EXHIBIT 3

Gallery HOA v. K. Hovnanian
The Gallery
3104-3124 N 71st Street
Scottsdale, Arizona 85251

Civil and Geotechnical Engineering Evaluation

PREPARED BY:
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August 10, 2021
Project No. 2209

PGG Peterson Geotechnical Group
Specialists in Forensic

Peterson Geotechnical Group

Specialists in Forensic Geotechnical Engineering

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Dennis Wilenchik, Esq.
Wilenchik & Bartness
2810 N. 3rd Street
Phoenix, Arizona 85004

Subject: Preliminary Geotechnical and Civil Engineering Evaluation
Gallery HOA v. K. Hovnanian
The Gallery
3104 – 3124 N. 71st Street
Scottsdale, Arizona 85251

Dear Mr. Wilenchik:

In accordance with your request, Peterson Geotechnical Group, LLC (PGG) has performed a preliminary geotechnical and civil engineering evaluation related to alleged construction defects related to common area improvements at The Gallery Condominiums (Gallery) located south of the intersection of N. 71st Street and E. Earll Drive in Scottsdale, Arizona. We were engaged to evaluate and respond to alleged defects that were detailed in reports prepared by SBSA, Inc. (SBSA) dated July 2, 2019, and July 23, 2021 that they prepared on behalf of the homeowner's association (HOA). Our scope of work has included review and analysis of the alleged defects and the construction plans, a site visit to observe and document the condition of the condominiums and the common area improvements, and preparation of this letter detailing our preliminary observations, conclusions, and recommendations.

If you have any questions or comments regarding this report, please contact the undersigned.

Respectfully submitted,
Peterson Geotechnical Group, LLC

Bryan E. Peltzer, P.E.
Senior Project Engineer

Registered Professional Engineer (Civil) CERTIFICATE NO. 46834 BRYAN E PELTZER Date Signed 08/10/21 ARIZONA U.S.A.

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Distribution: (1) Addressee

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1. SITE DEVELOPMENT

The Gallery is a gated multi-unit condominium development located approximately 1/10th of a mile to the west of the intersection of N. Scottsdale Rd. and E. Earll Drive in Scottsdale, Arizona. The condominiums consist of 3-story, wood framed structures with stucco wall and foam roof exterior finishes. Two car garages occupy the majority of the lower level of the condominiums; kitchens, family rooms, and bedrooms are located on the second and third floors. Based upon our review of plans that were prepared prior to development and historic aerial photographs available for review at the Maricopa County Assessor's website and from GoogleEarth®, we understand the following:

- The condominiums were constructed between the 2016 and 2018; aerial photographs from January of 2016 depict the site prior to development and February of 2018 depict the site after development had finished. Prior to development, the site was used as an equipment storage/dirt parking lot. The site slopes approximately 3-feet from the north lot line down to the south lot line.
- Yards are located to the rear of each of the units, with masonry fences that surround and enclose the rear yards providing privacy. Surface drainage is collected in the rear yards which is conveyed via drainage swales or drain pipes towards the retention basins located along the north and south sides of the development. The roof drains discharge in the front yard and front yard drainage slopes towards the street.
- Relatively short (less than 5-feet) concrete driveways are located between the common asphalt drive between the units and the garages.
- A common area is located at the northwest corner of the site, between 3124 N. 71st Drive and E. Earll Drive. Improvements in the common area include a shallow swimming pool, paver pool deck, masonry and wooden covered ramada, and a masonry privacy fence.

2. PRE-CONSTRUCITON PLANNING

As part of the development of the Gallery, K. Hovnanian engaged engineering and architectural firms to evaluate the conditions at the site, prepare recommendations for development, design the streets and flatwork, and prepare plans for use during construction. With regards to the geotechnical and civil engineering work at the stie, the following sections describe our review of the work performed by ProTex and Hoskin Ryan Consultants, Inc. (HRC).

2.1 ProTex Geotechnical Evaluation

On March 18, 2015, ProTex issued a report of their geotechnical evaluation for the Gallery property to K. Hovnanian. ProTex noted that their understanding was that the project would include one- or two-story single-family homes that imparted relatively light to moderate foundation loads. The site consisted of 1.2-acres of vacant land with scattered weeds and palm trees.

