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Harbortown Homeowners Association
c/o Ms. Nichole Dillon-Lee/ Manor
1820 Gateway Drive, Suite 100
San Mateo, CA 94404

Harbortown SB326 Inspection Report

WJE No. 2022.3823

Dear Harbortown Homeowners Association:

Wiss, Janney, Elstner Associates, Inc. (WJE) has performed inspections as required by California Senate Bill 326 (SB326) for the Harbortown residential community, located in San Mateo, California. Homes are located on Shoreline Drive, Wharfside Road, and Harbor Seal Court. WJE provided structural engineering and building envelope inspection services in collaboration with Saarman Construction, who (under a separate agreement with the homeowners' association) assisted with access and provided construction services related to opening and reclosing of inspection openings. This report summarizes WJE's observations and recommendations. Figures referenced in this letter report follow at the end.

1.0 BACKGROUND

SB326, signed into law in August 2019, requires that inspections be performed of exterior elevated elements (EEEs) and associated waterproofing systems in wood-framed multi-family residential condominium buildings. The inspections are required to be performed prior to January 1, 2025, and reinspection is required every nine years thereafter.

SB326 requires that inspection be provided for EEEs that rely in whole or in part on wood or wood-based products for structural support or stability. The EEEs include balconies, decks, porches, stairways, walkways/breezeways, and entry structures that are outside of the exterior walls of the building, and their supports and railings. EEEs are within the scope of SB326 when the balcony, porch, etc. is more than six feet above the adjacent ground. The inspection also includes associated waterproofing elements. The purpose of the inspection is to determine that these elements are in a generally safe condition and performing in compliance with applicable standards. In order to achieve this, the inspection seeks to assess whether the observed EEEs are generally free from hazardous conditions caused by fungus, deterioration, decay, or improper alteration that would endanger the life, limb, health, property, safety, or welfare of the public or the occupants of the building.

Harbortown is a complex of 31 two-story wood-frame residential buildings (or building groups), constructed in the late 1970's and early 1980's. Each building contains between four and twelve residential units. Buildings 1, 6, 17, 18, 20, 22, 24, 27, and 29 are referred to as townhouse-type buildings (Figure 1) for purposes of this report, while the balance of the buildings are referred to as condominium-type buildings (Figure 2). Each of the condominium-type buildings is a grouping of three buildings, two on

either side of a courtyard that will be referred to as street-side buildings and a third building that will be referred to as a back-side building. See Figures 3 and 4 for diagrams summarizing building types and EEEs. A residential complex plan showing the groupings and building numbers is provided as Appendix A.

Harbortown EEEs include entry stairs and landings providing access to the second-floor units and one or more balconies or decks (referred to as decks for purposes of this report) at each townhouse unit and condominium-type building second floor unit. The construction of the second-floor decks varies throughout the complex, and includes exposed wood framing, concealed wood framing with exposed waterproofing, and concealed wood framing with waterproofing covered by concrete topping slabs.

Based on information made available by Manor, we understand that buildings 1-16 and 25 are supported on deep concrete pier foundations, while the balance of the buildings are supported on shallow foundations. The deep foundations are understood to have been provided because the soils at these buildings are susceptible to significant settlement. We understand that significant settlement of site soils at these buildings has occurred (estimated up to 1.5 feet based on very limited WJE observations). While the site settlement does not have a broad affect on the EEEs, there are a few instances where the soil conditions and settlement do affect these elements.

2.0 OVERVIEW OF SB326 INSPECTIONS

The Harbortown EEEs are grouped as follows for discussion of observations and recommendations:

- Unit Decks Not Over Garages. These are divided into two groups:
  - Concealed Unit Deck Framing (Figure 5, six per condominium-type building),
  - Exposed Unit Deck Framing (Figure 6, two per condominium-type building, one per townhouse unit),
- Unit Decks Over Garages (Figure 7, four per condominium-type building, one per townhouse unit),
- Entry Stairs and Second Floor Landings. These are divided into two groups:
  - Street-Side Buildings. Entry stairs and landings for the groupings of condominium-style buildings closest to the street, including storage/garbage and electrical room enclosures under the stairs (Figures 8 and 9, four per condominium-type building), and
  - Back-Side Buildings. Entry stairs and landings for the groupings of condominium-style buildings furthest from the street (Figure 10, two per condominium-type building).

The following EEEs were not inspected by WJE because they have walking surfaces not more than six feet above adjacent ground, and therefore are outside of the SB326 inspection scope:

- Decks, patios, or similar construction at the first-floor units, and
- Privacy fences or guardrails at the first-floor level.

While these items are not within the inspection scope for SB326, it is important that they be maintained in a safe condition.

2.1 Visual Inspections

WJE conducted visual inspection of the Harbortown EEEs between September 21 and 29, 2022. Because the wood structural framing and sheathing are concealed by finishes in many locations, the visual inspections focused on looking for visual indicators that water is infiltrating into the wood framing and sheathing, or that the waterproofing system is not performing as intended. Such visual indicators include, but are not limited to, water staining, extensive biological growth on top of decks, and finish conditions suggesting potentially trapped water. Visual inspections were supplemented with more detailed inspections through inspection openings, discussed later in this report.

SB326 requires a visual inspection that includes a statistically significant sample of EEEs; statistically significant is defined in SB326 as "…a sufficient number of units inspected to provide 95 percent confidence that the results from the sample are reflective of the whole, with a margin of error of no greater than plus or minus five percent." WJE initially targeted visual assessment of 100 percent of the EEEs but was not able to gain access to inspect 100 percent due to owner availability, owner health concerns, and other limiting factors. A list of the units not accessed by WJE is provided in Appendix B.

The portion of the EEEs WJE was able to access for visual inspections is shown in Table 1. For decks with exposed framing, deck "access" was sometimes limited to observation and photo documentation of the deck framing from publicly accessible areas (i.e., landscaped areas outside the ground-floor patios or public boardwalks). Overall, roughly 85% of the EEEs were accessed. Based on the access achieved and the patterns identified in observed conditions, it is WJE's opinion that the portion that was accessed is consistent with the intent of SB326 and provides a high level of confidence that the results are reflective of the whole.

Table 1. EEEs Accessed for Visual Inspection

Number of EEEs	Entry Stairs and Second Floor Landings	Unit Decks Not Over Garages	Unit Decks Over Garages	Total EEEs
Total	132	224	136	492
Not Accessed	0	32	41	73
Accessed	132	192	95	419
Percent Accessed	100%	86%	70%	85%

2.2 Inspection Through Inspection Openings (Detailed Inspections)

Because visual inspection does not permit direct observation of the wood framing and sheathing for stairs and decks with concealed framing, the visual inspections for those elements were supplemented with inspections made through openings in the finish materials. This allowed direct observation of the wood framing and sheathing, and thereby direct observation of whether the waterproofing systems are protecting the wood framing and sheathing from deterioration. In addition, observation of framing and sheathing below guardrails provided an indication of whether water infiltration into the guardrail systems was occurring. WJE conducted inspections through inspection openings between November 29 and December 2, 2022. The following describes our detailed inspections through inspection openings.

2.2.1 Unit Decks Not Over Garages – Concealed Deck Framing

At 30 unit decks not over garages with concealed framing, inspection openings were created through the ceiling soffit below by cutting two slots approximately six inches wide in the ceiling soffit plywood panels. See Figure 11 as an example of location and extent. Following inspection, strip vents were installed at the inspection slots.

2.2.2 Unit Decks Over Garages

At 22 garages, inspection openings were created through the garage ceiling by cutting two access openings approximately 24 inches by 32 inches in the garage ceiling gypboard. See Figure 12 as an example of extent. Locations varied based on conditions observed in the garage. Following inspection, new gypboard was installed to close the inspection openings, with the following two exceptions:

- At the 1146 Shoreline garage (Building 15), the existing ceiling and wall gypboard had already been partially removed at the time of our inspections. We were able to make the required inspections without removing additional gypboard. Following inspections, the gypboard was left in the condition in which it was found.
- At the 1123 Shoreline garage (Building 30), an active leak was identified at the time of inspection. Based on discussion with Manor, the inspection opening was left open pending the leak being addressed.

2.2.3 Entry Stairs and Second Floor Landings – Street Side Buildings

At fifteen entry stairs and landings in street-side condominium buildings, inspection openings were created at the ceiling of the garbage enclosure by cutting an opening approximately two feet by two feet in the gypboard. In addition, at the adjacent electrical room below the second-floor landing, inspection openings in the ceiling gypboard were opened to allow observation of the stair framing. See Figures 13 through 15 as examples of location and extent. Following inspection, the inspection openings were reclosed.

2.2.4 Entry Stairs and Second Floor Landings – Back Side Buildings

At five entry stairs and landings in back-side condominium-type buildings, inspection openings were created at the underside of the second-floor landing by cutting two slots approximately six inches wide in the ceiling soffits. See Figure 16 for approximate location and extent. Following inspection, strip vents were installed at the inspection slots.

3.0 OBSERVATIONS AND DISCUSSION

The following summarizes WJE's observations from both the September 2022 visual inspections and the November to December 2022 inspections through inspection openings. Where appropriate, we have also included preliminary discussion and recommendations related to our observations; however, a detailed discussion of recommended repairs is provided in Section 4 of this report.

3.1 Unit Decks Not Over Garages - Concealed Deck Framing.

Six decks at each condominium-type building fall in this grouping, meaning they have concealed framing and are not located over a garage, for a total of 132 unit decks. WJE performed visual inspections of 100 of these decks and detailed inspections through inspection openings of 30 decks. See Figures 17 and 18 for common deck configurations.

