



"The Home Inspection Professionals"®

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Thursday, April 24, 2008

Jason & Elissa Girdali  
22 Helenaston Drive  
Scarsdale, NY 10583

Subject Property: 22 Helenaston Drive, Scarsdale, NY

Dear Mr. & Mrs. Girdali:

As requested, on Tuesday, April 22, 2008, I performed a limited time/limited scope inspection of the Subject Property for deck structural integrity, low retaining wall under and behind the deck and wooden steps in rear yard. For the purpose of this report, the building faces south, and the deck is at the rear of the structure.

#### Deck

The overall dimensions of the deck are 13'-06" (l) x 27'-00" (w), and it is 8'-00" above grade. The main girder is fabricated from (2) 2" x 10" framing lumber face nailed together. The girder is supported by five (5) 4" x 4" wooden post columns that rest on five (5) 10" diameter concrete footings. The depth of footings was not determined; the footings extend above the grade approximately by 8" to 10". The column spacing is not uniform and varies between 5'-09" and 6'-08". The girder, columns and footings are in satisfactory condition.

There is a 2" x 10" ledger board attached to the main structure, which is lagged screwed to the building framing. Spacing of lag screws is not uniform, varying between 16" and 48" o.c. The ledger board is in satisfactory condition.

The joists are 2" x 10" boards spaced sixteen inches on center (16" o.c.) and span 11'-10" with a 1'-08" cantilever. The joists are nailed into the ledger at the main structure. The joists are in satisfactory condition, but the attachment to the ledger board by toenailing without joist hangers is an unsatisfactory condition.

The decking boards are 2" X 6" framing lumber. Most of the boards are old, warped, split, shrunken and worn.

The deck railings are 42” high with 1” x 1” spindles. The spacing between the railing spindles is not uniform, varying between 4-3/4” and 5-1/2”. The railing top boards are old, split and worn. The railing posts are nailed into the rim joists and are loose and will probably not be able to hold a 200 lb. lateral load as required by code. The railing is in unsatisfactory condition.

There are wooden stairs from the deck to grade. The stairs consist of seven (7) risers, which are not uniform in height. Riser heights vary between 3” and 7-1/4”. From bottom to top, riser heights are 3”, 6-1/2”, 7”, 7”, 6-3/4”, 7-1/4”, and 7-1/4”. The stair stringers have pulled away from the deck at the top approximately 1/2”. The stair treads are old, split, worn and loose. The stairs are in poor condition.

The structural members, including the floor joists, main girder, columns and footings are in overall satisfactory structural condition. It is recommended to remove the decking material, railings and stairs. Install additional lag bolts at the ledger with a pattern whereas the spacing between the bolts does not exceed 3'-00”. Install joist hangers at the ledger board and at the rim joists. Apply a preservative treatment to all of the structural members. Install new decking material and railings. Use pressure treated lumber or similar weather resistant lumber for the decking material or consider using engineered products such as Trex or Timbertech. Railings must be a minimum height of 3'-00” and spindle spacing such that a 4” sphere cannot pass through. Replace the stairs to the deck with stairs that have uniform risers and conform to the requirements of the NYS Residential Code; maximum riser height is 8-1/4”.

Cost to Cure: Deck

Removal of finish materials	\$600	to	\$800
Add lag screws and joist hangers	\$600	to	\$800
Preservative treatment	\$300	to	\$400
New decking	\$1,200	to	\$2,000
New railings	\$600	to	\$1,000
New stairs	\$800	to	\$1,200
	<u>\$4,100</u>	to	<u>\$6,200</u>

Add on for Timbertech or Trex: \$300 to \$600.

Retaining Wall

There is a 2'-02” high by 27'-00” long retaining wall below the deck, around part of the perimeter of the deck, on the east, north and part of the west sides erected with 6” x 6” wooden timbers. The north side of the wall is located 4'-00” north of the column line of the deck. The grade slopes away from the main structure under the deck. The wall has no visible weep holes or drain pipes. The middle section of the wall is leaning out approximately 2” at the top. There is a downspout extension pipe on the west side of the main structure that terminates above and short of the edge of the retaining wall. The wooden timbers are old and split but in overall satisfactory condition with no exaggerated deterioration visible.

Straighten the middle section of the wall back to perpendicular. Raise the height of the wall approximately 10". Install weep holes or drain pipes through the wall at a maximum spacing of 10'-00" o.c., and provide proper drainage provisions behind the wall. Consider installing a perforated drain pipe covered with pervious stone, behind the wall to collect and discharge water. Extend the downspout pipe to discharge rainwater beyond the north side of the wall. Apply a preservative coating to the wooden timbers. Consider cladding the wooden timber retaining wall with a decorative masonry (brick, stone, paving blocks) or apply latticework to provide a base for decorative vegetation such as ivy., including weep holes and drain pipe. Cost to Cure: \$1600 to \$3600. Add on for masonry: \$2600 to \$3600.

#### Stairs to back yard

There are wooden stairs from the rear edge of the driveway to the back yard, at the west corner of the deck. The stringers are old, worn, split and deteriorated. The treads are old, worn, loose, split and deteriorated. There are fourteen (14) risers that are not uniform in height. From bottom to top the riser heights are 9", 5-7/8", 7", 6", 5-7/8", 6", 5-3/4", 5-7/8", 5-3/4", 5-1/8", 4-1/2", 5-1/4", 5-3/8", and 4". There are no railings for the stairs. The overall condition of these stairs is unsatisfactory/poor.

Remove and replace the entire stairs with stairs that conform to the NYS Residential Code including railings. Cost to Remove & Replace: \$1800 to \$2200. Add on for masonry: \$1600 to \$2000.

If you have any further questions, please contact me directly at the number listed herein.

Sincerely,



Lawrence D. Danner, P.E.  
License #056456