As part of their evaluation, ProTex advanced two soil borings to depths of 15-feet below the existing grade. Soil that they encountered consisted of "…clayey sands and sandy clays of medium to medium-high plasticity". Laboratory testing was performed to evaluate the engineering characteristics of the soils. The testing performed by ProTex indicated the following:

- The in-situ dry density of samples collected from depths of 1.5 to 5-feet below grade ranged between 94.5 and 94.6 pounds per cubic foot (pcf). The in-situ moisture content ranged between 7.3 and 9.9-percent.
- The soil plasticity index in the upper 5 feet was 12 and 15. The soil below 5 feet had a soil plasticity index ranging between 13 and 22.
- The expansion index in the upper 5 feet was 18 (very low expansion) while the expansion index between 6 and 8 feet was 41 (low expansion).
- Response to wetting testing performed upon two relatively undisturbed samples of the native soil collapsed approximately 0.5 and 3.0-percent when saturated at approximate footing loads.

Based upon these results, ProTex provided recommendations for the design and construction of conventional (footing, stemwall, and interior floor slab) and post-tensioned monolithic foundations. Embedment depth and allowable bearing pressures were recommended for each foundation type; parameters regarding the coefficient of subgrade reaction, edge moisture variation, and maximum differential soil movement were provided for use by a structural engineer in design of the post-tensioned foundation system.

ProTex recommended that the soils at the site be over-excavated to a depth of 1-foot beneath the existing grade or the finished pad grade, whichever was lower. After removing the soil, the underlying soils should be scarified and recompacted. Recommendations for site grading were provided to address the potential for post-construction movement due to the loose native soils

that were encountered near the surface during the subsurface evaluation. Recommendations were also included for controlling the drainage at the site during and after construction of the homes. Recommendations were also provided for pavement sections for the local/residential street at the site in accordance with the City of Scottsdale's design requirements

2.2 Hoskin-Ryan Consultants Civil Improvement Plans

HRC prepared the civil engineering improvement plan set for the Gallery. HRC signed and sealed the original plans on March 31, 2016; the as-built certification was sealed on October 27, 2016. The plan set included sheets depicting the construction of the grading and drainage, paving (asphalt and concrete flatwork), sanitary and storm sewer, and associated details. Information that we gleaned from review of the plans included the following:

- A site map depicts Lots 1-8 located along the west side of N. 71st Street and Lots 9-18 located along the east side of the street. We should note that SBSA provided an aerial photograph on page 12 of their 2021 report which labels the buildings as A, B, C, and D; we have adopted their nomenclature to provide clarity in this report.
- Surface runoff in the front of the units and roof runoff was designed to be collected and directed to the concrete curb and gutter (in the front yards). Rear yard drainage flows to area drains (for Lots 1-8) or a drainage swale (for Lots 9-18) and then directed towards on-site retention basins at the corners of the site.
- Area drains (depicted in Section A on Sheet 3) from Building A appeared to collect and direct rear yard runoff to the retention area at the northwest corner of the site; area drains from Building B appeared to collect and direct rear yard runoff to the retention area at the southwest corner of the site.
- Section B on Sheet 3 depicts slope away from the rear wall of the homes at Lots 9-18 into a drainage swale that is oriented north-south along the eastern edge of the site. The drainage swale is depicted with a high point and grade break between Lots 14 and 15. In this regard, runoff from the rear yards of Building C is directed to the retention basin at the northeast corner of the site and runoff from Building D is directed to the retention basin at the southeast corner of the site.

Concrete sidewalks are depicted between the front yards of the homes in Buildings A and B and N. 71st Street, paralleling the street. Entry sidewalks are also depicted from the street to the stairs that are located at the north and south ends of each of the buildings. The units that are located at the building ends were constructed with entry doors midway between the 1st and 2nd floor elevations.

3. HOA ALLEGATIONS & EXPERT REPROTS

In their July 3, 2019, letter to K. Hovnanian at Gallery, LLC/K. Hovnanian Developments of Arizona, Inc. (K. Hovnanian), Burg, Simpson, Eldredge, Hersh, Jardine, P.C. (Burg Simpson) noted that they represented the HOA with respect to alleged construction defects at the condominium units and within the common areas. Burg Simpson retained SBSA to evaluate the allegations and included their report as an attachment to the letter.

