the wall-to-soffit areas discussed above, the WRB installed at this project is performing. No defect exists and no repairs needed.

BHA strongly disagrees with SBSA's repair protocol. SBSA's repair to remove all the stucco, lath, EPS foam, and WRB at every building and then install new WRB and new stucco system is excessive and unnecessary. However, if the trier of fact determines a widespread repair is needed, all windows and stucco penetrations can be sealed, and the entire existing stucco exterior can be painted with a quality elastomeric paint. This much more reasonable and appropriate repair will create a weatherproof barrier on the exterior of the stucco and address all of SBSA's stucco and fenestration allegations. BHA estimates it will cost less than \$100,000 total to perform this repair at all the buildings.

1.0C Non-Compliant EPS Foam Board for Stucco System

Plaintiff Description:

Intrusive examination revealed that the foam board used at the Gallery site was generally 3/8- to 7/8-inch thick, did not have the required vertical grooves, and was installed tight to the improperly selected WRB.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- Full removal and replacement of the stucco is required to address the non-compliant installation of the EPS foam board for the existing stucco system.
- Where installed over solid substrates, remove existing EPS foam board to perform the following repairs. Also refer to other stucco repairs in this report.
- Ensure all EPS foam boards have 3/8-inch projecting tongues with compatible grooves at horizontal joints.
- At solid substrates, install new minimum 1/2-inch-thick EPS foam board with vertical grooves spaced at a maximum 12-inches on-center on the back face of the boards. The vertical grooves should be a minimum 1/4-inch wide by 1/8-inch deep as required by ESR-3529.
- As an alternative to EPS foam boards with vertical grooves, flat-faced EPS foam boards may be installed over the solid substrates provided the WRB recommended in Section 3.2.4 of ESR-3529 is used.
- Coordinate with adjacent repairs, including underlying moisture-management and stucco repair recommendations.
- Where EPS foam board repairs are necessary at open stud framing, use minimum 1-inch-thick EPS boards installed in compliance with ESR-3529.)

Plaintiff Cost:

Included in costs for 1.0B

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Defense Analysis and Repair Recommendations:

SBSA asserts the stucco manufacturer, Amerimix, required EPS foam with vertical grooves be used where the stucco was applied over solid OSB sheathing. SBSA further alleges:

"This non-compliant condition, along with the combination of other construction defects of the stucco system, will more likely than not reduce the integrity of the structural components and the general appearance of the cladding in the foreseeable future."

BHA documented the condition of the EPS foam and WRB at every location SBSA tested and did not observe any damage that would suggest the lack of grooves in EPS foam over short sections of OSB was not performing as well as the EPS foam on the rest of the wall. A technical deficiency, in and of itself, is not a defect. The EPS installed at this project is performing as intended. No defect exists. No repairs needed.

1.0D Non-Compliant Slope of Horizontal Stucco Surfaces

Plaintiff Description:

Stucco roof parapet caps, roof pop-out boxes, and pop-out boxes at front and rear elevations with inadequate slope are present at locations across all buildings.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- Repair to be performed at all stucco parapet walls and pop-out boxes sloped less than 2:1.
- Remove existing stucco, lath, and building paper as required to perform the repair as described below.
- Install continuous shims to provide a 2:1 minimum slope on stucco wall caps.
- Install new self-sealing SAM that reduces the potential for water intrusion due to fastener holes. Install new SAM over the top of the continuous shim, ensuring SAM shingle-laps over the adjacent WRB on all sides and forms a continuous saddle at the intersections with the adjacent wall.
- Reinstall stucco as described in Repair Section C.1.c.
- Repair to be performed at all stucco parapet walls and pop-out boxes sloped less than 2:1.
- Remove existing stucco, lath, and building paper as required to perform the repair as described below.
- Install continuous shims to provide a 2:1 minimum slope on stucco wall caps.
- Install new self-sealing SAM that reduces the potential for water intrusion due to fastener holes. Install new SAM over the top of the continuous shim, ensuring SAM shingle-laps over the adjacent WRB on all sides and forms a continuous saddle at the intersections with the adjacent wall.
- Reinstall stucco as described in Repair Section C.1.c.

Plaintiff Cost:

\$ 26,200.00



Bert L. Howe & Associates, Inc.

Construction Consultants

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Defense Analysis and Repair Recommendations:

SBSA asserts the stucco parapet caps and pop-out boxes, commonly referred to in Arizona as "pot shelves", are not properly sloped. SBSA further opines:

"Where stucco slope does not meet industry standards, and combined with the cracks in the stucco, water is allowed to penetrate under the stucco system."

BHA inspected every location where SBSA performed destructive testing at pot shelves and parapet caps and documented the condition of the framing exposed during the testing. None of the framing was stained or showed any evidence of water damage resulting from inadequate slope.

BHA also inspected all the roof parapet caps and observed all had positive slope. BHA did not observe any signs of standing water on top of any of the parapet caps. BHA argues the intent of the designer was prevent water from standing on the parapet caps. It doesn't matter if the slope at one spot of the parapet cap is 1 percent and another spot 6 feet away is 5 percent. What matters is the as-constructed condition is performing as intended. A technical deficiency, in and of itself is not a defect. SBSA has not provided any evidence of non-performance. No defect exists. No repairs are needed.

1.0E Deficient Self-Adhered Membrane under Horizontal Stucco System

Plaintiff Description:

The Xtraflash SAM installed by the contractor failed to self-seal around fastener holes, which allowed water intrusion resulting in damage to the moisture-sensitive building components.

Plaintiff Location:

N/A

Plaintiff Quantity:

N/A

Plaintiff Repair Scope:

- Refer to Repair Section C.1.d of SBSA's report.

Plaintiff Cost:

Included in costs for 1.0B.

Defense Analysis and Repair Recommendations:

SBSA asserts the Self Adhesive Membrane ("SAM") installed on the horizontal surfaces of the parapet caps and pot shelves has failed. SBSA further opines:

"The Xtraflash SAM installed by the contractor failed to self-seal around fastener holes, which allowed water intrusion resulting in damage to the moisture-sensitive building components. As constructed, the stucco surface cracks and the puncture holes in the deficient SAM have and will allow moisture intrusion and do not comply with the weather-resistance requirements of the applicable building code."

BHA inspected every location where SBSA exposed SAM during its destructive testing. SBSA did not perform any water testing at any of the locations. BHA documented the SAM was properly installed. One of the characteristics of the XtraFlash SAM is its ability to "self-heal" which seals any fastener penetration. SBSA has not provided any evidence fastener penetrations have caused the SAM to fail. The SAM, as installed, is performing as intended. No defect exists. No repairs are needed.

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

1.0F Missing Control/Movement Joints

Plaintiff Description:

No horizontal control joints were installed at any of the building elevations and no vertical control joints were installed on the front and rear elevations at any of the buildings.

Plaintiff Location:

N/A

Plaintiff Quantity:

N/A

Plaintiff Repair Scope:

- Refer to Repair Section C.1.b of SBSA's report

Plaintiff Cost:

Included in costs for 1.0B.

Defense Analysis and Repair Recommendations:

SBSA asserts stucco control joints are required accessories and are missing. SBSA further opines:

"Failure to install compliant control/ movement joints violates the manufacturer's installation instructions and industry standards, contributing to the cracking throughout the stucco system."