The construction of these unit decks includes 2x solid sawn wood joists at 16 inches on center and plywood floor sheathing. Deck top surfaces consist of either a concrete topping slab over an unknown waterproofing system or an exposed waterproofing deck system; approximately half of the decks are of each system. Where the concrete topping slab is present, the general condition of the underlying waterproofing deck system could not be assessed. Where exposed, the original waterproofing has an appearance consistent with a trowel-applied deck covering. The system that originally defined this category of waterproofing systems is Dex-O-Tex Weatherwear, which is applied over a slipsheet and when installed correctly has a Class A fire rating. It is not known whether the installed waterproofing is Weatherwear or a similar system. Typically, this type of exposed system is maintained by periodic installation of a liquid-applied traffic coating, leaving the underlying trowel-applied system in place. The Harbortown decks have this type of overcoating. The soffit at the underside of the deck framing consists of plywood siding panels at all locations.

Visual Inspections of Decks

Visual inspection of the top side of the decks did not reveal any conditions which indicated that the structural framing has been compromised due to an inadequately functioning waterproofing system, with exceptions of the unit decks at 816 Wharfside (Building 2) and 941 Shoreline (Building 26), which will be discussed in the subsection pertaining to our detailed inspections. For the decks inspected, the top side inspections revealed waterproofing performance issues, including:

- Widespread occurrences of bubbling, peeling, cracking, and delamination within the field of the exposed waterproofing overcoating system (Figure 19 to 20),
- Occasional locations of cracking at the deck perimeter where edges are turned-up (Figure 21),
- Occasional extensive biological growth on the concrete topping slab, indicating retention of water for extended periods of time and likely caused by inadequate deck drainage (Figure 22),
- Locations with water ponding on the deck, and some deck drains that were clogged and not draining freely (Figure 23),
- Occasional scuppers that are reverse sloped or in other ways not functioning efficiently (Figure 24), and
- Widely varying downspout systems, including some downspouts that deposited water from the roof gutters onto decks rather than routing to drainage systems (Figure 25).

The observed conditions do not directly indicate that water intrusion and damage to structural framing will occur, but they are risk factors. It is suspected that the lack of proper preparation of the substrate and

inadequate application of the overcoating has led to the overcoating conditions observed. Repair is recommended as discussed in Section 4.1 of this report.

Visual inspection of the underside of the decks showed that the plywood ceiling soffit panels were generally in good condition, with the majority not having visual signs of water intrusion or decay damage.

Visual Inspections of Exposed Wood Posts and Beams

The exposed wood posts supporting the decks are logs rather than standard lumber posts. An estimated 14% of these posts (14 out of 100 inspected) have decay damage at the bottom or top of the post (Figure 26). The extent of the decay damage does not rise to the level of requiring emergency shoring, but repair of the affected posts is needed. Two additional posts are recommended for repair based on other observed conditions.

The deck beams appeared to be free of deterioration of structural concern, with the exception of one beam at 1088 Shoreline (Building 13), which has decay damage at the weather-exposed end of the beam (Figure 27). The decay damage is very local to the end and does not require emergency shoring but will require repair.

Visual Inspections of Guardrails

Visual inspection of the decks also included the second-floor deck guardrails. The portions of the guardrail wood framing exposed to view (typically sections of guardrail top rails) were checked for decay and deterioration, as were portions of the trim that retain glass infill panels in place. No occurrences of widespread decay of concern were noted, but there were a series of conditions in which local deterioration of the exposed top rail (Figure 28) and/or other exposed framing (Figure 29) were observed. This is in addition to complex-wide siding condition issues affecting both EEEs and non-EEE locations.

In several locations it was observed that existing guardrails were notably out of plumb (Figure 30). In these locations either damaged framing or improper framing repair is suspected but could not be verified. These locations will need to be opened to determine required repairs.

Overall approximately 10% of the guardrails (10 out of 100 decks inspected) are estimated to currently require repair.

Detailed Inspections

Detailed inspections through the inspection openings allowed direct observation of the deck framing members and deck plywood sheathing. Based on our observations we believe that some of the decks have experienced partial reconstruction since original construction. In 29 of the 30 locations opened, there was no indication of ongoing water intrusion, decay damage, or other deterioration of structural concern. In some locations minor water staining was observed, but the water staining was generally believed to have occurred at some time in the past and did not indicate an ongoing water intrusion issue. At 941 Shoreline (Building 26), more prevalent water staining was seen, and local decay damage was seen at one joist (Figure 31). The condition has not reached the point where emergency shoring is required, but repair of the waterproofing and framing at this location is recommended.

For the unit deck at 816 Wharfside (Building 2), conditions observed on top of the deck indicate cracking and a hump in the exposed waterproofing just outside of the unit sliding glass door (Figure 32). The resident communicated that this section of the deck makes squishing noises when walked on after rain. Water is likely penetrating the waterproofing system at this location and collecting at the hump. When observed through the inspection opening below, there was no sign of water intrusion to the underside of the plywood sheathing or deck framing. At this unit the waterproofing is not performing adequately and will likely continue to deteriorate, eventually permitting deterioration of the plywood sheathing and deck framing. Removal and replacement of the full waterproofing system (both underlying system and overcoating) at this unit is recommended.

Observation through inspection openings of sheathing and deck framing below the guardrails did not give indication of widespread water intrusion of concern originating from the guardrail systems above.

3.2 Unit Decks Not Over Garages - Exposed Deck Framing.

Unit decks with exposed framing occur at two units in each of the condominium-type buildings and one in each unit of the townhouse-type buildings for a total of 92 unit decks. WJE performed close-up visual inspections of 71 of these decks, with the balance being observed from the building perimeter because access to the deck or ground-floor patio was not provided by homeowners. See Figures 33 and 34 for common deck configurations.

The construction of the decks with exposed framing generally includes 2x decking boards and 2x wood joists at 16 inches on center (Figure 35). The deck joists are cantilevered and continue into the unit interior, with blocking between the joists at the unit exterior wall. In a limited number of locations, the original cantilevered joists have a second joist alongside, resulting in 2-2x joists at 16 inches. Based on our observations we believe the second joists start at the building exterior wall and are not cantilevered (i.e., these joists do not continue back into the enclosed unit).

Visual Inspections of Decks

Visual inspections included observing the wood framing and periodic probing with an awl where potential decay or deterioration was suspected. Inspections revealed the following conditions:

- Localized wood decay at the top of deck joists ranging from ½" to 1" in depth was noted at roughly one third of decks inspected (Figure 36). Decay noted was typically limited to a couple joists per deck or was isolated to locations where the joists had been notched for flashing.
- Occasional locations of significant wood decay at deck joists were observed at roughly 10 percent, (nine of 92 decks inspected) (Figure 37). The decay typically extended most of the depth of the joist and was noted at several of the joists in the affected decks.
- Indications of previous deck repairs were noted at roughly one third of decks inspected. Signs of previous repairs included deck joists with a second joist alongside (i.e., sistered deck joists), decks with manufactured deck board instead of the original wood decking, and locations of deck joists that had been cut off/notched and infilled/patched (i.e.: Dutchmen installed) (Figure 38 and 39). Many of the repairs do not appear to have had engineered designs. , The observed repairs to the joists that have

involved cutting/notching and infilling/sistering have resulted in weakening of the decks. In no locations was the existing condition believed to create a safety hazard, however a safety hazard could be created if additional non-engineered repairs are installed.

- The wood decking condition was noted to be fair to poor at decks inspected. At roughly one third of decks inspected (approximately 23 of 71 decks where access was provided) we noted distress to the deck boards, consisting of deck nails that were withdrawing (popping), weathered deck boards, localized wood decay, biological growth, etc. (Figures 40 and 41).

Visual Inspections of Guardrails

Visual inspection of the decks also included the second-floor deck guardrails. The portions of the guardrail wood framing exposed to view (typically sections of guardrail top rails) were checked for decay and deterioration. No occurrences of widespread decay of concern were noted, but there were a series of conditions in which local deterioration of the exposed top rail and/or adjacent exterior finishes and trim were noted (Figure 42).

Overall just under 10% of the decks (approximately 6 of 71 decks where access was provided) are estimated to need guardrail repairs.

3.3 Unit Decks Over Garages.

There are four unit decks that extend over garages at each condominium-type building and one deck over a garage at each townhouse-type unit, for a total of 136 unit decks over garages. The deck sizes vary by location, with some unit decks extending over more than one garage and others falling over a single garage. At some townhouse units, the decks over garages also cantilever past the front of the garage. See Figures 43 and 44 for common deck configurations. WJE performed visual inspection of 95 of these decks and detailed inspections through inspection openings of 22 decks.

The construction of the unit deck/garage roof includes 2x wood joists at 16 inches on center and plywood floor sheathing. Similar to the unit decks with concealed framing, the top deck surface either consists of a concrete topping slab over an unknown waterproofing system or an exposed waterproofing deck system. WJE identified approximately 29 of the 95 decks inspected to have exposed waterproofing and the balance to have concrete topping slabs. Where the concrete topping slab is present, the general condition of the underlying waterproofing deck system could not be assessed, except by checking for signs of leakage below the underlying waterproofing. Where exposed, the original waterproofing has an appearance consistent with a trowel-applied deck covering. As noted previously, the system that originally defined this category of waterproofing systems is Dex-O-Tex Weatherwear. It is not known whether the installed waterproofing is Weatherwear or a similar system. The exposed systems have since been overcoated with a liquid-applied traffic coating. The soffit at the underside of the deck is primarily garage ceiling, finished with gypboard. Some of the townhouse-type units have decks that cantilever past the garage and the cantilevered portion of the deck has plywood ceiling panels.