3.1 SBSA Reports

SBSA issued two reports on behalf of the HOA to Burg Simpson. The initial report, entitled *Notice of Claim Summary*, dated July 2, 2019, and the second report was entitled *Construction Design and Compliance Report*, dated June 23, 2021. Based upon information that SBSA included in the reports, it appears that SBSA initially visited the site on December 19, 2018 and returned on May 13 and 14, 2019 to perform destructive testing; observations and conclusions related to those site visits were contained in the July 2, 2019 report. Dated photographs in their June 23, 2021, report indicate that SBSA visited the site in March of 2021. PGG was not present during the SBSA inspections.

Based upon our review of these reports, SBSA was provided with the pre-construction geotechnical report, civil engineering grading and drainage plans, and the structural foundation plans. With regards to the civil and geotechnical issues, SBSA's evaluation included a review of these design documents, the site visits noted previously, a review of various building codes, standards, and manufacturer's installation recommendations, and preparation of their reports that contained the alleged construction defects and their recommendations. The following sections detail information that SBSA included in both of their 2021 report and are included in the most recent cost estimate.

A.1. Structural – Compliance with Geotechnical Report

- SBSA reviewed the United States Department of Agriculture, Natural Resources Conservation Service's Web Soil Survey (NRCS WSS) website for information regarding the soil conditions at the site and noted that near surface soils at the site consisted of Mohall loam. SBSA noted that the website lists the soil as "...somewhat limited for shallow foundation systems, due to minor shrink swell issues (rated at 0.05), that would be moderately favorable for shallow foundation system use". (2019 SBSA report, page 2)

- SBSA also noted that with regards to roadways and streets "…the site is considered limited due to the low strength of the on-site soils (rated at 1.00) and, to a lesser degree, the shrink swell associated with the loam". (2019 SBSA report, page 4)
- SBSA provided a review of the information contained within the March 18, 2015 ProTex report. SBSA noted that the information contained in the Natural Resources Conservation Service's Web Soil Survey website "…varie[d] somewhat from the findings contained within the ProTex report…". (2021 SBSA report, pages 20-23)
- Felten Group (Felten) was noted as the structural engineer of record. SBSA indicated that the general notes in the structural plans by Felten were "…generally consistent with the ProTex recommendations". (2021 SBSA report, page 24)

B.1.Civil – Grading and Drainage

- Hoskin Ryan Consultants, Inc. (HRC) was noted as the civil engineer of record for the development of the Gallery and provided a narrative of their review of HRC's plans and report. SBSA observed that the Drainage Design Report by HRC dated November 17, 2015 noted a waiver for the requirement to store runoff on-site was obtained for the project and that storm runoff was removed from the site via a 90-inch diameter storm drain at E. Earll Street. (2021 SBSA report, pages 30-31)

B.1.a – Drainage Bounded by Concrete Flatwork

- SBSA was critical of unpaved areas that are bound by concrete flatwork next to the foundation of the buildings/units. SBSA alleged that stormwater ponds in these areas and that the geotechnical report and structural drawings recommend against such conditions due to the "…potential for adverse effects due to the collapsible soils…". SBSA alleges that surface runoff, roof runoff, and air conditioner condensate that is allowed to drain into these areas "…creates ongoing conditions of high moisture content in the soil adjacent to the buildings". They further allege that "…it is reasonable to assume that this condition will impair the bearing capacity of soils below the buildings' post tension slabs on grade, resulting in a loss of structural integrity of the slabs and the supported building elements". SBSA cited the "…existing Mohall Loam…" and it's "…somewhat limited rating for construction of buildings without basement due to its shrink-swell potential" as potentially problematic with respect to the long-term foundation performance. SBSA alleges that at the unpaved areas bound between flatwork and the building/unit foundations, "…large quantities of water are able to infiltrate into the bearing soils below the foundations, sidewalks, and driveways". (2021 SBSA report, pages 31-32)
- Numerous codes and portions of industry standards are referenced to provide the foundation for SBSA's opinions regarding the unpaved landscape areas bound by concrete flatwork and building/unit foundations. Many of the references note settlement and/or cracks of foundation/flatwork elements that can occur due to soil movement that is triggered by moisture content increases from ponding adjacent to such elements. (2021 SBSA report, pages 32-37)

