

# Property Maintenance vs. Replacement

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Before



# Cost of 14 years of maintenance vs. full replacement

Cost of repairs over 14 year's

\$ 269,500.00

Cost for complete replacement

\$ 2,475,000.00



# The \$ savings of good maintenance

Cost to maintaining wood siding with paint every five years

\$ 1.20 per square foot to paint

Cost to replace wood siding due to early failure \$ 16.00 - \$ 28.00  
per per square foot



After



# Setting up your maintenance plan



# Your maintenance plan

Collect manufacturer's specifications, warranty information and maintenance requirements for each item, and put your maintenance manual together

Try to obtain a set of your original plans and specifications when your development was built

Budget to fund the maintenance plan

# Site inspection

Important ! Review the installation instruction on site to verify the installer followed the instructions to the letter.

Example: Trex Decking



# Monitoring man-made products

Monitor the availability of your man-made products annually.

Your contractor, Architect, Reserve Specialist or Design Professional can help with all of these steps to help maintain your property.

# Manufacturer's specification

## Installing 5/4 Planks

### COMPONENT DIMENSIONS

- 5/4 Planks (12', 16', 20' lengths; approximately 2.6 lb. per ft.) (Fig. 13)

### FASTENERS

- Use #8x2" stainless steel or galvanized deck screws.
- No pre-drilling required (except in extremely cold conditions).

### LAYOUT CONSIDERATIONS

#### PLEASE SEE DECK PLANK APPLICATIONS ON FIRST PAGE FOR MORE INFORMATION.

- Place the plank textured surface up and measure carefully. Like standard wood planks, TimberTech 5/4 Planks provide a 5-1/2" wide surface area.
- Be certain joist system is properly square.
- When decking runs parallel to house, install from the outside of the deck toward the house so that any ripped planks will be less visible.
- Staggering seams is recommended for best appearance.
- We suggest that the deck slope 1/2" for every 8' away from the house to aid water run-off.
- TimberTech's brushed surface is directional in manner. A shaped notch has been added to one long edge of each plank. When installing 2x6 Plank, 5/4 Plank or Fascia, this marked edge must be laid to the same side (always to left or right as viewed from the ends of the planks) for the entire installation. By doing this, the direction of the brushing will be the same for each board ensuring a consistently colored surface board to board. (Refer to page 9, Figure 49 and Figure 50).

### SPAN REQUIREMENTS

	90° Angle	30° Angle	45° Angle
Maximum Span*	Commercial Residential 12' 16'	10' 14'	8' 11'

\* Special conditions will require an engineering inspection and/or reduced spans. Always consult local building codes.

### INSTALLATION

- Run each screw 3/4" from the outside edge of each plank, using two screws per joist (Fig. 14).
- Planks should be gapped a minimum of 1/8" side to side.
- Leave a 1/8" gap between planks laid end to end, between house wall and planks, and between fascia board and planks.
- Butt joints must fall on a joist.
- Rip last plank as needed to fit (Fig. 15).
- To trim your deck, use TimberTech Fascia Board or End Cap. (See "Trimming a TimberTech Deck.")

## Installing TimberTopper Deck Covers

(For recovering damaged wood decks)

### COMPONENT DIMENSIONS

- TimberTopper (12', 16' lengths; approximately 1.2 lb. per ft.) (Fig. 16)

### INSTALLATION

- Replace any warped deck planks with new wood planks.
- Cut TimberTopper to length and place over existing deck planks.
- TimberTopper must be installed parallel to (running with) the existing deck planks.
- TimberTopper should not overlap the edges of the underlying planks (Fig. 17).
- A gap of at least 1/8" side to side and end to end is necessary to allow for expansion and contraction.
- Fasten every 16" with two #8, 1-1/4" stainless steel or galvanized deck screws 3/4" from the outside edge of the TimberTopper.
- TimberTopper should NEVER be used as deck planks.
- TimberTopper will follow the contour of underlying planks and will not even out warped boards.