Visual Inspections of Decks

Visual inspection of the top side of the decks did not reveal any conditions which outright indicated that structural sheathing and framing was likely to be compromised due to inadequate functioning of the waterproofing system. The top side inspections did reveal waterproofing performance issues, including:

- Widespread occurrences of bubbling, peeling, cracking, and delamination within the field of the exposed waterproofing system (Figure 45),
- Occasional locations of peeling and cracking at the deck perimeter where edges are turned-up (Figure 46),
- Occasional extensive biological growth on the concrete topping slab, indicating retention of water for extended periods of time and likely caused by inadequate deck drainage (Figure 47),
- Locations with water ponding on the deck, and some deck drains that were clogged and not draining freely,
- Occasional scuppers that are reverse sloped or in other ways not functioning efficiently, and
- Widely varying downspout systems, including some downspouts that deposited water from the roof gutters onto decks rather than routing to storm drain systems.

None of the observed conditions noted above directly indicate that the waterproofing system is not protecting the wood sheathing and framing as intended, but each is a risk factor.

Visual inspection of the underside of the decks from the garages revealed widespread water intrusion, with approximately one quarter of the garages (20 of the 95 decks visually inspected) having signs of ongoing water intrusion and most garages having signs of past water intrusion (i.e., water staining that appeared to be old and locations of patched ceiling and wall finishes from previous repairs). Indicators included active biological growth (Figure 48), water staining on the garage ceiling and wall gypboard as well as framing and sheathing, and water trails across the garage floor. In many cases the gypboard in the garage was seen to have been extensively patched in the past and often the water staining was on both the original gypboard and the newer patched gypboard (Figure 49). In several of the garages gypboard was already removed at the time of our inspections; from speaking to the homeowners, we understand the removal was related to ongoing water intrusion investigations being performed by the HOA. A number of the residents also indicated that they were aware of active water leaks occurring in their garages or the garages of neighbours (decks for one unit often extend over garages that are associated with a different unit). The garages with ongoing water intrusion were primarily below decks with concrete topping slabs, but some were also below decks with exposed waterproofing.

Visual Inspections of Guardrails

Visual inspection of the decks also included the second-floor deck guardrails. The portions of the guardrail wood framing exposed to view (typically sections of guardrail top rails) were checked for decay and deterioration. No occurrences of widespread decay of concern were noted, but there were a series of conditions in which local deterioration of the exposed top rail were observed (Figure 50).

In several locations it was observed that existing guardrails were notably more flexible than typical (Figure 51). In these locations either damaged framing or improper framing repair is suspected, and repair is needed. These locations will need to be opened to determine required repairs.

Overall, approximately 10% of the guardrails (11 of 95 decks inspected) are estimated to require repair of visible features. We anticipate that additional needed repairs will be identified as repairs to deck waterproofing are implemented.

Detailed Inspections

Detailed inspections through the inspection openings supplemented the visual observations with direct observation of the deck framing members and deck plywood sheathing. Both prevalent water intrusion and water staining of the framing and sheathing was systematically observed. Decay damage to the sheathing and framing was, however, seen only in a very limited number of locations and over limited extents. Decay damage to wall framing and sheathing was observed at 842 Wharfside (Building 3) and 1146 Shoreline (Building 15) and will require repair. We anticipate that further repairs will be identified as waterproofing repairs are implemented.

Water intrusion is suspected to occur primarily at the deck to wall interface and at the scuppers. It is likely that some damage has been occurring to the wall system (both the guardrail walls above and the garage walls below).

3.4 Entry Stairs and Second Floor Landings – Street-Side Buildings

In each street-side condominium-type building there are two stairs, one facing the street and one at the back side for each garage block, for a total of 88 entry stairs at street-side buildings. The lower portions of the stairs are fully exposed to weather, while the upper portions of the stairs and second floor landing fall over trash enclosures and an electrical room. Sheet metal cladding encloses the stringer beams and extends between the stringers to form a covering over the space below the stairs. The stairs have wood solid-sawn stringers and precast concrete treads. The entry landings are wood-framed 2x joists with plywood floor sheathing. The landings have a concrete topping slab cast over an unknown waterproofing system (Figure 52 and 53).

Visual Inspections of Entry Stairs and Landings

WJE performed visual inspections of all 88 entry stairs. Inspections included observing the exposed portions of the stairs and entry landings. Because the wood stringers were wrapped in cladding, direct observation of the wood stringers was limited to portions that were occasionally exposed at the beam ends. In one instance, decay damage was identified at an exposed stringer end.I Inspections of the clad stringers also included looking for visible signs of leaking or disruption of the sheet metal or loose treads that might indicate damage to the underlying stringer.

Damage or disruption of the stair cladding was observed at five locations. At 933 Shoreline (Building 25) it was observed that a portion of the stair cladding has moved out of position, allowing water to access the garage wall framing at about mid-height on the garage wall (the stair wraps around the corner of the garage) (Figure 54). This appeared to be a local condition that might relate to differential settlement.

Repair of this flashing is needed; when the cladding is being repaired, the underlying beam should be checked for decay damage. At the other four locations the flashing/cladding was observed to be deteriorated and require repair.

Observation of the entry landing waterproofing was not possible because it was covered with a topping slab. Visual observations at the top of the deck indicate a generally good condition, with locations where sealants need to be maintained and metal connectors painted to protect against corrosion.

WJE's visual inspections also included observing the interior of the trash enclosures and electrical closets. In approximately 15% of the electrical rooms (13 of 88 entry stairs), WJE observed water intrusion that caused moderate to extensive water staining and in some cases deterioration of the wall and ceiling gypboard and biological growth on the gypboard.

Visual Inspections of Guardrails

Visual inspection of the stairs also included the stair and second-floor landing guardrails. The portions of the guardrail wood framing exposed to view (typically sections of guardrail top rails) were checked for decay and deterioration. The visible portions of the guardrails were observed to be in generally good condition. Local decay damage requiring repair was identified at three of the stairs.

Detailed Inspections

WJE performed inspections using two groups of inspection openings at each of 15 entry stairs. One group of inspection openings was through gypboard in the ceiling of the trash enclosures. Behind the gypboard WJE was able to observe fiberboard that was directly below the sheet metal covering (Figure 14). The second group of inspection openings in the electrical room ceiling (Figure 15). Through these openings WJE was able to observe to a limited extent the beam supporting the stair stringers, and a limited portion of adjacent landing framing and sheathing.

The stair and landing framing and sheathing observed through the inspection openings in the electrical room ceilings had indications of water staining, but no decay damage was seen. Based on condition of the gypboard, the water intrusion was believed to be ongoing. At two of the 15 entry stairs, it was noted that bolts typically used to fasten the stair stringers to the supporting beam were no longer present. When looking from the exterior it appeared that a different type of stringer connection had been used. The opening at the trash enclosure exposed what appeared to be fiberboard sheathing immediately below the stair metal cladding. The fiberboard was observed to have moderate water staining, but no indication of ongoing water intrusion thought to impact the stair framing.

Based on the observed water intrusion into the electrical rooms and on conditions seen on the landing above, it is believed that the entry deck drainage is not performing as intended. Ongoing water intrusion is of concern not only because of the potential for ongoing damage to finishes and wood framing, but also because water intrusion at electrical wiring and equipment could be hazardous. It is possible that the water intrusion is related to water management at the deck area rather than the waterproofing system itself. There are two possible ways to proceed. One is to simply replace the entire waterproofing system

with a new system designed to properly manage water. The second is to further investigate the water intrusion at one or more units, and determine if a less invasive and costly repair can be made.

3.5 Entry Stairs and Second Floor Landings - Back-Side Buildings

In each back-side condominium-type building there are two entry stairs and entry landings providing access to the two second floor units, for a total of 44. The stairs are fully exposed to weather, while the entry landing falls over the entry porches for the units below. Sheet metal cladding encloses the lower portions of the stair stringer beams, while the upper portions are exposed (Figure 55 and 56). The stairs have wood solid-sawn stringers and precast concrete treads. The entry landings are wood-framed 2x joists and plywood. The landings have a concrete topping slab cast over an unknown waterproofing system. The landing soffit is enclosed with plywood panels.

Visual Inspections of Entry Stairs and Landings

WJE performed visual inspections of all 44 entry stairs and landings. This included observing the exposed portions of the stairs and landings. Observation of the waterproofing systems indicated the landings sloped toward the guardrail and, in some cases, permitted water to enter into the framing below. Typically there was some kind of biological growth but only minor decay of exposed structural elements. At several locations WJE observed water draining from the top of the deck into the ceiling soffit and onto the top of the support post. During the course of the inspections, WJE observed water dripping from entry landing ceilings and spoke to residents who reported similar observations. At 1130 Shoreline (Building 15) we observed a decay-damaged plywood soffit indicating water intrusion at the framing above (Figure 57) Based on these observations, we believe that water intrusion into the entry landing framing is reasonably widespread.

The stair stringers were observed to have widespread decay damage, ranging from minor damage to damage posing a safety hazard. Decay damage to stringers was seen at approximately half of the stairs (19 of 44 entry stairs). Stringers at four stairs have subsequently been repaired. We also observed a number of locations where we believe that stringers have been replaced since original construction. In a lot of locations, the decay damage occurs in a pocket where the stair tread abuts the stair (Figure 58) but other damage types have also been seen (Figure 59).