For many of SBSA's stucco allegations, SBSA cites standards that apply to traditional three-coat stucco systems. The stucco system used at this project is a one-coat system. The stucco thickness is half that of three-coat stucco. In addition, the one-coat stucco material has fiberglass or acrylic fibers added to the mix to assist in minimizing cracking. Control joints are installed in concrete or other cementitious materials to try to "control" where expected cracking occurs. While one-coat stucco is a cementitious product and does crack it does not crack the same way three-coat stucco does. Most of typically minor cracking observed in one-coat stucco occurs during the curing process. One-coat stucco does not have an on-going need to control cracking like three-coat stucco does. As such, the use of control joints in a one-coat stucco system is typical used by an architect as a design element. Such is the case at this project. SBSA argues the architect's design intent was to use control joints at every elevation, however, the architect only specified control joints on the side elevation drawings. If the architect wanted to use the same design element on the front elevation it is not unreasonable to assume the front elevation would reflect it. BHA maintains there is no practical need for control joints in a one-coat stucco system. SBSA's has not provided any evidence the lack of control joints has adversely affected the stucco in any way.

All the stucco cracks observed at this project are hairline with none being larger than 1/32 inches wide. The cracking is well within AROC guidelines. The stucco system is performing as intended. No defect exists. No repairs are needed.

2.0 Moisture-Management System (Barriers, Flashings, Drainage, Etc.)

2.0A Missing Sheet Metal Flashing at Window Head

Plaintiff Description:

The sheet metal flashings were generally missing at the fenestration heads.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%



Bert L. Howe & Associates, Inc.

Construction Consultants

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Plaintiff Repair Scope:

- Coordinate with replacement of the WRB and the stucco system as described in the stucco repair sections of SBSA's report.
- Where sheet metal flashing is missing at fenestration heads, perform the repair described below.
- Install new pre-finished sheet metal flashings with 4-inch vertical legs and horizontal legs sloped 10- to 15-degrees as detailed on the architectural plans with hemmed drip edges.
- Apply sealant at ends of sheet metal flashing to provide end dams.
- Ensure all flashing joints and comers are sealed.
- Ensure that the WRB above is shingle-lapped with the sheet metal flashing.
- Reinstall cladding per manufacturer instructions with a minimum 1/4-inch clearance between the bottom of cladding and the back of the sloped sheet metal flashing. Gap between the cladding and flashing to remain unsealed.
- Coordinate repair with related cladding and underlying moisture-management repair recommendations.

Plaintiff Cost:

\$ 19,732.57

Defense Analysis and Repair Recommendations:

SBSA asserts the window heads of every window are missing sheet metal flashing as specified in the construction drawings. SBSA further opines:

"The ineffectiveness of the flashing at fenestration heads is further compounded when cladding is installed tight to fenestration heads without a weep mechanism as discussed in Section C.1.a. This allows water to drain directly onto the fenestration frame and accumulate."

As part of SBSA's destructive testing protocol, stucco was removed from the corner of several window heads. SBSA did not perform any water testing at any window units prior to the stucco removal. BHA was present for the testing and documented the condition of the head flashing at each window tested. At every window the head flashing did not show any sign of failure. To support its claim, SBSA cites IRC section R703.8 Flashing:

"R703.8: Flashing. Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage..."

SBSA omitted the rest of the section that specifies how the flashing should be installed:

"Flashing at exterior window and door openings shall be installed in accordance with one or more of the following:

1.1. The fenestration manufacturer's installation and flashing instructions..."

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

The windows were flashed following the window manufacturers recommendations, which does not require any metal head flashing.

SBSA argues the lack of metal flashing does not comply to the construction drawings. A deviation from a non-structural detail is not a defect. BHA is unaware of any leaks at any of the windows at this project. The performance of the window installation has not been compromised. BHA maintains that intent of the code requirements has been met. No defect exists. No repairs are needed.

2.0B Non-Compliant Flashing to Stucco Interface

Plaintiff Description:

The metal flashing at the perimeter of the decks and cantilevered awnings is inset above the stucco and water drains into the stucco system below.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- At elevated decks and awnings, remove existing edge flashing and membrane/ coating to allow for stucco repairs described below.
- Remove and replace stucco as required by the architectural details 12/ A8.03 and 5/ A8.04, Coordinate with replacement of the WRB and the stucco system as described in the stucco repair sections of SBSA's report.
- Install new edge flashing at decks per Section C.4.a of SBSA's report. New deck coating and new awning TPO perimeter edge membrane will be required to facilitate the repairs. Ensure the flashing is integrated with the new deck coating and awning TPO membrane.

Plaintiff Cost:

\$ 48,307.74

Defense Analysis and Repair Recommendations:

SBSA asserts some of the balcony decks have edge metal that is buried by the stucco it is designed to cover. BHA agrees the condition is problematic and should be repaired. BHA disagrees with SBSA's excessive repair to remove the stucco and deck coating to access the existing edge metal and to reflash the decks before restoring the finishes. Where deck edge metal is buried in the stucco, extend the edge metal past the stucco face by installing new sheet metal under the existing drip edge. The new sheet metal should have a break to match the existing edge metal and be installed in a continuous bed of silicone sealant and then painted to match. No stucco or deck coating needs to be removed to facilitate this repair.

2.0C Non-Compliant Isolation Joints at Dissimilar Materials

Plaintiff Description:

Interfaces of dissimilar cladding materials with each other, fenestrations, and penetrations were generally installed without a sealant joint and a backer rod. Where installed, the sealant joint width was inadequate.

Plaintiff Location:

Buildings A-D

Plaintiff Quantity:

Qty. 100%



Bert L. Howe & Associates, Inc.

Construction Consultants

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Plaintiff Repair Scope:

- At locations where stucco interfaces with dissimilar materials, perform the following repairs. Typical locations for repair include joints at fenestrations, penetrations at all cladding types, vertical joints between cladding types, and joints between all cladding types and wood trim, including fascia trim at re-entrant corners.
- Reinstall cladding as required to address other repair recommendations, providing 3/8- to 1/2-inch-wide gap between dissimilar materials. The depth to width ratio for the joint should be equal to 2:1. At stucco, provide casing bead at edge of joint.
- Install type B backer rod and low-modulus elastomeric sealant to provide compliant butt isolation joint at dissimilar material interfaces with joint widths that are 3/8-inch or greater.
- Install polyethylene bond breaker tape and low-modulus elastomeric sealant to provide compliant fillet isolation joint at dissimilar material interfaces where the existing space is less than 3/8-inch wide or the dissimilar materials are out of plane.
- Following installation of sealant isolation joints at penetrations through the cladding, set surface-mounted objects in continuous sealant against the face of the cladding. Where applicable, profile the sealant at the top of the surface-mounted objects to promote drainage over the top flanges.

Plaintiff Cost:

\$ 14,946.68

Defense Analysis and Repair Recommendations:

SBSA asserts isolation joints at junctures between dissimilar materials is missing or is improper. From SBSA exemplar photographs in its report it appears SBSA is alleging this condition exists at windows, sliding glass doors, and stucco penetrations. SBSA does not provide any evidence of damage or non-performance.

BHA inspected the windows and stucco penetrations and did not observe any damage resulting from missing isolation joints. BHA did observe finish cracks along the tops of the adjacent CMU stairways at some buildings. At these stairways, repairs are warranted. At junctures between adjacent entry stairways, remove stucco and existing sealant, add foam backer rod and seal gap with high grade flexible sealant. Touch up paint to match adjacent finishes.

3.0 Roofing System Type 1 - Spray Polyurethane Foam (SPF)

3.0A Non-Compliant Slope to Roof Drains

Plaintiff Description:

The as-built slope measurements along the roof crickets and adjacent to the drains at the units of the buildings have slopes less than required by the project-specific drawings. In some cases, the roof is sloped away from the means of drainage.

Plaintiff Location:

Repairs to be performed at all roof decks with non-compliant drainage.