- Captions for the example photographs included in the SBSA report state that the roof scuppers discharge "drain water adjacent to foundation bound by concrete flatwork into the electrical vault". The photograph does not depict an electrical vault, but rather a water meter. (2021 SBSA report, page 38)
- SBSA recommends that repairs include a site survey between the curb and front elevation of the units, removal and replacement of sidewalks and curbs, with modifications performed to regrade unpaved areas, install drains/sidewalk chases, and adjust the "electrical and irrigation boxes". (2021 SBSA report, page 200)

B.1.b. Non-Compliant Management of Concentrated Flows

- SBSA alleges that at "…the Gallery site, the discharge of roof drainage directly into the undrained areas creates a condition where large quantities of water area able to infiltrate into the bearing soils below the foundations, sidewalks, and driveways". They allege that the "…condition constitutes a deficiency that directly violates the requirements of the site-specific geotechnical report and impairs the functionality of the site to direct surface flows away from the structures". By citing portions of the ProTex geotechnical report that discusses the possibility for collapsible soils, SBSA appears to take the position that such drainage conditions will lead to or have led to post-construction soil movement. (2021 SBSA report, pages 40-41)
- SBSA opined that "drainage conveyance structures" were required at the roof scuppers to convey roof runoff into the curb/gutter system at the edges of the streets. Further, SBSA opined that such device would coney drainage into the curb/gutter system without flowing on top of the existing sidewalks. (2021 SBSA report, page 40)
- SBSA recommends that repairs include construction of concrete aprons below the roof drain terminations, with installation of sidewalk chases at locations where sidewalks exist. (2021 SBSA report, page 200

B.2 Concrete Flatwork

- SBSA notes that the concrete flatwork at the site serves several purposes: pedestrian and vehicle egress and building access and site drainage conveyance. As such, they note that several competing sets of codes and requirements were required to be adhered to in the design and construction of the flatwork. (2021 SBSA report, page 47)

B.2.a – Non-compliant Cross-Slope of Sidewalks

- SBSA notes that details in the HRC plans for the sidewalk in front of the homes on the west side of N. 71st Street (Lots 1-8) depict maximum cross-slopes for sidewalk flatwork as 2.0-percent, while MAG standard detail depicts the same cross-slope as 1.5-percent and City of Scottsdale Standard Detail 2210 depicts the cross-slope as 1.0-percent.
- SBSA alleges that cross-slopes in excess of 2-percent exist on the sidewalk flatwork at some locations. SBSA notes "[t]here is generally no evidence of settlement of the

sidewalks or adjacent grade, an indication that the sidewalks were originally constructed with the non-compliant cross-slopes".

- Sidewalks from the street to the upper levels of buildings located in Tracts D and E were also noted to contain 4-foot wide concrete sidewalks that SBSA opines were required to have been constructed per MAG Detail 230. SBSA alleges that the cross slopes of these sections of flatwork exceed the maximum allowable of 1.5-percent per MAG Detail 230. SBSA also contends that the Otak Architectural plans "...require that the construction comply with the 2012 IRC, ICC/ANSI 11.7.1, and 2010 ADA standards". A cross-slope of 4.1-percent is depicted in a photograph at the northeast corner of Building A and a cross-slope of 3.0-percent is depicted in a photograph at the southeast corner of Building B. (2010 SBSA report, pages 47-52)
- SBSA recommends that repairs include removal and replacement of concrete to the nearest construction/control joint, preparation of the subgrade, and ensuring that "...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/ANSO standards". Full depth, ½-inch wide expansion material to be provided where flatwork directly abuts building foundations. (2021 SBSA report, page 201)

B.2.a – Non-compliant Longitudinal Slope of Sidewalks

- SBSA noted that the maximum allowable longitudinal slope for a ramp that is part of an accessible route is 8.33-percent per ANSI A117.1. SBSA noted that the longitudinal sidewalk slopes they measured ranged between 10 and 15.5-percent and were "...attributable to poor construction". SBSA recommends that all concrete flatwork at locations "...where these conditions occur..." (exceed 8.33-percent) be removed and replaced, with "...code-compliant construction...".
- "Applicable code/industry standard references/project-specific documents" that are referenced by SBSA include the Paving Notes included on sheet 5 of 7 of the HRC plans, City of Scottsdale Amendments to the International Building Code, The International Residential Code, among others. The sections of these codes and references that are noted generally address accessibility requirements for disabled persons.
- SBSA recommends that repairs include removal and replacement of concrete to the nearest construction/control joint, preparation of the subgrade, and ensuring that "...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/ANSO standards". SBSA notes that stairs may be required in order to achieve compliance with their recommendations. Full depth, ½-inch wide expansion material to be provided where flatwork directly abuts building foundations. (2021 SBSA report, page 201)

B.2.c – Non-Compliant Landings

- SBSA notes that the 2012 International Residential Code provides requirements for landings at the top and bottom of stairways which includes minimum dimensions and

maximum cross-slopes. SBSA alleges that the cross-slopes at the bottoms of the stairs exceed the maximum allowable of 2.0-percent.