Following the initial visual inspections in September 2022, WJE reported to Manor that four of the entry stairs had decay damage of significant structural concern for which emergency temporary shoring was recommended. The stairs were to (Building/Unit): 11/1030, 26/941, 28/1007 and 31/1141. This information was originally transmitted by email and phone conversation on September 29, 2022, with WJE providing a follow-up memo on October 25, 2022 (Appendix C to this report). Rather than implementing shoring, the HOA instead chose to bring in a contractor to repair the damage. Neither WJE nor Saarman were involved in the design or construction of the repairs. WJE noted that repairs to the stairs had been completed at the end of WJE's on-site inspection in December 2022; WJE did not, however, perform reinspection of the stairs following completion of repairs.

The decay damaged stairs will require repair. In addition, we anticipate that ongoing regular inspection of the stairs will be needed to maintain them in a safe condition.

Visual Inspections of Guardrails

Visual inspection of the stairs also included the stair and second-floor landing guardrails. The portions of the guardrail wood framing exposed to view (typically sections of guardrail top rails) were checked for decay and deterioration. The visible portions of the guardrails were observed to be in generally good condition. Local decay damage requiring repair was identified in only two locations.

Visual Inspections of Exposed Wood Posts

The exposed wood posts supporting the decks are logs rather than standard lumber posts. Some of these posts have decay damage at the bottom or top. The extent of the decay damage did not rise to the level of requiring emergency shoring, but repair of the affected posts is needed. Repair is recommended at approximately a quarter of the posts (9 of 44 entry stairs).

Detailed Inspections

Detailed inspection through the inspection openings supplemented the visual observations with direct observation of the deck framing members and deck plywood sheathing. Inspection openings were made in five entry landing soffits. Of these five, three were observed to have water staining that indicated ongoing water intrusion, one was observed to have an active leak, and one was observed to have decay damaged framing (1007 Shoreline, Building 28).

Based on the observed water intrusion and conditions seen on the deck above, it is believed that the entry deck drainage is not performing as intended. It is possible that the water intrusion is related to water management at the deck area rather that the waterproofing system itself. There are two possible ways to proceed. One is to simply replace the entire waterproofing system with a new system designed to properly manage water. The second is to further investigate the water intrusion at one or more units and determine if a less invasive and costly repair can be made. If the second approach is going to be taken, it is suggested that the plywood soffits be removed from all of the entry decks to permit identification of any deterioration to sheathing and framing.

3.6 Other Observations

During the course of the SB326 inspections, general observations were made of the overall buildings that fall outside of the scope of SB326 inspections. We would like to bring the following observations to your attention because they relate to items that can affect the performance of the EEEs or the safety of owners and residents while using or accessing them.

Throughout the complex the existing siding was seen to be in various states ranging from good to poor condition, with the conditions of trims, fascias, etc. varying similarly. These conditions can lead to water intrusion, both at and away from EEEs. Other needed maintenance was identified include painting to protect metal from corrosion and maintaining of sealants.

Downspouts and scuppers on the decks could be improved to much better control water. This includes downspouts from the roofs that drain water onto second floor decks, and scuppers that have reverse slopes and are not properly flashed and integrated into the building envelope.

We understand that a number of the buildings are supported on deep concrete pier foundations due to the soft soils on the site and that settlement of site soils since construction has been significant. During our inspections, WJE noted that significant settlement appears to have occurred at the base of a number of entry stairs. This has created stair riser heights that are significantly out of building code compliance (Figure 60). While not directly related to structural safety, these dimension changes can make the steps less safe for the residents to use. In addition, there are vertical gaps to the on-grade concrete construction at the bases of the stairs. WJE did not investigate the current structural support as they appeared to be functioning at this time. We recommend alterations to the on-ground concrete walkways to bring stair riser heights back into compliance. We also recommend that the stair structure be further investigated to identify what, if any, repair is required as part of the repairs to the surrounding flatwork.

During the course of inspections, several of the residents noted that their decks had been jacked upwards in the past. Based on our knowledge of site conditions, this suggests that the home is on deep pier foundations, while the deck posts are not, leading to settlement at posts supporting the deck. Continued settlement of this type should be anticipated and will likely require periodic repair work.

It was also noted that the privacy fences and guardrails at the first-floor level (which were not part of the SB326 inspections) were in many cases deteriorated and in need of repair.

4.0 RECOMMENDATIONS

The following provides discussion and recommendations for items that are part of the SB326 inspections. The objective of this section is to provide a general understanding of the types and locations of repair. The recommendations need to be read with the understanding that because our inspections were primarily visual, variations in concealed conditions would be anticipated. These repairs are intended to supplement rather than replace a robust ongoing maintenance program; we saw evidence of ongoing repairs in many of the inspected areas and anticipate that similar ongoing repairs will continue to occur.

For each type of repair, the units that are known to require repair are listed. Since WJE was not able to access all of the units during our inspections and since the access that was provided was sometimes limited, there may be additional units with similar conditions that also require repair.

While some of the recommended repairs can be performed by a contractor, many of them will either benefit from or require a design professional to provide repair specifications and/or repair plans and oversight during construction. WJE observed a number of locations where previous repair work appears to have been implemented without design or specifications and is not performing as well as it should. Many of the repairs would also benefit from using one or more units as mock-ups to better understand needed repair scope and methods. Repair work can also benefit greatly from use of waterproofing installers that have been trained and approved by the waterproofing system manufacturer.

While SB326 does not specify time limits for completion of repairs identified by the inspections, in order to allow the Harbortown HOA to work the repair work into their schedule and budget planning, we have provided recommendations of repair priority for each of the repairs. The noted priority is based on our professional opinion regarding how quickly the current condition might proceed to posing a significant safety hazard to residents.

Items that require immediate stabilization or repair have already been brought to the attention of Manor and were repaired by the time WJE's inspections were being completed. For items noted as high and very high priority, we recommend that the HOA immediately start planning for design and implementation of the repair work. Should it be necessary to prioritize the high and very high priority items, we recommend that very high be given top priority. For items noted as medium priority, we recommend than plans be made for implementation over the next several years.

Also note that once work (other than emergency repairs) is started on a particular element (deck, stair, etc.) it will likely be most cost effective to complete all needed work on that element, regardless of the noted priority.

4.1 Unit Decks Not Over Garages - Concealed Deck Framing.

The EEE inspections identified the unit decks with concealed framing to be in generally good structural condition with limited instances of deterioration. With the exception of two decks, the inspections did not reveal conditions that would indicate the structural sheathing or framing has been compromised due to inadequate functioning of the waterproofing. Repair is required for a number of conditions, as summarized in Table 2.

Table 2. Repair Recommendations for Unit Decks Not Over Garages – Concealed Framing

Item	Description & Location	Repair Priority
R1	Posts: Repair exposed deck posts with decay damage at the top or bottom. Building/Unit Number: 3/830, 5/878, 8/940, 9/966, 9/976, 10/1018, 12/1066, 13/1076, 13/1090, 14/1104, 16/1152, 25/929, 28/1005, 30/1119, 23/1205 (repair spall at base), 23/1219 (stabilize loose blocks).	Medium
R2	Railings: Repair deterioration in guardrail top rails, trim holding glass in place, expose and repair framing for leaning sections of guardrail. Building/Unit Number: 3/840, 5/876, 10/1018, 10/1022, 25/1130, 15/917, 25/933, 26/941, 26/953, 31/1147.	High
R3	Beam: Repair decay damaged beam at unit deck. Building/Unit Number: 13/1088.	High
R4	Waterproofing: Remove existing originally installed waterproofing system. Design and install new waterproofing system, and associated flashing and drainage. Building/Unit Number: 2/816	High
R5	Waterproofing and limited sheathing and framing: Replace waterproofing and repair framing and sheathing as required. Building/ Unit Number: 26/941.	High
R6	Waterproofing: Overcoat the existing waterproofing with a new traffic coating. Building/Unit Number: All with exposed waterproofing (except units which require waterproofing replacement)	Medium

Based on the bubbling, peeling, cracking, and delamination of the waterproofing overcoat, removal of loose material and reapplication of the overcoating is recommended. It is suspected that the lack of proper preparation of the substrate and inadequate application of the overcoating has led to the

conditions observed. As part of this work, it is recommended that mock-ups be used to determine the necessary surface preparation to achieve good adhesion of the overcoat.

The underlying waterproofing system is at or near its predicted lifespan; replacement should be anticipated at some point in the future. If extensive repair were to be required, replacement might be considered. Should the top deck waterproofing system be completely removed and replaced in the future, that work should include correction of the top surface sloping to permit adequate drainage, correction of scupper details, and updated transition and flashing details at the deck perimeters.

4.2 Unit Decks Not Over Garages - Exposed Deck Framing.

The EEE inspections identified the unit decks with exposed framing to be in generally adequate structural condition, however limited conditions were noted throughout the inspected decks. In some cases, these are deteriorated conditions. In other cases, they are improper repairs. Repairs are recommended, as detailed in Table 3. These repairs will help to maintain the decks in a safe manner for the immediate future.

While not addressed in the table below, we also noted widespread deterioration of the wood decking and wood siding/shingles at many of the buildings. The deterioration noted was not structurally significant but does indicate potential future deterioration of the exposed wood framing and/or exterior building finishes. A maintenance program for the exposed decks should be developed that includes regular replacement and repair to wood decking and exterior building finishes.

Table 3. Repair Recommendations for Unit Decks Not Over Garages – Exposed Framing

Item	Description & Location	Repair Priority
R7	Deck Joists: Repair decay damaged deck joists at unit decks. Building/Unit Number: 10/1012, 12/1060, 17/1176, 17/1178, 20/102, 22/101, 22/105, 22/107, 26/945.	Very High
R8	Guardrails: Repair deterioration in guardrail top rails, trim, expose and repair framing for out of plumb or loose guardrail components. Building/Unit Number: 1/809, 3/834, 3/836, 17/1174, 28/1013, 29/1029.	High

4.3 Unit Decks Over Garages.

The EEE inspections identified systematic issues that require repair. Table 4 provides a summary of repair recommendations.