Plaintiff Quantity:

Qty. 100%

Plaintiff Repair Scope:

- Repairs to be performed at all roof decks with non-compliant drainage.
- Remove and replace membrane and underlying substrates as necessary to perform repairs described below.
- Remove and replace damaged underlying coverboard and structure, if present.
- Install tapered insulation to provide positive drainage (1/4-inch minimum) towards roof drains.
- Slope cricket a minimum of 1/4-inch-per-foot along the valley.



Bert L. Howe & Associates, Inc.

Construction Consultants

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Plaintiff Cost:

\$ 168,616.70

Defense Analysis and Repair Recommendations:

SBSA asserts the foam roofs are not properly sloped which will allow water to collect on the roof and deteriorate the roof coating. SBSA did not evaluate the roof performance beyond a visual inspection. During its visual inspection SBSA observed:

"The as-built slope measurements along the roof crickets and adjacent to the drains at the units of the buildings have slopes less than required by the project-specific drawings."

While SBSA inspected all the roofs, SBSA does not make any specific roof allegations other than improper slope. SBSA did document some very small areas of ponding. The AROC recognizes ponding on flat roofs is to be expected. The AROC Workmanship Standards states:

"Minor ponding (up to 1/2" deep in small areas equivalent to no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall."

BHA inspected all the roofs and did not observe any evidence the roofs are not performing. SBSA does note that two homeowners reported roof leaks but SBSA does not opine as to the cause. BHA is unaware if SBSA has performed any water testing on any of the roofs to determine if ponding water exceeds AROC allowable tolerances.

It is important to note that a foam roof needs to be maintained regularly for it to perform properly. BHA did not observe any evidence the roofs have received any maintenance other than minor repairs KHOV made during the PDA period of this litigation.

SBSA has not provided any evidence the roof is not draining properly. No defect exists. No repairs are needed.

4.0 Elevated Decks, Balconies, or Walkways

4.0A Non-Compliant Slope of Deck

Plaintiff Description:

Where access to elevated decks was provided, the slope of the deck at the deck edge was inadequate to promote positive drainage and allows ponding of water.

Plaintiff Location:

Repairs to be performed at all decks with non-compliant slope and drainage at edge flashing.

Plaintiff Quantity:

Building A: Units 3118, 3122, 3124

Building B: Units 3106, 3110, 3112, 3116

Building C: Units 3113, 3123, 3125, 3127

Building D: Units 3105, 3125

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

Plaintiff Repair Scope:

- Repairs to be performed at all decks with non-compliant slope and drainage at edge flashing.
- Remove existing deck edge flashing, membrane, and underlying substrates as necessary to perform repairs described below. Remove and replace damaged underlying structure, if present.
- Provide a notch equivalent to the thickness of the metal flashing and deck coating for a length equal to the horizontal leg of the flashing. Ensure the notch slopes positively towards the deck edge.
- Install new flashing and deck coating flush to the existing deck surface and sloped a minimum of 2-percent to the deck edge.
- Coordinate with repairs recommended in this report.

Plaintiff Cost:

Included in costs for 2.0B.

Defense Analysis and Repair Recommendations:

SBSA asserts the private balcony decks are not properly sloped which allows water to pond. SBSA further opines:

"As built, the ponding water that collects on top of the membrane system provides an unsafe condition for residents and will lead to premature deterioration and eventual failure of the waterproofing."

SBSA did not perform any destructive or water testing at any of the balcony decks. SBSA's opinion is limited to its visual inspection of several decks. SBSA does not provide any support to its claim the decks are unsafe or are deteriorating prematurely. BHA inspected every deck made available and did not observe any evidence the decks are not performing. BHA did note some small spots where water had ponded at a few decks, but noted the area was very shallow. The AROC Workmanship Standards regarding flat roofs applies to balcony decks. The guideline states:

"Minor ponding (up to 1/2" deep in small areas equivalent to no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall."

SBSA has not provided any evidence the private decks are not draining properly. No defect exists. No repairs are needed.

Gallery v. K Hovnanian

BHA #19-7096

Defense Response Report

This document is provided for mediation purposes only and is protected under Arizona Rules of Evidence (Title 12)

5.0 Improper Wall & Ceiling Assembly and Fire Feature at Pool

Plaintiff Description:

Not provided by SBSA

Plaintiff Location:

Not provided by SBSA

Plaintiff Quantity:

Not provided by SBSA

Plaintiff Repair Scope:

- Provide allowance for repairs. Repair scope to be determined.

Plaintiff Cost:

\$ 35,000.00

Defense Analysis and Repair Recommendations:

SBSA does not include this allegation in its report, yet Nautilus includes a \$35,000 cost for this condition in its repair estimate. It is unclear to BHA as to what the alleged defect is and, as such, BHA cannot properly evaluate it. BHA reserves the right to offer its opinion once information has been provided that supports this claim. Until then, no repairs are needed.

VI. Analysis of Nautilus' Cost of Repairs Estimate

BHA will be preparing a repair cost estimate that delineates the recommended repair protocols and quantities as outlined in the defense experts' respective reports. BHA's repair cost estimate, which includes appropriate overhead, profit, and contingency, will be Attachment #1 to this report. Based on BHA's experience and knowledge of construction practices, it is BHA's opinion that the costs presented for the work described in the BHA repair cost estimate are consistent with the current construction market conditions. It is BHA's opinion that if bids were solicited to perform the defense scope of repairs, they would be comparable to BHA's estimate amount.

In addition to the defense cost to repair estimate, BHA also evaluated Nautilus's estimate and found costs and fees that are believed to be excessive and/or unnecessary. These costs and fees serve no other purpose than to inflate the estimate total. An example of this is Nautilus' inclusion of "Architectural Professional Fees" calculated as 12% of the construction costs equating to \$331,177. Nautilus applies the 12% Architectural Professional Fees to every single cost item in their estimate, even though not a single cost item in their estimate would require any architectural design services. SBSA's repair recommendations are based on its assertion the original construction plans, manufacturer requirements, and code requirements were not followed. SBSA recommends all the issues be repaired and made compliant with the original plans and requirements. SBSA has not taken issue with the original architectural and engineering plans and does not offer any new repair design requirements. It is not unreasonable to conclude from SBSA's repair recommendations that all the design work has already provided by the original designers, and therefore, no additional design work is needed.

Exhibit C

1 IN THE SUPERIOR COURT OF THE STATE OF ARIZONA

2 IN AND FOR THE COUNTY OF MARICOPA

3 GALLERY COMMUNITY ASSOCIATION, an Arizona non-profit
4 corporation,
5 Plaintiff,

6 v. CASE NO. CV2020-008714

7 K. HOVNANIAN AT GALLERY, LLC, an Arizona limited
8 liability company; K. HOVNANIAN ARIZONA OPERATIONS,
9 LLC, an Arizona limited liability company; K. HOVNANIAN
10 DEVELOPMENTS OF ARIZONA, INC., an Arizona corporation;
11 K. HOVNANIAN COMPANIES OF ARIZONA, LLC, an Arizona
12 limited liability company; JOHN DOES I-X AND JANE DOES
13 I-X, WHITE CORPORATIONS I-X; BLACK PARTNERSHIPS I-X;
14 and GRAY LIMITED LIABILITY COMPANIES I-X,
15 Defendants.

16
17 K. HOVNANIAN AT GALLERY, LLC, an Arizona limited
18 liability company; K. HOVNANIAN ARIZONA OPERATIONS,
19 LLC, an Arizona limited liability company; K. HOVNANIAN
20 DEVELOPMENTS OF ARIZONA, INC., an Arizona corporation;
21 K. HOVNANIAN COMPANIES OF ARIZONA, LLC, an Arizona
22 limited liability company,
23 Third-Party Plaintiffs,

24 v.