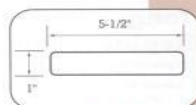


Fig. 13



Fig. 14



Fig. 15

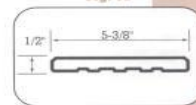


Fig. 16

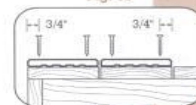


Fig. 17

## Step-Building Instructions

### STAIRS WITH TONGUE-AND-GROOVE PLANKS (USING STARTER STRIP)

- Make sure that the stringer step is a full 13-1/2" wide.
- Maximum joist spacing for stairs is 12" on center—make sure there is at least one joist for support in the middle of the stair span.
- Attach a TimberTech Fascia Board riser to the front of the bottom step and fasten into place, using two #8, 2-1/2" stainless steel or galvanized deck screws at each joist stringer. (Make sure that you have cut the Fascia Board 1-1/2" higher than the step.)
- Place a TimberTech Starter Strip against the riser board (Fig. 18) and fasten into place, using one #8, 2-1/2" stainless steel or galvanized deck screw per joist.
- Using hand pressure only, slip the "tongue" of the first stair tread plank into the Starter Strip "groove"—there will be a gap of up to 1/4" between the stair tread plank and the Starter Strip. You will be able to see part and/or all of the weephole. Do not force the stair tread plank into the Starter Strip.
- Fasten the first stair tread plank into place, using one #8, 2-1/2" stainless steel or galvanized deck screw per stair stringer.
- Fasten the remaining stair tread plank(s) into place as you did the first stair tread plank (Fig. 19). There will be a gap of up to 1/4" between the stair tread planks. You will be able to see part and/or all of the weephole. Do not force the stair tread planks together.
- To create the next step, place the riser board directly on top of the last stair tread plank installed for the previous step (Fig. 20).
- Fasten riser board into place and repeat process for additional steps.

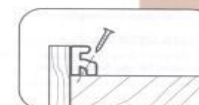


Fig. 18



Fig. 19



Fig. 20

### STAIRS WITH TONGUE-AND-GROOVE PLANKS (NOT USING STARTER STRIP) There will be exposed fasteners on the first stair tread of each step.

- Make sure that the stringer step is a full 11-1/2" wide.
- Maximum joist spacing for stairs is 12" on center—make sure there is at least one joist for support in the middle of the stair span.
- Attach a TimberTech Fascia Board riser to the front of the bottom step and fasten into place, using two #8, 2-1/2" stainless steel or galvanized deck screws at each stair stringer. (Make sure that you have cut the Fascia Board 1-1/8" higher than the step.)
- Cut the "tongue"-side leg off the first stair tread plank. Place the first stair tread edge (the side from which the "tongue"-side leg has been cut) on top of the Fascia Board and fasten into place, using #8, 2-1/2" stainless steel or galvanized deck screws through the stair plank and into the Fascia Board (line up one screw with each stair stringer) (Fig. 21).
- Fasten the first stair tread plank into place through the "groove" side, using one #8, 2-1/2" stainless steel or galvanized deck screw at each stair stringer.
- Fasten the remaining stair tread plank(s) into place by slipping the "tongue" of the stair tread plank into the "groove" of the previous stair tread plank (Fig. 22). There will be a gap of up to 1/4" between the stair tread planks. You will be able to see part and/or all of the weephole. Do not force the stair tread planks together.
- To create the next step, place the riser board directly on top of the last stair tread plank installed for the previous step (Fig. 23).
- Fasten riser board into place and repeat process for additional steps.



Fig. 21



Fig. 22



Fig. 23

# Manufacturer's specifications

## Maintenance

TimberTech highly recommends periodic cleaning of your TimberTech deck to help maintain the beauty of the product. To help prevent the buildup of pollen and other airborne pollutants that can sustain mold and mildew growth, wash down your TimberTech deck periodically with a hose.

## Cleaning

Most deck-cleaning products will work on TimberTech. For best results, cleaners containing any of the following as an active ingredient are recommended:

- Phosphoric Acid
- Oxalic Acid
- Hydrochloric Acid

### ICE AND SNOW

If you reside in a cold weather climate where ice and snow periodically come in contact with your deck, use calcium chloride or rock salt to melt the ice and snow.

### POWER WASHING

Power washing will enhance results when cleaning your TimberTech deck. While you may power wash your TimberTech Deck, you should use caution. Most rental units available at local hardware stores and home centers are 1500-2500 psi machines that deliver 2-3 gallons per minute and have spray wands with a fan tip. These machines will normally do a nice job on wood and will be adequate for the TimberTech surface with the proper cleaning product. Spray will need to be consistent with the grain of the product.

## Stain Removal

### MOLD & MILDEW STAINS

Mold and mildew stains may occur where moisture, shading, pollen and/or dirt are present. Mold and mildew need a food source to grow, which can be grass, pollen, dirt, debris, wood and wood resins. Any horizontal exterior surface presents an excellent environment for mold and mildew.

Maintaining a clean, dry deck surface is the best method for combating mold and mildew. Ensure that water drains effectively from your deck. Keep weep holes clear and unclogged on TimberTech Tongue-and-Groove decks. For TimberTech 5/4 Plank and 2x6 Plank decks, be sure that gaps exist between boards to allow drainage.