Many of the units were identified to have active water intrusion. It is suspected that the primary sources of the water intrusion are the interface between the deck floor and the perimeter guardrail wall, and the scuppers that occur in the perimeter walls. While the waterproofing was found to not be performing as intended, the structural framing was found to generally be in good condition, with only limited occurrences of decay damage or other deterioration. It is important, however, to repair the waterproofing system so that structural decay damage does not become a problem in the future.

Removal and replacement of the waterproofing system is recommended. As part of this effort, we recommend that a design professional be hired to develop specifications and plans for the repairs,

including details of the interface of the waterproofing system with the walls, sliding glass doors, etc., and design of the scupper and downspout systems. Additional important steps include having design professional oversight during the course of construction and an installer that has been trained and approved by the waterproofing manufacturer.

We suggest that a high priority be assigned to the units currently known to have ongoing water intrusion problems. WJE has listed below the units that we are aware of and we recommend surveying homeowners to see if there might be knowledge of additional units with intrusion. After completion of the units with active water intrusion, we suggest that the waterproofing for the balance of the decks above garages be performed.

During the course of waterproofing replacement, it should be assumed that some decay damaged wall, guardrail, and deck joist framing will be found and will require replacement in kind. Based on information currently available, we believe this should be of limited extent.

Table 4. Repair Recommendations for Unit Decks Over Garages

Item	Description & Location	Repair Priority
R9	Waterproofing: Replace existing deck waterproofing with new properly detailed waterproofing in units with known water intrusion. Building/Unit Number: 1/803, 1/813, 2/822, 3/842, 4/870, 10/1022, 15/1124, 15/1128, 15/1146, 16/1170, 19/1157, 19/1175, 22/105, 24/1229, 25/911, 25/933, 29/1025, 29/1027, 30/1123, 31/1147.	High
R10	Waterproofing: Replace waterproofing with new properly detailed waterproofing in balance of units. Building/Unit Number: All decks over garages not included in R9.	Medium
R11	Guardrails: Repair deterioration in guardrail top rails, expose and repair framing for leaning sections of guardrail. Note that extent of required repair is anticipated to increase as repairs to deck waterproofing systems are implemented. Building/Unit Number: 1/801, 5/872, 7/912, 8/958, 10/1000, 10/1022, 13/1072, 7/1174, 25/911, 25/933, 28/1023.	High
R12	Other Framing: Repair framing decay damage as encountered in waterproofing replacement work. Note that extent of required repair is anticipated to increase as repairs to deck waterproofing systems are implemented. Building/Unit Number: The following were observed to have local decay damage to wall framing and sheathing and should be repaired over the course of waterproofing replacement: 3/842, 15/1146.	Medium

4.4 Entry Stairs and Second Floor Landings - Street-Side Buildings

The EEE inspections identified the entry stairs to be in generally good condition with limited repairs recommended as indicated in Table 5. The EEE inspections identified more widespread issues with the entry stair landing waterproofing and water management systems, based on water intrusion observed in the electrical room below.

Table 5. Repair Recommendations for Entry Stairs and Second Floor Landings – Street-Side Buildings

Item	Description & Location	Repair Priority
R13	Entry deck waterproofing system: Remove existing entry deck waterproofing systems and replace with new systems better designed for deck drainage or investigate to identify more targeted repairs. Note that repairs to framing and sheathing are likely to be identified in the course of waterproofing system repairs. Building/Unit Number: 10/1022, 11/1024, 12/1048, 13/1094, 14/1122, 15/1142, 15/1146, 19/1157, 19/1179, 25/933, 26/957, 30/1123, 31/1149.	Very High
R14	Entry deck waterproofing system: Depending on conditions identified during implementation of the repairs noted above, it may be appropriate to replace waterproofing systems on the balance of the entry decks.	Medium
R15	Electrical Rooms: Remove and replace water-damaged gypboard on walls and ceilings. Note that repairs to framing and sheathing are likely to be identified in the course of electrical room repairs. Building/Unit Number: 10/1022, 11/1024, 12/1048, 13/1094, 14/1122, 15/1142, 15/1146, 19/1157, 19/1179, 25/933, 26/957, 30/1123, 31/1149.	Very High
R16	Stair stringer: Repair decay damage at stringer end. Details for stair stringer end connection should be improved to improve performance of repair. Building/ Unit Number: 12/1048.	High
R17	Stair Stringer Cladding: Repair cladding. Building/ Unit Number: 23/ 1223, 25/933, 30/1123, 31/1129, 31/1147.	High
R18	Guardrails: Repair deterioration in guardrail top rails. Building/Unit Number: 11/1024, 11/1046, 21/113.	High

4.5 Entry Stairs and Second Floor Landings - Back-Side Buildings

The EEE inspections identified the entry stairs and landings to have a number of ongoing issues. These include widespread decay damage in weather-exposed stringers, water intrusion and decay damage into the stair landing/ ceiling soffits, decay damage to posts, and some damage to guardrails. Because of the weather exposure we would anticipate that additional damage would be identified during the repair of these items. Repair recommendations are detailed in Table 6.

Table 6. Repair Recommendations for Entry Stairs and Second Floor Landings – Back-Side Buildings

Item	Description & Location	Repair Priority
R19	Stair Stringers: Repair exposed stair stringers with decay damage. Building/ Unit Number: 2/816, 4/854, 7/918, 7/928, 8/952, 11/1040, 13/1078, 13/1080, 14/1116, 15/1130, 16/1154, 16/1164, 19/1163, 19/1173, 21/115, 25/927, 26/941, 28/1017, 31/1141.	Very High
R20	Entry deck waterproofing system: Remove existing entry deck waterproofing systems and replace with new systems better designed for deck drainage or investigate to identify more targeted repairs. Note that repairs to framing and sheathing are likely to be identified in the course of waterproofing system repairs Building/ Unit: All	Medium
R21	Entry Deck: Repair decay damaged entry deck framing and sheathing. Building /Unit: 28/1007.	High

Item	Description & Location	Repair Priority
R22	Entry Deck: Pull decay-damaged soffit, survey for damaged deck framing and sheathing and repair as required. Building/ Unit: 15/1130.	High
R23	Posts: Repair exposed deck posts with decay damage at the top or bottom. Building/ Unit Number: 4/864, 5/876, 9/976, 10/1006, 11/1040, 13/1078, 14/1116, 25/917, 31/1141.	Medium
R24	Guardrails: Repair deterioration in guardrail. Building/ Unit Number: 2/816, 12/1054.	High

5.0 LIMITATIONS

The work performed by WJE is limited to the scope noted in this report, as per the scope of services in WJE's proposal dated June 17, 2022.

Services performed by WJE did not include evaluating the conformance of the original construction to applicable building codes, either through performance of calculations or through code evaluation of as-built construction.

Glass in guardrails is required by the building code (both at the time of construction and currently) to meet defined safety regulations. WJE did not evaluate conformance of the glass currently used in the guardrails to applicable code requirements. If glass were to be replaced, applicable safety requirements would need to be determined.

During the course of inspections, biological growth was observed at a number of locations, both interior and exterior. Services performed by WJE did not include evaluation of health implications of this biological growth. If information is needed, we recommend that an industrial hygienist be engaged to provide guidance.

6.0 EXPECTED FUTURE PERFORMANCE AND REMAINING USEFUL LIFE

Weather-protected Framing

Systematic water intrusion is currently occurring at the decks over garages and at entry stair landings. Provided that repairs are implemented, and a robust maintenance program is provided, the weather protected EEEs should continue to perform in a structurally adequate manner for the foreseeable future. It is noted that the maintenance has included in the past a moderate level of repair or reconstruction; this should be anticipated to continue.

Weather-exposed Framing

In addition to the repairs recommended in this report, the weather-exposed framing, including decks with exposed framing, exposed beams and posts at concealed decks, and entry stairs will continue to require ongoing inspections and periodic repairs as they have in the past. We do not know what measures are in place now but recommend inspection of these every one to two years, instead of the nine year interval permitted by SB326.

Waterproofing Systems

WJE recommendations include replacement or other repair of waterproofing systems in a number of locations. For existing waterproofing systems that remain, our thoughts on future performance follow.

The originally installed exposed waterproofing relies on periodic overcoating for continued function. Continued periodic installation of overcoating by qualified installers should maintain the existing system for the immediate future. The original waterproofing is now in the range of its anticipated life span, so it should be anticipated that at some point in the future full replacement of the waterproofing system will be required. The same is true of the flashing systems.

For the originally installed waterproofing system below the concrete topping slab, the system type and condition is not known so it is difficult to speak to future performance. In a number of instances, the water intrusion has been identified to occur below these waterproofing systems. We recommend that during repair a waterproofing expert review the exposed waterproofing to determine the type and condition and provide information about future performance.

7.0 CONCLUSION

As required by SB326, WJE inspected EEEs at Harbortown. Based on our inspections WJE has provided a number of recommendations for repair. The limited locations for which we identified the need for shoring or emergency repair were already repaired by December 2022 when WJE completed on-site inspections.

We would be happy to further discuss the information in this report and next steps.

Sincerely,

WISS, JANNEY, ELSTNER ASSOCIATES, INC.

Kelly Cobeen, S.E. 3362
Principal and Project Manager

Kari Klaboe, S.E. 6393
Senior Associate

FIGURES

Figure 1. Harbortown townhouse-type building.