25 CHAS ROBERTS AIR CONDITIONING, INC., an Arizona
corporation; DESERT VISTA, INC., an Arizona corporation;
GOTHIC LANDSCAPING, INC., a California corporation;
HOME BUILDERS SITE SERVICES OF ARIZONA, LLC, an Arizona
limited liability company; LEBLANC BUILDING CO., INC.,
an Arizona corporation; LIBERTY CONSTRUCTORS, LLC, an
Arizona limited liability company, d/b/a LIBERTY
ARIZONA; RENCO, LLC, an Arizona limited liability
company, d/b/a RENCO ROOFING; R/S SERVICE & SUPPLY,
INC., an Arizona corporation; SARGON MASONRY
CONSTRUCTION, LLC, an Arizona limited liability
company; and DOES 1-50,
Third-Party Defendants.

1 PURSUANT TO NOTICE and the Arizona Rules of
2 Civil Procedure, the videoconferenced deposition of
3 TERRY INGO, whose identity has been verified by the
4 court reporter, was taken on behalf of the Plaintiffs
5 on Monday, August 29, 2022, at 10:02 a.m., before Wendy
6 McCaffrey, Registered Professional Reporter and Notary
7 Public.

8
9 (The reporter, Wendy McCaffrey, appearing remotely via
10 Zoom videoconference from Arvada, Colorado 80004.)

11 (The deponent, Terry Ingo, appearing remotely via Zoom
12 videoconference.)

1 metal actually built up so that there is a core slope
2 at the edges of these balconies?

3 A. I don't know if it's built up at the edges.

4 Q. Do you agree that there are locations where
5 there is not sufficient slope at the edges of these
6 balconies?

7 A. I -- I disagree with that. I -- there is
8 sufficient slope at all the balconies and all the
9 decks.

10 Q. Did you take measurements of the slope at the
11 decks?

12 A. In some cases, yes.

13 Q. Did you take measurements of all of the
14 balconies and decks at the project?

15 A. Every one we had access to.

16 Q. Did you see that Nautilus had gone out and
17 done measurements of all the balconies and decks at the
18 project?

19 A. I saw their photos, yes.

20 Q. Do you take any issue with the measurements
21 that Nautilus obtained of all the decks and balconies
22 at this project?

23 A. No -- no issue with how they -- you know,
24 that they took measurements, no.

25 Q. Do you have any issue with the results of

1 those measurements?

2 A. I think their -- their conclusions, I think,
3 are wrong, that the slope is inadequate and that it's
4 creating a problematic condition. I think the water --
5 there's no evidence the water is not -- not sheeting
6 off of that -- the decks.

7 Q. Isn't there signs of water staining at the
8 edges of some of these decks?

9 A. There are at some locations where it looks
10 like some minor ponding has occurred. But there's no
11 indication that that is exceeding any of the
12 allowable -- the tolerances.

13 Q. But would that --

14 A. That was what -- the Registrar of
15 Contractors.

16 Q. But that wouldn't be indicative of a lack to
17 slope to shed all the water off of the deck or
18 balconies?

19 A. Well, these are -- these are you know,
20 wide -- wide decks. If there is a -- one or two spots
21 that are small spots that are ponding, the remainder of
22 the deck is -- is draining just fine.

23 And even those areas that, the problem --
24 that there is any kind of ponding, it's so shallow, it
25 dries up within the -- within, you know, an allowable

1 time period.

2 Q. So I just want to make sure I'm clear. You
3 don't take issue with the actual measurements that were
4 taken of the decks and balconies; you just disagree
5 that that is an inadequate condition or an inadequate
6 slope?

7 A. Yeah. My interpretation of this -- this
8 allegation is that SBA is alleging that the decks are
9 not sloped at -- which causes a -- I guess we can read
10 what they're saying, but a condition that is
11 problematic.

12 For -- for the use of it, it -- of the decks,
13 it's a -- creates a condition that -- that the coating
14 will deteriorate prematurely and stuff, and I disagree
15 with that. I think that the -- there's adequate slope,
16 and there's no evidence to support that allegation.

17 Q. I think I veered over into another defect in
18 that discussion, but that's okay.

19 A. Yeah. There -- there's some overlap, for
20 sure. Yeah.

21 Q. Yeah. Okay. So the next issue, 2.0 C,
22 "Noncompliant isolation joints at dissimilar
23 materials." You see that?

24 A. Yes.

25 Q. On the next page is the "Defense Analysis and

C E R T I F I C A T I O N

I, WENDY MCCAFFREY, Registered Professional Reporter and Notary Public within the State of Colorado, commissioned to administer oaths, do hereby certify that previous to the commencement of the examination, the deponent, TERRY INGO, was duly sworn by me to testify to the truth in relation to matters in controversy between the said parties; that the said deposition was taken in stenotype by me at the time and place aforesaid and was thereafter reduced to typewritten form by me; and that the foregoing is a true and correct transcript of my stenotype notes thereof.

I further certify that I am not an attorney nor counsel nor in any way connected with any attorney or counsel for any of the parties to said action nor otherwise interested in the outcome of this action.

My commission expires: January 31, 2024.

IN WITNESS WHEREOF, I have hereunto set my hand this 9th day of September, 2022.



Wendy McCaffrey
Registered Professional Reporter

Exhibit D

DEFECT ISSUE REPORT

Gallery Condominium Association

v.

K. Hovnanian at Gallery KKC

January 31, 2022

PREPARED FOR:

SHANNON GUERRERO HUFF, ESQ.
MOHAMAD TOKKO, ESQ.
RAI & BARONE, P.C.
3033 N. CENTRAL AVENUE
SUITE 500
PHOENIX, AZ 85012

PREPARED BY:

MC CONSULTANTS, INC.
2055 Corte del Nogal
Carlsbad, CA 92011
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INTRODUCTION

MC Consultants, Inc. has been retained by RAI & BARONE, P.C. on behalf of RenCo, LLC in the matter of Gallery v. K Hovnanian involving the Project known as The Gallery located in Scottsdale, Arizona. RenCo contracted with K. Hovnanian to provide roofing. MC Consultants has been retained to evaluate plaintiff and plaintiff Expert allegations and render opinions as to the veracity of those allegations.

MC Consultants inspected the roofs at 5 of 18 units made available by Plaintiff. Site inspections, including emergency inspections were conducted on August 13 and 23, October 6, November 12, December 14, 2021, and January 26, 2022. MC was present at Plaintiff water testing at Unit 3106 on August 23, 2021.

This report will address each alleged defect issue set forth in Plaintiff's Expert SBSA, LLC report dated June 23, 2021, and the Preliminary Estimate of Costs by Nautilus General Contractors, Inc., dated July 23, 2021, and K. Hovnanian's Expert Bert L. Howe & Associates report dated August 11, 2021.

