Deck Evaluation Checklist

Date:_______________________________
Reported By:________________________________________
Project Name/Client: __________________________
Year Deck was Built:________________________________

I. Stairs

A. Not Applicable □

B. Are there any visible signs of cracks, decay or over-notching? □ No □ Yes

1. If yes, where?________________________________________________________

C. Stairway width:____________________ (Hint: Residential deck stairway width shall not be < 36")
D. Riser Height:____________________ E. Tread Depth:____________________

Hint: The greatest riser height or tread depth within a flight of stairs shall not exceed ⅜"

1. Is something restricting the passage of a 4" sphere between the treads? □ Yes □ No

F. Are there guards and/or handrails on the stairway? □ Yes □ No

1. Is the handrail height 34"-38"? □ Yes □ No

2. Is the handrail graspable? □ Yes □ No

3. Is the opening between the balusters less than 4½"? □ No □ Yes

4. If a separate handrail, does the handrail return to a post or safety terminal? □ Yes □ No

5. Is there a method to safely support the required load applied in any direction and the limited deflection on the guardrail? □ Yes □ No If no, needs attention

Describe: (e.g.; hardware, post connected to the footings and stringer, etc.)

G. Stringer: □ Solid □ Notched

Hint: Solid stringers are permitted to have a total run of 13 ¼' between landings.
Based on AWC DCA6-12, notched stringers are limited to 6' between supports.

1. Span between stringers?__________

2. Total rise of the stairs?__________ Total run of the stairs?__________

Hint: Stairs are permitted to have a total vertical rise of 12' between landings.

3. What is supporting/connecting the stringer to the deck?

Hint: If “Other” is checked, evaluation by a design professional is recommended as the connection detail from stair stringers to the deck structure is a critical structural connection.

□ Hardware □ Nails, only □ Other

□ Hardware (stringer flush) □ Blocking

4. If the stringers are notched, does the triangular opening formed by the riser, tread & bottom rail of the guard permit the passage of a 6" sphere? □ No □ Yes

H. Is there a means of artificial illumination for the stairs? □ Yes □ No

I. Are there any visible signs of red rust on the hardware (fasteners or connectors)? □ No □ Yes

If yes, where?________________________________________________________

J. If connectors are used, are all the holes filled? □ Yes □ No

If no, where?________________________________________________________
Deck Evaluation Checklist

II. Footings/Deck Support and Posts/Columns

A. Footing/Deck Support-type?  □  Unable to Determine  □  Pier, only  □  Pad or Spread
   □  No footing/Improper footing  □  Other (describe):__________________________
   1. Size:______________________  Hint: Must be at least a 12”x12” or equivalent.
   2. Depth/Thickness:________________________  □  Unable to Determine
   3. Is it at least 12” below undisturbed ground  □  Yes  □  No  □  Unable to determine

B. Post size?  □  4x4  □  6x6  □  8x8  □  Other (e.g. metal):__________________________

C. Post Height? ________________
   Hint: Maximum post height is determined by the tributary load the post will carry.
   See AWC DCA6 for 6x6 post height maximums (www.awc.org).

D. Any visible signs of decay, cracks or post corrosion (if metal)?  □  No  □  Yes:______________________
   Hint: Decay or corrosion may appear just below the surface to ground interface.
   Cracks and decay may appear at the corner of the top of a notched post.

E. What is connecting the post to the footing?
   □  Post base hardware  □  Unable to determine  □  Nothing
   Hint: Look for hardware that connects to the footing to help resist the deck from moving
   and has a 1” standoff base plate to help prevent decay at the post end.

F. What is connecting the post to the beam?
   □  Post cap hardware  □  Notched  □  Other:__________________________
   Hint: Notching a 4x4 post for a double 2x is not permitted.
   Notching a 6x6 post to let-in a triple 2x or a 6x is not permitted.
   1. Has a post-to-beam connector been bent or improperly modified?  □  No  □  Yes
      Hint: Bending steel in the field may cause fractures at the bend line.
      Fractured steel will not carry the load and must be replaced.
   2. Are the beams alongside the post?  □  No  □  Yes
      If yes, is the beam attached with a metal connector to provide bearing?  □  Yes  □  No
      Hint: The beams alongside the post attached by bolts, lag screws or nails are prohibited by
      AWC DCA 6 and does not provide proper bearing for the beam.

G. Is diagonal bracing provided on the posts and beams?  □  Yes  □  No
   Hint: Required by AWC DCA 6 at the corner posts that are greater than 2’ in height.
   1. If the deck is not attached to the building, what method is used for lateral support?
      Describe:__________________________

H. Are there any visible signs of red rust on the hardware (fasteners or connectors)?  □  No  □  Yes
   If yes, where?__________________________

I. If connectors are used, are all the holes filled with the proper fasteners?  □  Yes  □  No
   If no, where?__________________________
   Hint: Slotted, Phillips or Star (e.g. Torx) head screws are never appropriate for connectors.
A. Are multiple lumber members fastened together to act as a single unit?  □ Yes  □ No
   Spacing:_________________ Fastener type (nails, bolts, screws):___________________________
   Hint: If bolts are used, there should be washers between the bolt head and nuts and the wood. And, the drilled holes should be no larger than 1/16" over the size of the bolt.