Figure 2. Harbortown condominium-type building.

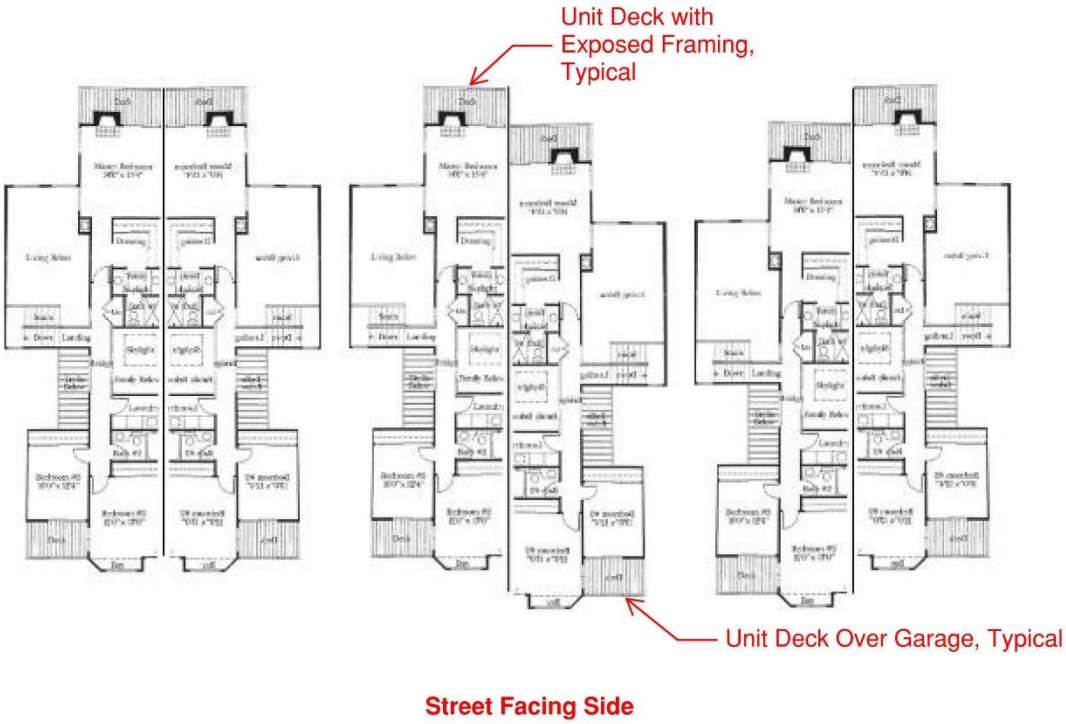

Figure 3. Townhouse-type building and typical EEEs.

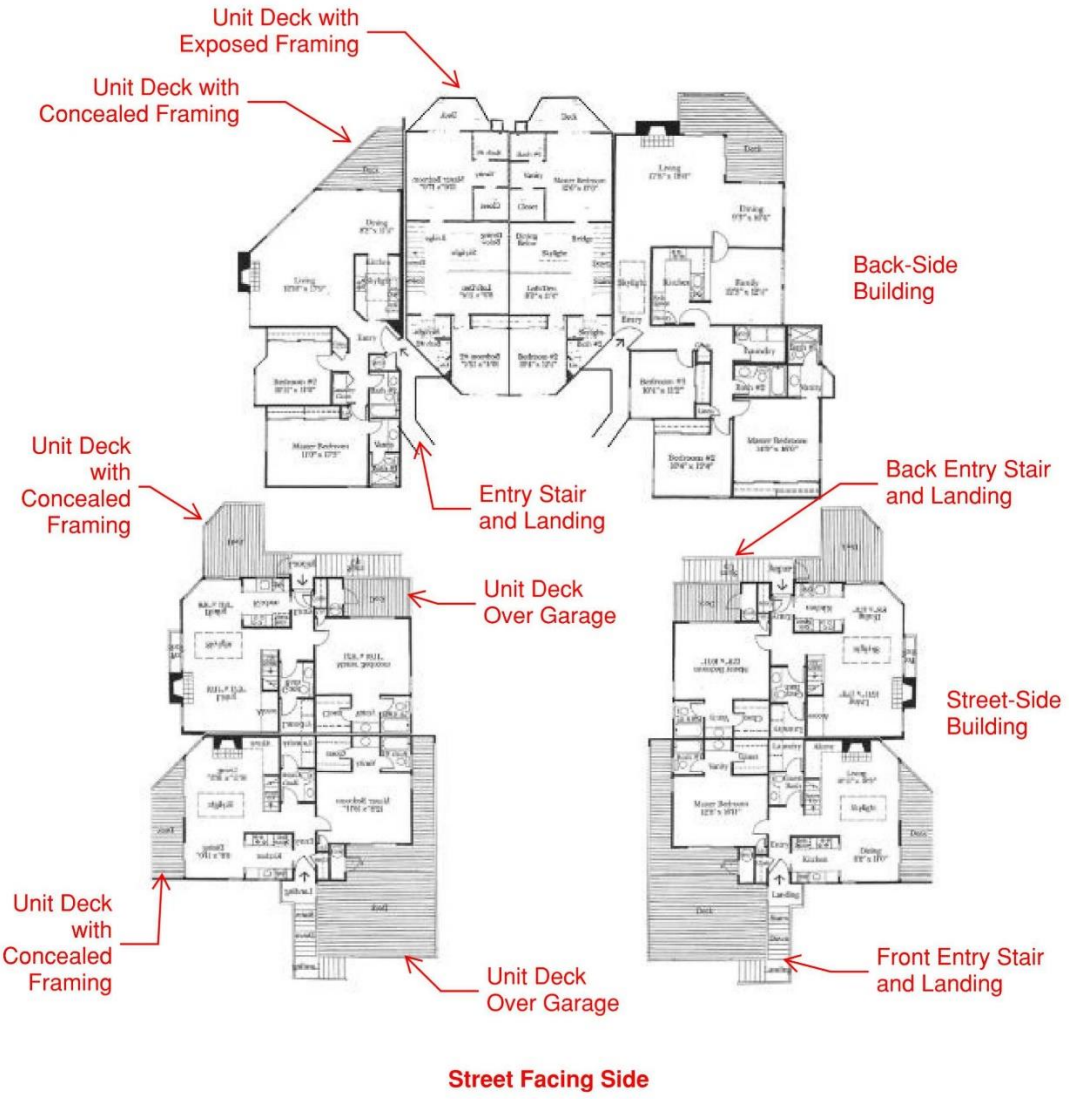

Figure 4. Condominium-type building and typical EEEs.

Figure 5. Unit deck not over garage with concealed framing.

Figure 6. Unit deck not over garage with exposed framing.

Figure 7. Unit deck over garage.

Figure 8. Entry stairs and deck at condominium-type street-side building.

Figure 9. Entry stairs and deck at condominium-type street-side building.

Figure 10. Entry stairs and deck at condominium-type back-side building.

Figure 11. Inspection openings at unit deck not over garage with concealed framing.

Figure 12. Inspection opening in garage ceiling.


Figure 13. Under-stair garbage and recycle can area.

Figure 14. Inspection opening in ceiling of garbage and recycle area, showing moderate water staining.

Figure 15. Inspection openings in ceiling of electrical room.

Figure 16. Inspection openings in entry deck ceiling soffits.

Figure 17. Unit deck with concealed framing.

Figure 18. Unit deck with concealed framing.

Figure 19. Distress to overcoating on exposed waterproofing.

Figure 20. Distress to overcoating on exposed waterproofing.

Figure 21. Cracking in upturned edge of exposed waterproofing.

Figure 22. Growth on topping slab.

Figure 23. Ponding water at drain location.

Figure 24. Scupper with reverse slope.

Figure 25. Downspout to roof than drains onto second floor deck.

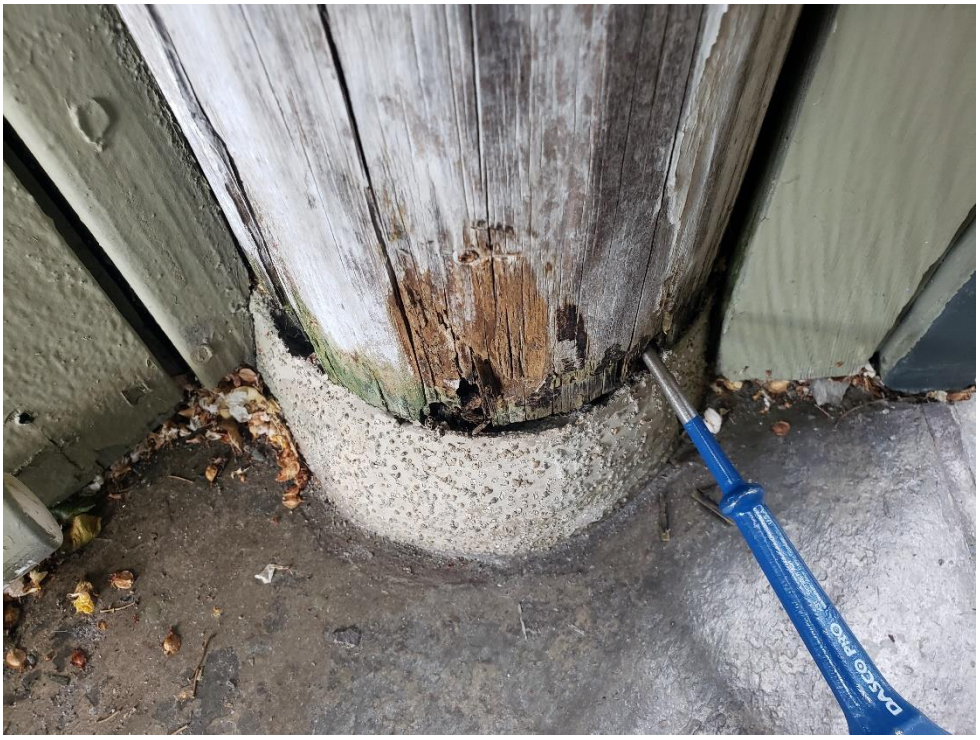

Figure 26. Decay damage at bottom of log post.