PROJECT INFORMATION

Project Name: The Gallery
Location: Scottsdale, AZ

PROJECT OVERVIEW

Client Name: RenCo, LLC
General Contractor: K. Hovnanian at Gallery, LLC
Architect: Otak, Inc.
Structural Engineer: Felten Group
Construction Dates: 2016-2017
Jurisdiction: Maricopa County
Building & Occupancy Type: V-B / R-3
Applicable Codes: 2012 International Residential Code
2012 International Building Code
2012 International Fire Code
2012 International Plumbing Code

DOCUMENTS REVIEWED

- Construction and Design Compliance Report prepared by SBSA, dated 6/23/21
- Preliminary Estimate of Costs prepared by Nautilus General Contractors, Inc., dated 7/23/21
- Bert Howe & Associates report dated 8/11/21
- Architectural Drawings by Otak, Inc, dated 3/11/16, revised 6/8/16 and 8/2/16
- SBSA's supplemental construction and design compliance report dated October 14, 2021, (plaintiff's expert)
- Peterson Geotechnical Group's Civil and Geotechnical Engineering Evaluation Report dated August 10, 2021 (K. Hovnanian's expert – second report).
- Bert Howe's Preliminary Defense Cost of Repair Report dated August 22, 2021 (K. Hovnanian's CORE)
- Complaint, Third-Party Complaint, and Answer

- Plaintiff's Initial Disclosure Statement and First through Twelfth Supplemental Disclosure Statements
- K. Hovnanian's Initial Disclosure Statement and First and Second Supplemental Disclosure Statements
- RenCo's Initial Disclosure Statement
- Chase Roberts Initial Disclosure Statement
- Gothic Landscaping's Initial Disclosure Statement
- LeBlanc Building's Initial Disclosure Statement
- Liberty Constructors' Initial Disclosure Statement
- Desert Vista's Initial Disclosure Statement
- Sargon Masonry's Initial Disclosure Statement
- Plaintiff's Responses to Renco's First Set of Requests for Admission, First Set of Request for Production of Documents, and First Set of Non-Uniform Interrogatories
- K. Hovnanian's Responses to RenCo's First Set of Requests for Admission, First Set of Request for Production of Documents, and First Set of Non-Uniform Interrogatories
- SBSA's inspection and destructive testing photographs and field notes
- Job files of SBSA
- Arizona Registrar of Contractors ("AROC") Workmanship Standards, June 2009
- 2012 International Residential Code
- 2012 International Building Code

DESCRIPTION

The Gallery project is an 18-unit residential development in Scottsdale, Arizona (the "Project"). The Project is a townhome complex at the Southwest corner of East Earl Drive and Scottsdale Rd in Scottsdale, AZ and was constructed in approximately 2016-2017. The Project is comprised of four buildings with a total of eighteen (18) three-story townhome units. One of the buildings has three (3) units and the remaining three buildings each have five (5) units. The buildings are constructed with stucco over conventional wood framing.

C. BUILDING ENVELOPE

2.0 Moisture-Management Systems (Barriers, Flashings, Drainage, etc.)

a. Missing Sheet Metal Flashing at Fenestrations

Plaintiff allegation:

The architectural details specify 4-inch vertical leg sheet metal flashing with 1-inch drip edge and end dams at door and window heads. The flashings were detailed with 10-degree slope at door heads and 15-degree slope at window heads. The architectural details also required the WRB to be shingle-lapped over sheet metal head flashing and sealant under the drip edge to the fenestration frame. At the Gallery site, the sheet metal flashings were generally missing at the fenestration heads. The ineffectiveness of the flashing at fenestration heads is further compounded when cladding is installed tight to fenestration heads without a weep mechanism as discussed in Section C1.a. This allows water to drain directly onto the fenestration frame and accumulate. As constructed, the moisture-management system at fenestration heads is non-compliant with the architectural drawings. This non-compliant condition, along with the combination of other construction defects of the stucco system, will more likely than not reduce the functionality of the stucco system and the general appearance of the cladding in the foreseeable future.

Defense Analysis

SBSA asserts the window heads of every window are missing sheet metal flashing as specified in the construction drawings. SBSA further opines:

"The ineffectiveness of the flashing at fenestration heads is further compounded when cladding is installed tight to fenestration heads without a weep mechanism as discussed in Section C.1.a. This allows water to drain directly onto the fenestration frame and accumulate."

MC Analysis

- Sheet metal is not in client's scope of work.
- No repair offered.

B. BUILDING ENVELOPE

2.0 Moisture-Management Systems (Barriers, Flashings, Drainage, etc.)

b. Non-Compliant Flashings to Stucco Interface

Plaintiff allegation:

Metal flashing with a drip edge is installed at all deck perimeters and the perimeters of the cantilevered awnings above the end unit side doors to divert water away from the cladding below the flashing. Where the metal flashing and cladding interface is built incorrectly, the flashings cannot perform their intended function to divert water away from the cladding. Water is allowed to penetrate behind the claddings at the metal flashing interface, which results in damage to the underlying building components.

At the Gallery site, the metal flashing at the perimeter of the decks and cantilevered awnings is inset above the stucco and water drains into the stucco system below. The stucco is built out at the deck and cantilevered awning edges, which prevents the stucco from terminating behind the flashing. The architectural details illustrate stucco and wood fascia behind the metal edge flashing with a drip edge at the deck and cantilevered awnings, respectfully. At the as-constructed cantilevered awning edges, stucco was substituted for the painted wood trim. The architect specifies the edge flashing to be installed per the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) and required installation that prevents water from bucking against the cladding. At some locations, the edge flashing is installed over the stucco, which suggests the installer was cognizant of the project specifications. Stains and cracks in the stucco below the edge flashing indicate that water is not diverted away from the stucco.

Where non-compliant flashing to stucco interface exists, the as-built condition falls short of the prescriptive requirements of the relevant codes, design, and industry standards and, therefore the developer, contractor, and sub-contractors who performed the work fell below the standard of care.

Applicable Code/Industry Standard References/Project-Specific Documents:

Otak, Inc., "K. Hovnanian Homes, Gallery Townhomes," revised date August 2, 2016, Sheet AS.03 "Exterior Details," illustrates the following:

- "12/AB.03 Cantilevered Awning"*
- "5/AS.04 Deck Perimeter Flashing"*
- "10/A8.04 Deck Perimeter Flashing"*

- "9/A8.04 Deck Sheet Metal Corners"
- Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA), "Residential Sheet Metal Guidelines," First Edition, 2001, Chapter 2 "Decks," subsection 2.2 "Coated Decks," subsection 2.2.1 "Deck to Wall Flashing,"

Developer Analysis:

SBSA asserts some of the balcony decks have edge metal that is buried by the stucco it is designed to cover. BHA agrees the condition is problematic and should be repaired. BHA disagrees with SBSA's excessive repair to remove the stucco and deck coating to access the existing edge metal and to reflash the decks before restoring the finishes. Where deck edge metal is buried in the stucco, extend the edge metal past the stucco face by installing new sheet metal under the existing drip edge. The new sheet metal should have a break to match the existing edge metal and be installed in a continuous bed of silicone sealant and then painted to match. No stucco or deck coating needs to be removed to facilitate this repair.