B. Are all beam splices occurring over a support with at least 1½" of bearing?  □ Yes  □ No
   If no, describe location:__________________________________________________________ (Needs attention)

C. Are there connections where the joist bears on top of the beam?  □ Yes  □ No
   Type of connection:________________________________________________________________

D. Joist:   Size:______________________   Spacing:_________________  Span:_______________________

E. What is providing the minimum 1½" of bearing under the joists?
   □ Joist Hangers  □ Ledger strips  □ Nothing (Needs attention)
   Hint: Ledger strips must be nailed directly underneath the joist with 3 or 4 nails (depending on the standard), concentrically placed right under the joist.

1. Have any of the joist hangers been bent or modified?  □ No  □ Yes
   Hint: Bending steel in the field may cause fractures at the bend line.
   Fractured steel will not carry the load and must be replaced.

2. Does the hanger have "double-shear" fastening?  See Figure B.  □ Yes  □ No
   a. If the hanger has "double-shear" fastening, was the correct (full length) fastener used for the joist-to-header fastener?  See Figure "A" for incorrect nailing.
      □ Yes  □ No (Needs attention)
      Hint: Full length fastener = 0.148 x 3" or 0.162 x 3½" HDG or ring shank 316 stainless steel nail or equivalent "approved" structural screws

F. What is providing lateral support for the deck diaphragm?
   □ Lateral load hardware □ Freestanding deck (blocking, bracing, etc.)
   □ Nothing □ Unknown/Unable to Determine (Needs additional analysis)
   Hint: Nails in joist hangers and ledger strips are subject to withdraw from the lateral forces and do not perform well in withdraw. Therefore, the lateral forces must be addressed by some other means.

G. Are there any visible signs of red rust on the hardware (fasteners/connectors)?  □ No  □ Yes
   If yes, where?____________________________________________________________________

H. If connectors are used, are all the holes filled with the proper fasteners?  □ Yes  □ No
   If no, where?____________________________________________________________________
   Hint: Slotted, Phillips or Star (e.g. Torx) head screws are never appropriate for connectors.

I. Is there any decay or rot of the wood?  □ No  □ Cannot Determine  □ Yes
IV. Ledger

A. Not applicable: Free Standing Deck □

B. Not acceptable: Ledger attached to Stucco, Brick or Masonry veneer, or over Siding □

C. Ledger attached to;
   □ Unable to Determine
   
   a. Cannot gain access to the rim joist area due to attached ceiling (or other obstacles).
   b. Deck ledger is attached to structural sheathing only (typically 15/32” OSB of plywood covering a
      floor truss), to the web of an I-joist only, or to a cantilever.

Note: If a or b, it is not possible to evaluate the deck ledger connection. A design professional is
recommended to evaluate the deck ledger connection that is known to be critical to deck safety.

□ Wood Rim Joist - Type:___________________________________________________________
   Fastener type; □ Lag Screws □ Machine Bolts □ Other___________________________
   Fastener diameter:_________________________
   Fastener spacing:_____________ Staggered: □ Yes □ No

Hint: Nails, alone and carriage bolts are not acceptable. Check if seen → □

Hint: Washers are required under the head and nuts of all bolts.

□ Concrete

□ CMU (Concrete Masonry Unit-e.g. block) (Needs additional analysis)
   Fastener type; □ Unable to Determine □ Other___________________________
   Fastener diameter:_________________________
   Fastener spacing:_____________ Staggered: □ Yes □ No

Hint: Concrete and Masonry screws are not acceptable for permanent, exterior applications.

1. Are there any visible signs of red rust on the fasteners? □ No □ Yes
   If yes, where?___________________________________________________________

D. Are there any visible signs of red rust on the fasteners? □ No □ Yes
   If yes, describe:__________________________________________________________________

V. Deck Boards/Deck Surface

A. What type of decking? See below. Describe type and condition. □ Unable to Determine
   □ Wood:______________________________________________________________________
   □ Wood Plastic Composite/Encapsulated-brand:____________________________________
   □ PVC-brand:_________________________ □ Other-type:______________________________

B. Is there any visible sign of decay, deterioration or cracking? □ No □ Yes
   If yes, describe:________________________________________________________________

C. Fastener type? □ Nails________ □ Screws________ □ Hidden Fasteners
   1. If hidden fasteners are used, what lateral support has been provided?
      □ Cross Bracing □ Angled Bracing □ Blocking □ Other:________________________
   2. Are any nails or screws exposed? □ No □ Yes-explain_____________________________

D. Are there any visible signs of red rust on the fasteners? □ No □ Yes
   If yes, where?_______________________________________________________________
VI. Handrail Assemblies and Guards

Hint: A guard is required when the walking surface is more than 30 inches above grade. Measurement is taken up to 36” away from deck.

A. What is the guard height? □ 36” □ 42” □ Other: ________________________________

Hint: Must not be less than 36” for most residential and 42” for most commercial guards.

B. What is the connection between the top rail of the guard and the post?

□ Nails: __________   □ Screws: __________ □ Unable to Determine □ No Posts

Hint: Posts and proper fasteners are needed to transfer the load into the deck framing.

C. Is there a “shear” connection between the posts and the frame of the deck? □ Yes □ No

□ Bolts, only □ Lag Screws, only □ Holdown □ Other: ________________________________

Hint: Bolts or lag screws, only, failed to meet the load and deflection standards.

Hint: Notched posts failed to meet the load and deflection standards.

D. Is the opening between the balusters less than 4”? □ Yes □ No

E. Is there any visible sign of decay, deterioration or cracking? □ No □ Yes

F. Are there any visible signs of corrosion or rust in the hardware? □ No □ Yes

VII. Miscellaneous

Additional Comments: (e.g. Special Features (Hot Tub, Deck Lighting, etc.), Trim Appearance)