Figure 27. Decay damage in end of beam at 1088 Shoreline (building 13).

Figure 28. Decay damage in guardrail top rail.


Figure 29. Decay damage in other guardrail framing.

Figure 30. Leaning deck guardrail at 1130 Shoreline (Building 15).

Figure 31. Water intrusion at local decay damage at 941 Shoreline (Building 26).

Figure 32. Hump in exposed waterproofing at 816 Wharfside (Building 2).

Figure 33. Deck with exposed framing.

Figure 34. Deck with exposed framing.

Figure 35. Exposed deck typical framing.

Figure 36. Localized wood decay at top of exposed joist.

Figure 37. Significant wood decay at exposed deck joist.

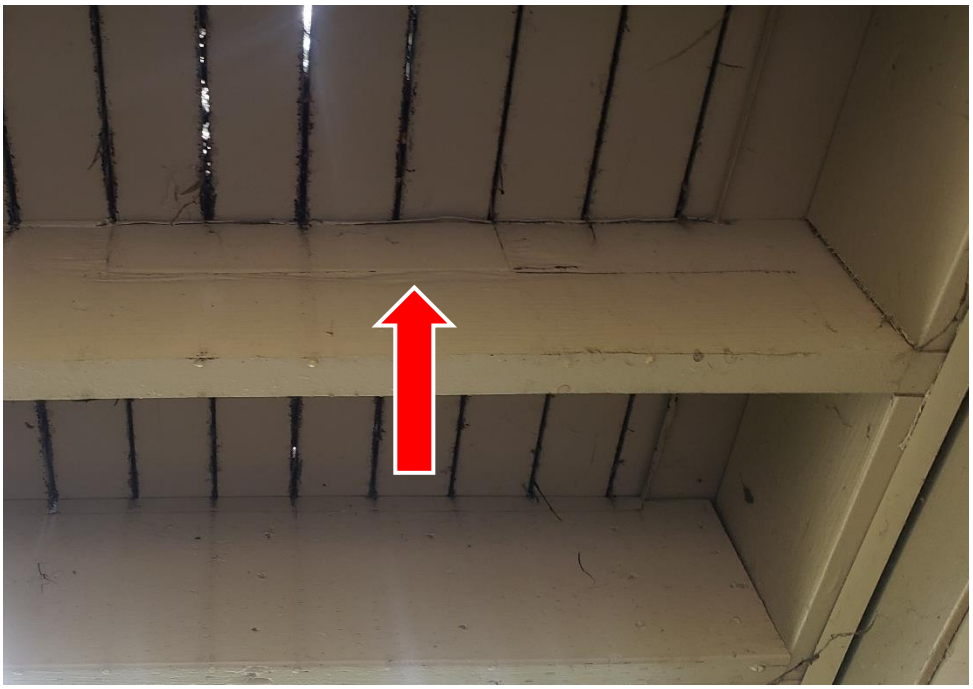

Figure 38. Inappropriate deck joist repair that compromises deck strength. Joist has been cut out and patched back in.

Figure 39. Inappropriate deck repair where joists have been cut back and then sistered.

Figure 40. Deteriorated deck boards with nail popping.

Figure 41. Bio growth on deck boards.

Figure 42. Decay damage to guardrail top rail.

Figure 43. Unit deck above garage with concrete topping slab.

Figure 44. Unit deck above garage with exposed waterproofing.

Figure 45. Bubbling and peeling of exposed waterproofing.

Figure 46. Peeling and cracking of exposed waterproofing at upturned edge.

Figure 47. Bio growth on exposed topping slab.

Figure 48. Bio growth on garage ceiling at active leak.

Figure 49. Garage walls and ceiling with water staining on both older and newer gypboard.

Figure 50. Decay damage to guardrail top rail.

Figure 51. Guardrail that is more flexible that typical.

Figure 52. Street-side building stair with cladding on stair stringer and below treads.

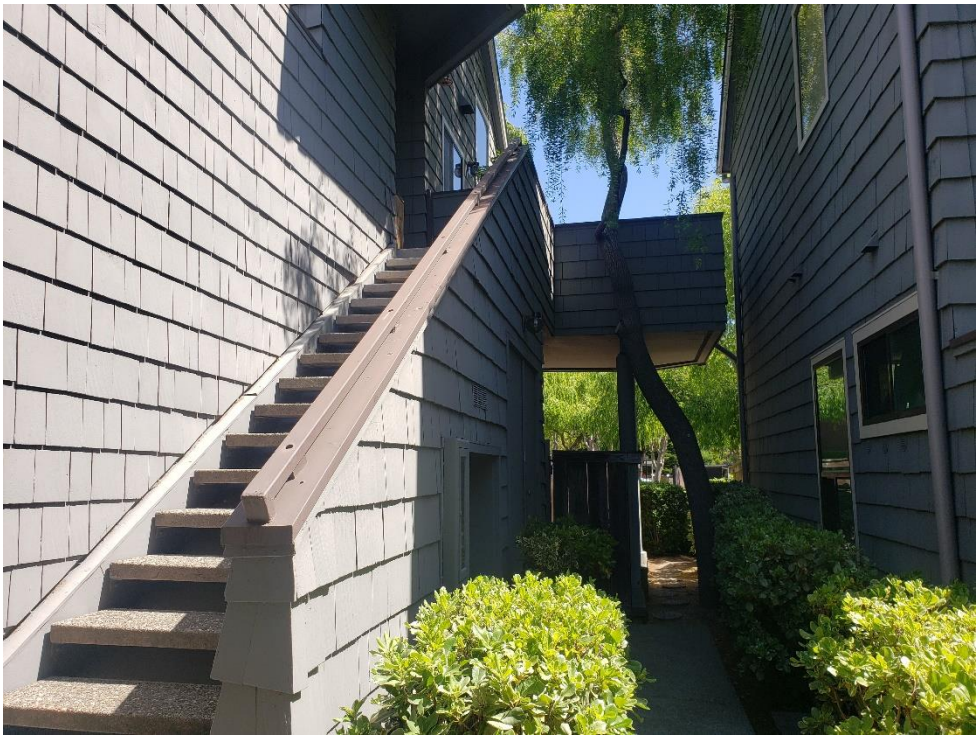

Figure 53. Back stair at street-side building.

Figure 54. Stringer cladding out of position, allowing water intrusion.

Figure 55. Entry stairs at back-side building.

Figure 56. Stair stringer covered with sheet metal cladding.

Figure 57. Entry deck soffit with decay damage.

Figure 58. Decay damage pocket at exposed stair stringer.

Figure 59. Decay damage at stringer support connection.

Figure 60. Base of entry stair with tall stair riser and gap between lowest riser and surrounding flatwork.

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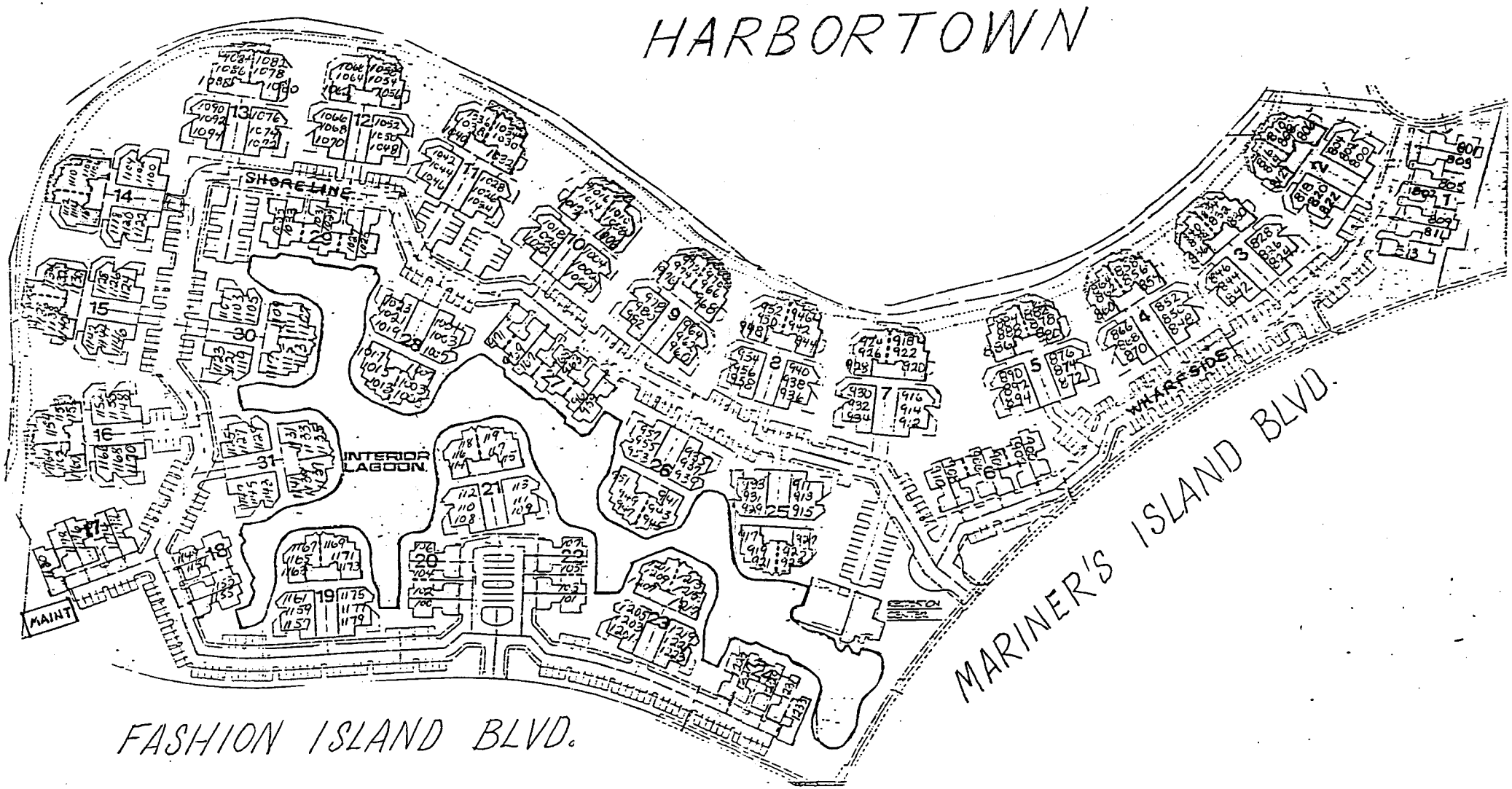
APPENDIX A – HARBORTOWN PLAN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APPENDIX B – UNITS NOT ACCESSED FOR VISUAL INSPECTIONS