Developer Cost - \$4,650.00

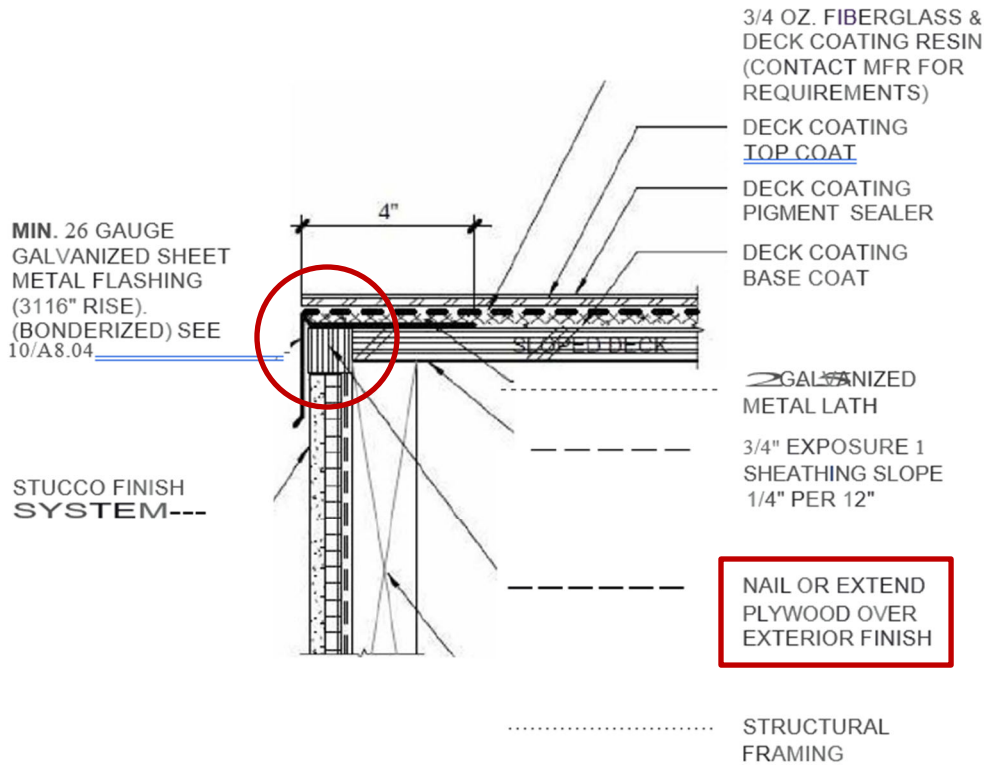
MC Analysis:

- MC did observe an improper junction of the stucco and deck edge metal at some, but not all conditions, but plaintiff has not provided evidence of leaks or damages attributable to the deck edge metal installation.



GALLERY-SBSA 001856

Deck metal properly installed over stucco



Detail 5/AS.04

- In detail 5/AS.04 Deck Perimeter Flashing (above), Note the wood block at the end of the deck 9 (circled). This block serves three purposes:
 1. A stop for the stucco
 2. A spacer for the sheet metal
 3. A nailer for the sheet metal.
- MC did not observe a clear photograph of this component of the assembly in the plaintiff photographs to confirm the block was installed.
- If the blocks were installed, then they were not sized properly, and the client has no responsibility for this issue.
- If the blocks were not installed, the responsibility falls on the framer, stucco installer, general contractor, and the client.
- Ideally for this assembly, the stucco could have been installed before the deck membrane followed by the sheet metal, which would have properly lapped the stucco. However, there are other factors to consider when sequencing a construction project. MC is not critical of the sequencing per se; however, the general contractor should have devoted enough time to ensure the blocks were properly placed before the deck coatings.
- The responsibility for this allegation includes the general contractor, framer, stucco subcontractor and our client.

C. BUILDING ENVELOPE

2.0 Moisture-Management Systems (Barriers, Flashings, Drainage, etc.)

c. Non-Compliant Isolation Joints at Dissimilar Materials

Plaintiff Allegation

Interfaces of dissimilar cladding materials with each other, fenestrations, and penetrations were generally installed without a sealant joint and a backer rod. Where installed, the sealant joint width was inadequate.

Defense Analysis

SBSA asserts isolation joints at junctures between dissimilar materials is missing or is improper. From SBSA exemplar photographs in its report it appears SBSA is alleging this condition exists at windows, sliding glass doors, and stucco penetrations. SBSA does not provide any evidence of damage or non-performance.

MC Analysis

- This allegation is not relevant to client's scope of work
- No repair offered.

D. BUILDING ENVELOPE**3.0 ROOFING SYSTEM TYPE 1 – SPRAY POLYURETHANE FOAM (SPF)****a. Non-Complaint Slope of Roof Drains****Plaintiff allegation:**

Low-slope roof systems, including those used for waterproofing on roof decks, require positive slope towards the means of drainage to allow for adequate drainage of the system. The architectural drawings and the building codes require a minimum of 1/4-inch-per-foot or 2-percent for the low-slope roof system. Crickets were detailed along walls and at upslope locations towards the roof drains.

Where non-compliant slope of the roof system exists, the as-built condition falls short of the prescriptive requirements of the relevant codes, design, and industry standards and, therefore, the developer, contractor, and subcontractors who performed the work fell below the standard of care.

Plaintiff Repair:

- *Repairs to be performed at all roof decks with non-compliant drainage.*
- *Remove and replace membrane and underlying substrates as necessary to perform repairs described below.*
- *Remove and replace damaged underlying coverboard and structure, if present.*
- *Install tapered insulation to provide positive drainage (1/4-inch minimum) towards roof drains.*
- *Slope cricket a minimum of 1/4-inch-per-foot along the valley.*

Plaintiff Locations:

Repair at 100% of roofs

Developer Analysis:

SBSA asserts the foam roofs are not properly sloped which will allow water to collect on the roof and deteriorate the roof coating. SBSA did not evaluate the roof performance beyond a visual inspection. During its visual inspection SBSA observed:

"The as-built slope measurements along the roof crickets and adjacent to the drains at the units of the buildings have slopes less than required by the project-specific drawings."

While SBSA inspected all the roofs, SBSA does not make any specific roof allegations other than improper slope. SBSA did document some very small areas of ponding. The AROC recognizes ponding on flat roofs is to be expected. The AROC Workmanship Standards states:

"Minor ponding (up to 1/2" deep in small areas equivalent to no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall."

BHA inspected all the roofs and did not observe any evidence the roofs are not performing. SBSA does note that two homeowners reported roof leaks but SBSA does not opine as to the cause. BHA is unaware if SBSA has performed any water testing on any of the roofs to determine if ponding water exceeds AROC allowable tolerances.

It is important to note that a foam roof needs to be maintained regularly for it to perform properly. BHA did not observe any evidence the roofs have received any maintenance other than minor repairs KHOV made during the PDA period of this litigation.

SBSA has not provided any evidence the roof is not draining properly. No defect exists. No repairs are needed.

Developer Repairs:

No Repair.

MC Analysis:

- MC agrees with Defense that the observed roof slopes to drains are adequate.
- Plaintiff did not demonstrate ponding on any of the roofs lasting over 48-hours. Such ponding would violate the AROC standards (#2 for flat built-up roofs and #9 for foam roofs) *“Minor ponding (up to 1/2" deep in small areas equivalent to no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall.”*
- On July 23, 2021, Nautilus Reconstruction, Contracting and Consulting temporarily repaired a roof drain with black mastic at Unit 3106. Pre-repair Plaintiff photographs indicated there were small cracks in the membrane lapping over the edge of the roof drain.
- After the Defense report dated August 11, 2021, MC inspected the interior at Unit 3106 on August 13, 2021. A section in the laundry room ceiling was cut out below the repaired roof drain and MC also observed an area of bubbled drywall in the ceiling of the master bedroom adjacent to the laundry room. On the roof MC observed a gouge in the roof membrane near the repaired drain and cracks in the black mastic placed by Nautilus. No water testing was performed.
- On August 23, 2021, MC observed water testing at the same location in Unit 3106. The bubbled drywall ceiling in the master bedroom observed on August 13 was cut out to allow for observation of roof drain underside. The back side of the drywall was stained and the framing below the roof drain was also stained. On the roof, the black mastic at the drain had been replaced or covered by a white sealer compound as was the previously observed gouge in the roof membrane. Water testing was performed, and conditions observed did not show evidence water intrusion.
- On August 13, 2021, in Unit 3123 MC observed a stain at a kitchen ceiling can light directly below the threshold at the roof access door. Plaintiff did not conduct water testing at this location, and Plaintiff failed to demonstrate the ceiling stain results from any alleged roof membrane issues.
- On January 26, 2022, MC attended a site inspection at Unit 3112. MC did not observe evidence of ponding that would exceed the previously mentioned AROC 48-hour standard. There was evidence of repairs at the curbed LG Inverter fan, T-tops, and field patches. There were three different colors of coatings present throughout the roof: dark gray, light gray and white. This suggests two roof repairs

have occurred since the original coatings were installed by the client. MC did observe slight cuts in the membrane and other mechanical damage likely from post-installation roof traffic and work being performed on the roof by others.