SBSA recommends that repairs include removal and replacement of concrete to the nearest construction/control joint, preparation of the subgrade, and ensuring that "…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/ANSO standards". The maximum slope is also noted to be 2.0-percent. Full depth, ½-inch wide expansion material to be provided where flatwork directly abuts building foundations. (2021 SBSA report, pages 201-202)

4. PGG EVALUATION

PGG was retained on behalf of K. Hovnanian by Wilenchik & Bartness to evaluate and respond to the geotechnical and civil engineering related allegations of construction defects that are contained within the Burg Simpson letter and the SBSA report. To date, our scope of work has included review and analysis of background documents, site visits to observe and document the condition of the alleged conditions, and preparation of this letter.

4.1 PGG Site Visit

PGG personnel visited the site on October 14 through 16, 2019 to observe and document the condition of the alleged defects in the units and in the common areas. During the site visits, we were able to evaluate the condition of the interior and exterior of the homes, focusing upon the allegations contained within the July 2, 2019, report by SBSA. As we noted previously, several of the allegations contained within the June 23, 2021, SBSA report were not alleged at the time of our site visit in 2019. We have not been afforded an opportunity to re-inspect the site in light of the more recent allegations.

During our site inspections, we generally noted the following:

- The homes appeared to be performing well from a geotechnical standpoint. Little to no distress that we would consider to be an indication of post-construction foundation movement was observed in the interior or exterior finishes of the homes.
- Distress to the interior and exterior finishes that we did observe was generally cosmetic in nature and not in excess of the Workmanship Standards for Licensed Contractors as established by the Arizona Registrar of Contractors. Distress that we observed generally

included hairline wide drywall cracks in ceilings, nail pops, trim separations at door frames, and hairline to 1/32-inch wide concrete cracks.

- Area drains and fence block drains were observed in the rear yards of units in Buildings A and B (Lots 1 through 8), which was consistent with the intent of the HRC grading and drainage plans. Based upon our review of the HRC plans, surface runoff was to be directed towards area drains located at a corner of each rear yard, that were serviced by a 12-inch diameter solid HDPE pipe that would daylight at the retention basins in the northwest and southwest corners of the site.
- Fence gates provided an outlet for surface runoff in the rear yards of Buildings C& D (Lots 9 through 18), consistent with the HRC grading and drainage plans. Based upon our review of these plans, the surface runoff for units in Building C (Lots 14 through 18) would flow out beneath the fence gates from the rear yards, into the to the swale along the eastern side of the site and to the retention basin at the northeast corner of the site. Surface runoff from the units in Building D (Lots 9 through 13) would flow from the rear yards into the swale, but to the retention basin at the southeast corner of the site. A grade break and high point in the swale was noted near the lot line between lots 13 and 14.
- Small landscape areas were observed between the entry sidewalks, driveways, common sidewalk along the street, and the building foundation. The areas were landscaped with plants/shrubs and gravel ground cover. Water meter valve boxes were located within some of these areas and roof suppers were also observed to discharge in a few of these areas. These areas were noted to have sufficient slope to away from the buildings and towards the street and the height of the sidewalk or curb along the street was relatively shallow. In general, it appeared that roof runoff (discharged from the scuppers) and surface drainage would drain towards the curb, flowing over top of the concrete sidewalk and/or curb into the gutter along the street.

4.2 PGG Response to SBSA Allegations

As we previously discussed, part of our engagement was to respond to the allegations of construction defects by SBSA. The following sections contain our responses to those allegations in the SBSA 2021 report.