Harbortown SB326 Inspections
Units Not Accessed
WJE - October 12, 2022

Building	Unit	Address	Access Needed			Did resident refuse access to unit?	Notes
			Deck Above Garage	Garage	Rear or Side Deck		
1	805	805 Wharfside Road	Yes	Yes	Yes		Exterior photos taken of rear deck.
1	807	807 Wharfside Road	Yes	Yes	Yes		Exterior photos taken of rear deck.
1	811	811 Wharfside Road	Yes	Yes	Yes		Exterior photos taken of rear deck.
2	800	800 Wharfside Road	Yes	Yes	Yes		
2	806	806 Wharfside Road	-	Yes	Yes		
2	818	818 Wharfside Road	Yes	Yes	-		Deck off of entry stair accessed.
2	822	822 Wharfside Road	-	-	Yes	Yes (health concern)	Deck off of entry stair accessed.
3	842	842 Wharfside Road	Yes	Yes	-		Deck off of entry stair accessed.
4	848	848 Wharfside Road	Yes	Yes	Yes		
6	900	900 Wharfside Road	Yes	Yes	Yes		Exterior photos taken of rear deck.
6	902	902 Wharfside Road	Yes	Yes	Yes		Exterior photos taken of rear deck.
8	936	936 Shoreline Drive	Yes	Yes	Yes		
9	960	960 Shoreline Drive	Yes	Yes	Yes		
9	976	976 Shoreline Drive	-	Yes	Yes		
9	982	982 Shoreline Drive	-	Yes	Yes		Deck off of entry stair accessed.
10	1000	1000 Shoreline Drive	-	Yes	Yes		Deck off of entry stair accessed.
10	1016	1016 Shoreline Drive	-	Yes	Yes		
10	1018	1018 Shoreline Drive	Yes	-	-	Yes (health concern)	Deck off of entry stair accessed.
11	1024	1024 Shoreline Drive	Yes	Yes	Yes	See Note	Unit is for sale and does not appear to be occupied.
11	1046	1046 Shoreline Drive	Yes	Yes	Yes		
12	1048	1048 Shoreline Drive	Yes	Yes	Yes		
13	1072	1072 Shoreline Drive	-	Yes	Yes		Deck off of entry stair accessed.
13	1076	1076 Shoreline Drive	Yes	Yes	-		Deck off of entry stair accessed.
13	1078	1078 Shoreline Drive	-	Yes	Yes		
14	1104	1104 Shoreline Drive	Yes	Yes	-	Yes	Deck off of entry stair accessed.
14	1122	1122 Shoreline Drive	-	Yes	Yes		Deck off of entry stair accessed.
16	1154	1154 Shoreline Drive	-	Yes	Yes		
16	1170	1170 Shoreline Drive	-	-	Yes	Yes (health concern)	Deck off of entry stair accessed.
17	1176	1176 Shoreline Drive	Yes	Yes	Yes		Exterior photos taken of rear deck.
19	1163	1163 Shoreline Drive	-	Yes	Yes		
20	104	1153 Harbor Seal Court	Yes	Yes	Yes		Exterior photos taken of rear deck.
20	106	1155 Harbor Seal Court	Yes	Yes	Yes		Exterior photos taken of rear deck.
21	108	108 Harbor Seal Court	Yes	Yes	Yes		
21	112	112 Harbor Seal Court	Yes	Yes	-		Deck off of entry stair accessed.
21	115	115 Harbor Seal Court	-	Yes	Yes		
21	109	109 Harbor Seal Court	Yes	Yes	Yes		
22	101	101 Harbor Seal Court	Yes	Yes	Yes		Exterior photos taken of rear deck.
22	103	103 Harbor Seal Court	Yes	Yes	Yes		Exterior photos taken of rear deck.
23	1219	1219 Shoreline Drive	Yes	Yes	-		Deck off of entry stair accessed.
24	1225	1225 Shoreline Drive	Yes	Yes	Yes	Yes	Exterior photos taken of rear deck.
24	1233	1233 Shoreline Drive	Yes	Yes	Yes		Exterior photos taken of rear deck.
25	927	927 Shoreline Drive	-	Yes	Yes		
26	935	935 Shoreline Drive	Yes	Yes	Yes		
26	939	939 Shoreline Drive	Yes	Yes	-		Deck off of entry stair accessed.
26	951	951 Shoreline Drive	-	Yes	Yes		
26	953	953 Shoreline Drive	Yes	Yes	-		Deck off of entry stair accessed.
26	957	957 Shoreline Drive	Yes	Yes	Yes		
27	959	959 Shoreline Drive	Yes	Yes	Yes		Exterior photos taken of rear deck.
27	963	963 Shoreline Drive	Yes	Yes	Yes		Exterior photos taken of rear deck.
27	965	965 Shoreline Drive	Yes	Yes	Yes		Exterior photos taken of rear deck.
27	971	971 Shoreline Drive	Yes	Yes	Yes	Yes	Exterior photos taken of rear deck.
28	1005	1005 Shoreline Drive	Yes	Yes	-		Deck off of entry stair accessed.
28	1017	1017 Shoreline Drive	-	Yes	Yes		
29	1031	1031 Shoreline Drive	Yes	Yes	Yes		
29	1033	1033 Shoreline Drive	Yes	Yes	Yes		
30	1101	1101 Shoreline Drive	Yes	Yes	Yes		
30	1107	1107 Shoreline Drive	-	Yes	Yes		
31	1141	1141 Shoreline Drive	-	Yes	Yes		
31	1143	1143 Shoreline Drive	Yes	Yes	-		Deck off of entry stair accessed.
Total	**59**						

Wiss, Janney, Elstner Associates, Inc.
2000 Powell Street, Suite 1650
Emeryville, California 94608
510.428.2907 tel
www.wje.com

APPENDIX C – STAIR SHORING MEMO

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MEMORANDUM | October 25, 2022

Harbortown SB326 Inspections

Recommended Stair Shoring

WJE PROJECT NO. 2022.3823

TO Harbortown HOA
c/o Ms. Nichole Dillon-Lee
Manor

FROM Kelly Cobeen, Kari Klaboe

On September 29, 2022, as part of visual inspection of decks and entry stairs being conducted by WJE, we identified four entry stair stringers with significant decay damage for which we recommended emergency shoring be performed. Based on emails and phone discussions we understood that a contractor was going to proceed with shoring and repair of the stairs. While on site on October 24, 2022 for follow-up deck inspections, we visited the four stairs to confirm that shoring had been placed. Our observations were:

- Building 26 - 941 Shoreline: Shoring was in place and appears to provide adequate support.
- Building 11 – 1030 Shoreline: It appeared that the contractor had just started shoring, with blocks added supporting the stair treads, but no studs added to support the damaged stringer.
- Building 28- 1007 Shoreline: No shoring was present.
- Building 31 – 1141 Shoreline: No shoring was present.

In all cases the damage occurs to the outboard stair stringer that is away from the wall, not the stringer that runs alongside the wall.

As was communicated in our September 29 email, we recommend emergency temporary shoring of these stair stringers as soon as possible. Attached to this email are some annotated photos to clarify the type and location of damage that is prompting us to recommend shoring. We would be happy to discuss the damage and reasons for shoring if that would be of help.

Harbortown - 941 Shoreline Stair Repair (Building 26)

Significant decay damage and splitting of stringer at support. This stringer was observed to be shored on 10-24-2022.

Harbortown - 1007 Shoreline Stair Repair (Building 28)

Significant decay damage and splitting of stringer at top and bottom supports. This stringer has not been shored 10-24-2022.

Harbortown - 1030 Shoreline Stair Repair (Building 11)

Significant decay damage to stringer at top and bottom supports. This stringer has incomplete shoring 10-24-2022.

Harbortown - 1141 Shoreline Stair Repair (Building 31)

Significant decay damage to stringer at top support. This stringer has not been shored 10-24-2022.