- In the interior, MC observed three ceiling stains in the unit. Since Plaintiff did not conduct any water testing, MC was unable to determine if the stains were active or existed before any repairs were made.

Conclusions:

- No significant roof repairs relevant to client's scope of work are warranted and the roofs are generally performing as intended.
- Though MC observed some interior ceiling drywall stains, Plaintiff has not demonstrated any damages to the interior of any units are related to leaks through the roof membrane beyond those caused by penetrations such as roof drains (plumbing) or mechanical equipment.
- The only water testing MC is aware of occurred at a Unit 3106 roof drain. Plaintiff testing did not determine if the origin of the perceived leak was caused by the roof membrane, plumbing roof drain assembly or another unknown source.

MC Repair:

Perform a limited roof tune-up to seal penetrations, cuts, and other damages to the roof membrane.

4.0 Elevated Decks, Balconies, or Walkways

a. Non-Compliant Slope of Deck

Plaintiff Allegation

Where access to elevated decks was provided, the slope of the deck at the deck edge was inadequate to promote positive drainage and allows ponding of water.

Defense Analysis

Defense Analysis and Repair Recommendations:

SBSA asserts the private balcony decks are not properly sloped which allows water to pond. SBSA further opines:

"As built, the ponding water that collects on top of the membrane system provides an unsafe condition for residents and will lead to premature deterioration and eventual failure of the waterproofing."

SBSA did not perform any destructive or water testing at any of the balcony decks. SBSA's opinion is limited to its visual inspection of several decks. SBSA does not provide any support to its claim the decks are unsafe or are deteriorating prematurely.

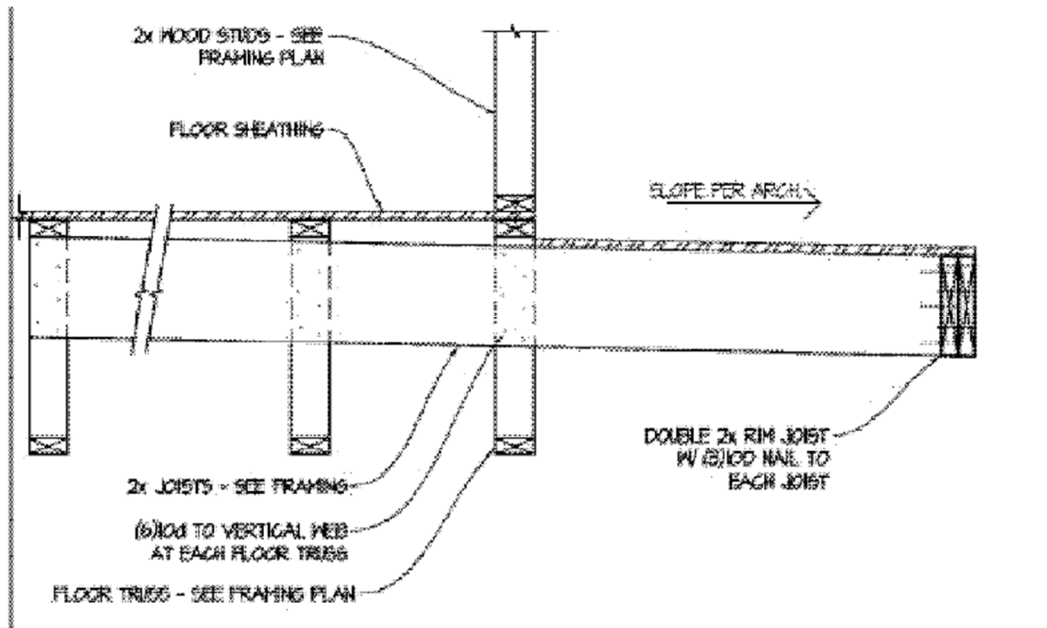
BHA inspected every deck made available and did not observe any evidence the decks are not performing. BHA did note some small spots where water had ponded at a few decks, but noted the area was very shallow. The AROC Workmanship Standards regarding flat roofs applies to balcony decks. The guideline states:

"Minor ponding (up to 1/2" deep in small areas equivalent to no more than 1/3 of span) is acceptable providing roof is dry within 48 hours after rainfall."

SBSA has not provided any evidence the private decks are not draining properly. No defect exists. No repairs are needed.

MC Analysis

- This allegation is not relevant to client's scope of work.
- Per the plans, slope was to be provided in the framing, not the deck membrane.
- Refer to Issue 2.0 b, Detail 5/AS.04, the slope is designated in the framing.
- Additionally, slope is designated in the framing in Detail 907 (below), from the Plaintiff report.



- No repair offered.


LIMITATIONS

The opinions contained in this report are solely derived in accordance with current standards of professional practices in the community where the observations have been made. Except as otherwise described herein, our opinions are based solely on visual inspections.

Standard of care is time dependent. This report has been prepared in accordance with the duty of care of forensic construction/architectural consultants as of the date on this report. We reserve the right to amend our opinions, if additional information comes to our attention, but we assume no obligation to do so.

The services performed are solely for the use of our client, RenCo, LLC. No other person or entity other than our client may rely on the opinions contained in this report without our prior written consent.

Respectfully submitted,



Chad Polivka
MC Consultants, Inc.

Exhibit E

SUPERIOR COURT OF THE STATE OF ARIZONA
FOR THE COUNTY OF MARICOPA

GALLERY COMMUNITY ASSOCIATION, an) Case No. CV2020-008714
Arizona non-profit corporation,)

Plaintiff,)

vs.)

K. HOVNANIAN AT GALLERY, LLC, an)
Arizona limited liability company;)
K.HOVNANIAN ARIZONA OPERATIONS, LLC,)
an Arizona limited liability company;)
K. HOVNANIAN DEVELOPMENTS OF ARIZONA,)
INC., an Arizona corporation; K.)
HOVNANIAN COMPANIES OF ARIZONA, LLC,)
an Arizona limited liability company;)
JOHN DOES I-X AND JANE DOES I-X,)
WHITE CORPORATIONS I-X; BLACK)
PARTNERSHIPS I-X; AND GRAY LIMITED)
LIABILITY COMPANIES I-X,)

Defendants.)

~~~~~  
AND ALL RELATED CROSS-ACTIONS. )  
~~~~~

REMOTE VIDEO CONFERENCE DEPOSITION OF
MARK DES GROSEILLIERS

Tuesday, August 30, 2022
10:02 a.m.

Phoenix, Arizona

Reported by Peggy Smith - RPR
Arizona Court Reporter No. 50726

1 this -- let's see. This is a document that is incorporated
2 in the Master Subcontract Agreement and the Work Agreement;
3 correct?

4 Q. Correct.

5 A. And it's pretty generalized and basically asking
6 us to do Energy Star requirements.

7 Q. Well, the first page lists some Energy Star
8 requirements starting at the bottom, right?

9 A. Correct.

10 Q. It's 11 pages total, at least according to the
11 marking on the bottom of the page, right?

12 A. Mm-hmm. Materials, manufacturers. So this is
13 basically -- yeah, this is our scope of work. This is what
14 I would usually go through and make sure that it's -- you
15 know, that we have everything covered.

16 Q. Okay. And each page of this document -- and I'll
17 scroll through or you can look at the version that you've
18 got starting at page 42 of the pdf -- each page of this
19 document appears to have the initials of John LeBlanc in the
20 subcontractor section at the bottom of each page; correct?

