

# **KNOFF & ASSOCIATES, INC.**

*Emailed 11/28/16*  
**ROOFING CONSULTANTS**

November 28, 2016

Town of Palm Beach Public Works  
Mr. Brett Madison  
951 Old Okeechobee Road, Suite D  
West Palm Beach, FL 33401  
[bmadison@townofpalmbeach.com](mailto:bmadison@townofpalmbeach.com)

Re: 2016 Roof Condition Evaluation Report  
Bid #2016-27, Town of Palm Beach item #13  
Par 3 Golf Course Maintenance Bldg., 2345 S. Ocean Blvd.

Dear Mr. Madison,

Pursuant to Bid No2016-27 I visited the above site on Wednesday November 22, 2016 to perform a review of the roof specifically and roof areas from the ground. The purpose of this inspection was to evaluate the current condition of the existing roof system, to verify if repairs or replacement is needed.

My inspection was performed in a visual non-destructive manner and my report is supported with captioned photos, site evaluation form and roof plan showing general locations of deficient items found.

My report is as follows:

The building is a long one story structure with moderately sloped wood trusses, plywood decking, a #30/90 organic felt membrane underlayment and a white paint topped, 9" cement shingle tile, "nailed-on". A search of the town permit records, found no record, so the actual age is unknown.

My walk around the building at ground level found the seamless gutter system heavily damaged, at the southeast corner and west end of the north side. Both areas suffer from equipment impact damage.

Access to the roof immediately noted loose and sliding tile on all four of the sloped sides, with the worst areas being the long south side. Closer examination found the tile to be "nailed-on" using what I will guess was an electro-plated pneumatic type gun nail, which is now in various stages of sever rust to total failure.

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Additionally there appears to have been 4-5 areas of various size repairs, to the south and west sides, an indicator of a roof failure in process. Within these repairs I noted fractured membrane, with some minor deck wood decay, along the south side eave, towards the west end (photo 12).

My real concern here is the large quantity of loose tile, which can become airborne missiles in a high wind event, posing a "life safety" risk to persons and property.

### **Conclusion**

Given the present roof condition it is my opinion this roof needs to be replaced as soon as possible.

### **Recommendations:**

- 1) The new tile system should be a #30/SBS Hot Asphalt applied Modified membrane, with the tile set in a large Pad of Polyfoam adhesive, to provide the best wind resistance values available today.
- 2) The new gutters should stop short of the two overhead doors, then be supplemented by installing sloped water diverters over each door, to direct the water to the gutters. This will prevent future impact damage, in the concrete ramp areas.

This concludes my report, should you have any questions or concerns, please feel free to contact me.

Respectfully,



Leslie G. Knopf, CPRC

President 16-071

### **Enc:**

- |   |        |
|---|--------|
| 1) Google Earth Roof View                     | 1 pg.  |
| 2) Roof Maintenance Inspection Checklist Form | 3 pgs. |
| 3) Knopf Photos                               | 5 pgs. |



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## Roof Maintenance Inspection Checklist

General Roof Information		
Type of Roof: Flat <u>Sloped</u> <i>Par 3 Maintenance Bldg.</i>		
Today's Date: <u>11/22/16</u> Date Installed: _____ Date of Last Maintenance: _____		
Reason for Inspection: _____		
Name of Inspector/ Maintenance Personnel: <u>LES KNOPF</u>		
Roofing Material	Composition Concrete Engineered Environmentally Friendly Hot Mopped Metal Slate <u>Tile</u> Wood Shingles/Shakes Other: _____ _____ _____	
Physical, Visible Damage/ Structural Deformation	<u>WOOD DECAY, LOOSE SLIDING TILES MULTIPLE REPAIRS.</u>	
Dirt, Rocks, Branches, Other Debris on Roof		
Water Damage, Drainage, Gutter Problems	<u>YES</u>	
Additional Notes/ Roof Damage	_____ _____	
For Flat Roofs	Action: Repair/Replace	Comments/Notes
Roof Surface: Good, Fair, Poor		
Coating: Good, Fair, Poor	<u>N/A</u>	
Deformations: Holes, Punctures, Cracks, Active Leaks, Visible Weathering		
Other Notable Problems	_____	

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<b>For Sloped Roofs</b>	<b>Action: Repair/Replace</b>	<b>Comments/Notes</b>
Roof Surface: Good, Fair, <u>Poor</u>	<u>REPLACE</u>	
Asphalt Shingle/Tile/Shake, Slate: Missing/Curled/Bent/Worn/ Cracked		
Metal Roofs: Bent, Worn, Rusted, Corroded, Missing Panels/ <u>Fasteners</u>	<u>RUSTING</u>	
Other Notable Problems	<hr/> <hr/> <hr/> <hr/>	

Exterior Roofing			
Structural Component	Condition: Good, Fair, Poor	Repair/Replace	Comments/Notes
Chimneys			
Decking			<u>SOME DECAY</u>
Dormers			
Drip Edges			<u>DAMAGED, MISSING</u>
Fascia			<u>DECAYED</u>
Gutters and Downspouts			<u>DAMAGED</u>
Hips			
Ridges			
Sheathing			
Skylights			

Soffit			
Starter Strips			
Underlayment			
Valleys			
Vents			
Other Components			
<b>Interior Roofing</b>			
<b>Structural Component</b>	<b>Condition: Good, Fair, Poor</b>	<b>Repair/Replace</b>	<b>Comments/Notes</b>
Ceiling Tiles			
Drywall			
Evidence of Leaks/Staining			
Insulation			
Rafters			
Roof Trusses			
Additional Notes/Comments	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		

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#1 Front view



#2 Damaged gutter at overhead  
door, east side.



#3 Missing (deteriorated) copper  
eave drip south side, east end.



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#4 Example of numerous areas  
where eave tile course is dam-  
aged and missing.



#5 Damaged gutter and down-  
spout, north side, west end.



#6 Example of "rusted" failing  
nails, for tile system.



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#7 Tile row, which does not even cover previous tile row, nails.



#8 Example of loose sliding tile, throughout roof.



#9 Overview of similar sliding tile.



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#10 Example of recent large  
repair area, at south side, east  
end of roof.



#11 Same caption as photo 10.



#12 Exposed organic mem-  
brane split open and wood de-  
cay beneath. (red circle)



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#13 Water diverter above rear  
entry door.



#14 Long eave repair at west  
end.