SBSA Allegation:

A.1. Structural – Compliance with Geotechnical Report

PGG Response:

In their review of the geotechnical information available for the project, SBSA implies that there is some inconsistency between the information contained within the NRCS Web Soil Survey and the ProTex pre-construction geotechnical report. SBSA notes that according to the NRCS WSS, there are construction limitations due to the soils present at the site. It is our

opinion that the NRCS WSS provides generalized guidance that is intended to be utilized on rural projects in lieu of a pre-construction geotechnical report. Applicable use of the information is indicated on the NRCS WSS website:

> *"Soil surveys can be used for general farm, local, and wider area planning. Onsite investigation is needed in some cases, such as soil quality assessments and certain conservation and engineering applications."*

Language from the NRCS WSS indicates that the "suitability and limitations ratings" for "dwellings without basements" noted:

> *"Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2-feet or at the maximum frost penetration, whichever is deeper."*

As such, this information is generic information and should not be used in lieu of a site-specific geotechnical study. In fact, a site-specific study should supersede the information contained within the NRCS WSS website.

As part of their site-specific geotechnical study, ProTex provided earthwork recommendations for the site that mitigated the potentially problematic conditions that were generally indicated by the NRCS WSS and specifically uncovered by the advancement of their soil borings and laboratory testing. In our opinion, this makes any generalized problems contained in the NRCS WSS a moot point as the soil conditions at the site have been engineered to be suitable for construction of the Gallery.

SBSA observes that the NRCS WSS provides a suitability and limitation rating of very limited for development of streets and roads. However, we should point out that the soil type noted by the NRCS WSS (Mohall Loam) is quite common in the Phoenix/Scottsdale area and that local geotechnical and civil engineers have developed pavement sections and designs that accommodate the limitations of such soil conditions. As we noted previously, ProTex provided recommendations for the design and construction of the pavement section of the road at the site. Therefore, the ProTex evaluation was much more in-depth than the information contained in the NRCSS WSS and provided site-specific recommendations to address the soil conditions, it is our opinion that there are no inconsistencies between the information contained within the

NRCS WSS and the ProTex reports. Furthermore, during construction, ProTex was retained by K. Hovnanian to perform compaction testing to ensure the building pads were built in accordance with their recommendations. In a letter dated September 1, 2016, ProTex states "In accordance to your request ProTex has completed the moisture and density testing following processing of the building pads. The density test results are in accordance to the specifications included in the Geotechnical Investigation conducted by ProTex the PT Experts, LLC (Job No. 4222), dated March 18, 2015)".

SBSA Allegation:

B.1.a – Drainage Bounded by Concrete Flatwork

PGG Response:

In general, SBSA alleges that landscaped areas bound by concrete flatwork (common sidewalk, entry sidewalk, driveway, and building foundations) in front of some of the units trap surface runoff, which could potentially lead to a moisture content increase in the soils beneath the flatwork and building foundations and cause post-construction movement and damage.

In our opinion, SBSA fails to recognize that earthwork recommendations by ProTex were provided to mitigate the potential for post-construction movement to occur. SBSA's concern is based upon what ProTex found during their evaluation of the in-situ condition of the soils at the site; earthwork recommendations were provided to mitigate those findings. Further, it is our understanding that SBSA has not advanced any soil borings, collected any soil samples, or performed any laboratory testing. Nowhere in their report do they identify any distress to the interior or exterior finishes of the homes or the concrete flatwork at the site as having been the result of post-construction soil movement. As such, SBSA has not alleged that there is any resultant damage, and they are not able to demonstrate that there is the potential for post-construction movement should the soils beneath the flatwork or building foundations experience an increase in their moisture content or become saturated.

Furthermore, based on our observations, it appears most of the water in these areas will flow towards the curb/sidewalk and into the street. In addition, we found no indication of soil movement in the flatwork or residences indicating that this condition had resulted in problems.

We also reviewed special inspection reports by ProTex performed during construction at the site. Reports dated November 21, 2016, March 24, 2017, June 15, 2017, and October 18, 2017, indicate that drainage inspections were performed by ProTex near the completion of the project and the drainage was found to be in compliance with the plans and specifications.

SBSA Allegation:

B.1.b. Non-Compliant Management of Concentrated Flows

PGG Response:

In general, SBSA alleges that discharge of roof runoff into the landscape areas bound by concrete flatwork is non-compliant with the pre-construction geotechnical report by ProTex. SBSA opined that discharge of roof scuppers into these areas "…creates a condition where large quantities of water are able to infiltrate into the bearing soils below the foundations, sidewalks, and driveways". SBSA notes that "[d]rainage conveyance structures are required…" as part of the repairs to prevent water from crossing over sidewalks and pedestrian access routes in order to flow into the gutters along the street.