21 A. Correct.

22 Q. Okay. And this is something that you in your
23 role as a vice-president would have specifically reviewed to
24 confirm that LeBlanc was, you know, was A, being asked to do
25 what it expected to do, and B, was able to perform what K.

1 Hovnanian was asking; correct?

2 A. Correct.

3 Q. I'm not going to ask you about every single one
4 of these pages, but I am going to ask you to go ahead to
5 page 45 and then if you'd prefer to review any part of the
6 document, you know, before or in between, let me know and
7 take your time and do that.

8 A. Okay.

9 Q. Looking at page 45, there's a section at the top
10 that says Framing Coordination. Do you see that?

11 A. Yes, I do.

12 Q. Okay. The first part of that says, "Install wood
13 framing making proper provisions for work of other trades."
14 Do you see that?

15 A. Yes, I do.

16 Q. Do you remember any discussion with anyone from
17 K. Hovnanian regarding what this is or what that means?

18 A. No, I don't.

19 Q. Did you have any questions about what this meant?

20 A. I don't, no. And I didn't, but I didn't -- I
21 mean, obviously I didn't sign this either, so -- but this is
22 standard issue. We've done other work with you. It's on
23 all your contracts, I believe, usually.

24 Q. You didn't personally sign this, but you reviewed
25 this, you know, you reviewed this and the president and

1 owner of the company did sign off on this; correct?

2 A. That, I don't recall. That was a while ago. I
3 wasn't the vice-president at the time. This was signed in
4 2015 where the other vice-president who is now deceased was
5 doing that role.

6 Q. Okay. Okay. Thanks for clarifying that. The
7 document definitely includes a section I read, "Install wood
8 framing, making proper provisions for work of other trades."
9 correct?

10 A. Correct.

11 Q. And in the wood backing section, you'll see about
12 ten lines down it says, "Provide wood backing, furring,
13 stripping or blocking indicated or required for installation
14 and attachment of the work of other trades." Do you see
15 that?

16 A. Yes.

17 Q. Okay. And did I read that correctly?

18 A. Yes.

19 Q. Can you explain for the record what backing,
20 furring, stripping or blocking is?

21 A. It's a block of wood that would be installed in a
22 wall, like if you go one line down for towel bars so they
23 can actually fasten the towel bar to the wall and it doesn't
24 just go into drywall. It will go into a solid piece of
25 wood.

1 Q. And then how do you know or how does LeBlanc know
2 what's indicated or required for installation and attachment
3 of the work of other trades?

4 MR. LUDWIG: Object to the form.

5 MR. HOROWITZ: What's that?

6 MR. LUDWIG: I said object to the form,
7 foundation.

8 THE WITNESS: Okay.

9 MR. HOROWITZ: You can go ahead and respond to
10 the question if you understand it. If you don't, let me
11 know and I'll clarify.

12 THE WITNESS: I'm going to object to the form.

13 MR. HOROWITZ: Well, you don't get to make the
14 objections. Mike gets to make the objections.

15 MR. LUDWIG: He already did.

16 THE WITNESS: Mike already did. Ask it again.

17 BY MR. HOROWITZ:

18 Q. So did you need me to clarify or reword that
19 question?

20 A. Well, I mean, it lists below what we are doing.

21 Q. Okay. I want to know how does LeBlanc as the
22 framer when they have a contract or have contract documents
23 including these terms, how can you tell what's indicated or
24 required? Is that something that you get from the plans and
25 designs? Or is that something you get from another source?

1 Is that what you get from the scope of work of this
2 document?

3 A. It could be either, on the plans or other
4 sources, but we don't supply those. We just install what is
5 required by those other documents.

6 Q. Okay. Going on to page 46 of the pdf towards the
7 bottom of the page, it says, "At roofs." Let me know when
8 you're there.

9 A. I'm there.

10 Q. It says, "To install ridge and eave blocking, et
11 cetera, as required by approved construction documents to
12 ensure rigid roof construction." Did I read that correctly?

13 A. Yes, you did.

14 Q. "Cricketts and mop boards installed per approved
15 construction documents and all applicable codes and
16 specifications." Did I read that correctly?

17 A. Yep.

18 Q. Can you explain in your own words what that means
19 or what you understand that to mean?

20 A. It means that whatever is required on the
21 City-approved plans is how we install it, whatever that
22 ridge and eave blocking is.

23 Q. And --

24 A. They're telling us to follow what the plans, the
25 blueprints, approved-City plans tell us to do.

1 Q. And then, "Approved construction documents," is
2 what you're talking about, right?

3 A. Correct.

4 Q. And then the line says, "Install per approved
5 construction documents and all applicable codes and
6 specifications." Do you see that?

7 A. Yes, I do.

8 Q. Okay. What does that mean to you?

9 A. The codes and specifications would be like the
10 City of Scottsdale, which we were building in, those codes
11 would apply or International Building Codes, but those are
12 also on the City-approved --

13 Q. Okay.

14 A. -- construction documents.

15 Q. So this document is asking you to install per the
16 documents and per all applicable codes and specifications,
17 which you understand include the City of Scottsdale codes;
18 correct?

19 A. Correct.

20 Q. Going on to page 47 of the pdf towards the top
21 there's a section, "Plywood Sheathing and Oriented Strand
22 Board." Do you see that?

23 A. Yep. I do.

24 Q. Okay. And then there is a section towards the
25 bottom of that page that says "Pickup." Do you see that?

1 A. Yes, I do.

2 Q. Can you explain in your own words what you
3 understand Pickup to be?

4 MR. LUDWIG: Object to the form. You can answer,
5 Mark.

6 THE WITNESS: Pickup is after we're complete, we
7 go back and clean up after the other trades when they drill
8 through our studs and kind of make a mess.

9 BY MR. HOROWITZ:

10 Q. Okay. Can you read that? I'm sorry. Keep
11 going.

12 A. It's quality control, really. We come back
13 after -- once we're done framing, we leave, all the other
14 trades come in, the MEP -- the mechanical, electrical and
15 Plumbing -- you know, the roofer, everyone kind of comes in
16 and then we come back before drywall to clean everything up.

17 Q. Okay.

18 A. Straighten studs, make sure everything is drywall
19 ready. That's Pickup.

20 Q. Can you read that second bullet point under the
21 Pickup.

22 A. Yes.

23 Q. Read that into the record, please.

24 A. Would you like me to read it?

25 Q. Yes, that's what I'm asking you to do.

1 A. Oh. "Subcontractor shall ensure all fireplace
2 blocking, fire stops, backing, HVAC duct cripples, AC unit
3 catwalk and work platform, etc., are completed and/or still
4 in acceptable condition."

5 Q. Okay. Can you explain to me in your own words
6 what that line means?

7 A. That is -- that's what we do, pick up. We will
8 put blocking in where it got either knocked out or needed
9 for the HVAC ducts. AC unit catwalk and platforms are
10 installed through exactly what it says. I don't think there
11 were any fireplaces in this job, so that's not applicable.
12 And fire stops are -- that is a code.

13 Q. Sorry. I thought you were finished. Please
14 continue.

15 A. And fire stops are just -- it's what's required
16 to obviously stop a fire, a one hour rating, whatever the
17 rating is. Again, you have to refer back to the
18 City-approved plans for all of that.

19 Q. Could you read the last bullet point on this page
20 under the Pickup section?

21 A. "Notify the Contractor's Community Construction
22 Manager in writing of any damage caused by others that
23 requires a Variance Purchase Order prior to doing any work."

24 Q. Can you explain in your own words what you
25 understand that to mean?