As we noted previously, SBSA has failed to produce photographs of resultant damage to the homes or concrete flatwork at these locations. No laboratory testing or logs of any exploratory soil borings have been included in their reports or produced either that justify their assumptions. The reference to "large quantities of water" infiltrating into the ground has not been demonstrated to be possible through any experimentation such as performance of percolation testing.

In addition, the notion that portions of sidewalk are required to be removed and replaced with sidewalk chases to convey surface runoff beneath the sidewalk rather than allowing surface runoff to flow over the sidewalk is contrary to nearly all developments in the Phoenix/Scottsdale area. Drainage swales that convey roof runoff from rear, side, and front yards commonly abut or terminate at the concrete sidewalk flatwork that parallels roadways in residential subdivisions; such practice is common and accepted. Furthermore, as stated above, ProTex visited the site near completion of the project and approved the as-built drainage conditions at the site.

SBSA Allegation:

B.2.a – Non-compliant Cross-Slope of Sidewalks

B.2.a – Non-compliant Longitudinal Slope of Sidewalks

B.2.c – Non-Compliant Landings

PGG Response:

Due to the similarity of the allegations, these responses have been combined. In general, SBSA alleged that the cross-slopes and longitudinal slopes as well as the dimensions of (or lack thereof) landings in the concrete flatwork violated various accessibility codes. SBSA notes discrepancies between slopes depicted in the HRC plans, MAG standards, and City of Scottsdale standards.

However, what SBSA omits is that the Gallery is a gated community with private streets and sidewalks. As such, MAG standards and City of Scottsdale standards are not applicable as there is no public right-of-way. ADA standards also do not apply to the private sidewalks at the Gallery.

During our evaluation, we noted that the distance between the asphalt street and the front of the homes in Buildings A and B on the west side of the street was relatively short. Due to the elevation change across this distance (which provides flood protection for the interior of the homes) a relatively steep slope is present; the entry sidewalks between the entry door and the street sidewalk follow this slope.

During our evaluation we also noted that many of the homes have entry doors on the second floor that are accessed by a set of stairs; in addition, the homes are three-story dwellings with interior stairs and no elevators. It appears that SBSA is attempting to apply ADA standards which do not apply to this gated development.

While the repair recommendations by SBSA may make the short stretch of concrete flatwork accessible, what is left unmentioned in their report is that it would provide an accessible route to a set of stairs. In other cases, SBSA has acknowledged that due to the elevation change across the portion of flatwork that they are recommending removing and replacing, that the replacement panel would include steps. Both of these instances illustrate the conflict between the SBSA recommendations.

4.3 PGG Recommendations

Based on our observations at the site and our experience with numerous residential projects, it is our opinion that SBSA has not demonstrated that defective civil/geotechnical conditions exist that have resulted in problems at the site. As such, we offer no repair recommendations at this time.

5. LIMITATIONS

The geotechnical and civil engineering services described in this report have been conducted in general accordance with the standard of care exercised by geotechnical and civil engineering consultants. No warranty, expressed or implied, is made regarding the conclusions, and recommendations presented in this report. Our conclusions and recommendations are based on an analysis of the observed site conditions, the references listed, and our experience with similar projects. If additional information becomes available, PGG reserves the right to update our opinions as appropriate.

6. DOCUMENTS REVIEWED

Burg Simpson Eldredge Hersh Jardine, PC., *Notice of Claim, The Gallery*, dated July 3, 2019

Hoskin Ryan Consultants, Inc., *Improvement Plan, Gallery,* dated

ProTex, *Geotechnical Evaluation, 71st and Earll*, dated March 18, 2015

ProTex, *Finish Grade and Roof Inspection, Building A Units 1-3*, dated November 21, 2016

ProTex, *Finish Grade and Roof Inspection, Building B Units 4-8*, dated October 18, 2017

ProTex, *Finish Grade and Roof Inspection, Building C Units 14-18*, dated March 24, 2017

ProTex, *Finish Grade and Roof Inspection, Building D Units 9-13*, dated June 15, 2017

ProTex, *Building Pad-Post-Tension Foundation*, dated September 1, 2016

SBSA, Inc., *Notice of Claim Summary – Gallery*, dated July 2, 2019

SBSA, Inc., *Construction and Design Compliance Report*, dated June 23, 2021