### TO CLEAN MOLD AND MILDEW

Use a cleaner that contains Sodium Hypochlorite. Follow manufacturer application instructions. For severe stains, this cleaner should be used at full strength. Wet surface first, apply generously prepared cleaner. Let cleaner remain on surface for 5-10 minutes. Use a stiff bristled brush or broom to clean heavily stained surfaces, following the wood grain finish of the plank. Rinse with fresh water.

### SPOT STAINS

Dill Eater® Cleaner and Degreaser is very effective against oil, grease and other stains. For extra heavy oil and grease stains or other specific stain types, check with your local lumberyards, hardware stores or home centers for cleaners applicable to a specific stain type.

If stains have set, you may want to use fine sandpaper and sand lightly, following the wood grain finish of the plank. The sanded area will weather back to the weathered color in approximately 8-10 weeks.

### RUST, GROUND-IN DIRT AND GRIME

Use a cleaner that contains Phosphoric Acid. This type of cleaner is available at home centers, lumberyards, or hardware stores. Follow manufacturer application instructions. If stains have set, you may want to use fine sandpaper and sand lightly, following the wood grain finish of the plank. The sanded area will weather back to the weathered color in approximately 8-10 weeks.

### SCRATCHES, NICKS, CUTS AND GROOVES

For all products except TimberTech Railing, scratches, nicks, cuts and grooves can be eliminated by using a wire brush. Brushing will need to be consistent with the grain of the product.

### TANNIN STAINS

Like any wood based product, TimberTech may experience a naturally occurring process called extractive bleeding. This process may cause a temporary discoloration that will weather away in 8-10 weeks. To clean these areas on your TimberTech deck, we would recommend using Dekaswood®, made by The Flood Company. You can obtain more information by visiting their web-site at [HimilResAnchor.www.floodco.com](http://HimilResAnchor.www.floodco.com). This type of cleaner is available at your local home center or hardware store.

## Painting/Staining

Although not required, TimberTech may be painted or stained.

- Wait approximately 8-10 weeks or until TimberTech has completed its weathering process before painting or staining.
- For best results, use a high-quality oil based paint or solid-color stain such as Penofin Stains/Sealers.
- Be sure paint or stain does not clog drain holes of TimberTech Tongue-And-Groove planks.
- Once TimberTech is painted or stained, subsequent applications will be necessary to maintain appearance. TimberTech Limited cannot be responsible for the performance of stains or paints applied to any TimberTech Engineered Decking Systems product.
- Clean your TimberTech decking surface before applying paint or stain. NEVER paint or stain over surfaces that may contain dirt, mold, mildew.
- Apply the paint or stain following the manufacturer's application instructions.
- Stains that are recommended to use by TimberTech are:
  - Penofin Knotwood ([www.penofin.com](http://www.penofin.com))
  - Weatherall UV Guard Deck and Fence Coating ([www.weatherall.com](http://www.weatherall.com))
  - Weatherall UV Guard Exterior Wood Finish ([www.weatherall.com](http://www.weatherall.com))
- Sealers that are recommended to use by TimberTech are:
  - Penofin Sealers ([www.penofin.com](http://www.penofin.com))

## Exposure To Weather

- TimberTech Natural will weather to a natural driftwood gray color (light brown in hot, dry climates) in approximately 8-10 weeks.
- There may be a slight color variation from board to board due to the fact that TimberTech is a wood product.
- There may be a slight difference in texture from board to board due to the manufacturing process.
- Shaded areas will weather at a slower rate.
- When TimberTech is used in conjunction with a screened-in porch application, the weathering effect from ultraviolet rays will be cut down approximately 50% because of the screen. We recommend the use of our color products for this type of application.

If Natural TimberTech is used, we recommend the following:

- Weather the deck boards for the screened-in area prior to installation.
- The use of a tannin blocking stain or sealer such as Knotwood by Penofin.

# Destructive testing

It is a good idea from time to time to remove siding and roofing to get a better idea of how your systems are performing.























# DT Saves \$\$

From:

Potential lawsuits

Further property damage

Personal injury

Hidden damages

# Stair systems

Cost to maintain wood stair system

\$ 60.00 per year

Cost to replace stair system due to lack of  
maintenance \$ 4,000.00 - \$ 5,000.00

Cost to maintain a steel stair system

\$60.00 per year

Cost to replace a steel stair system

\$ 6,000.00 - \$ 8,000.00



# Stairs







Decayed Stair Stringer at Grade Level







Deteriorated Stringers at Grade Level





New Concrete Tread Installation





# Metal stairs







Open and Closed Stair Risers

# Coated decking

Cost to maintenance deck coating every 3-5 years \$ 2.50 - 3.00 per square foot.

Cost to replace dry rotted deck system  
\$ 100.00 - \$ 150.00 per square foot





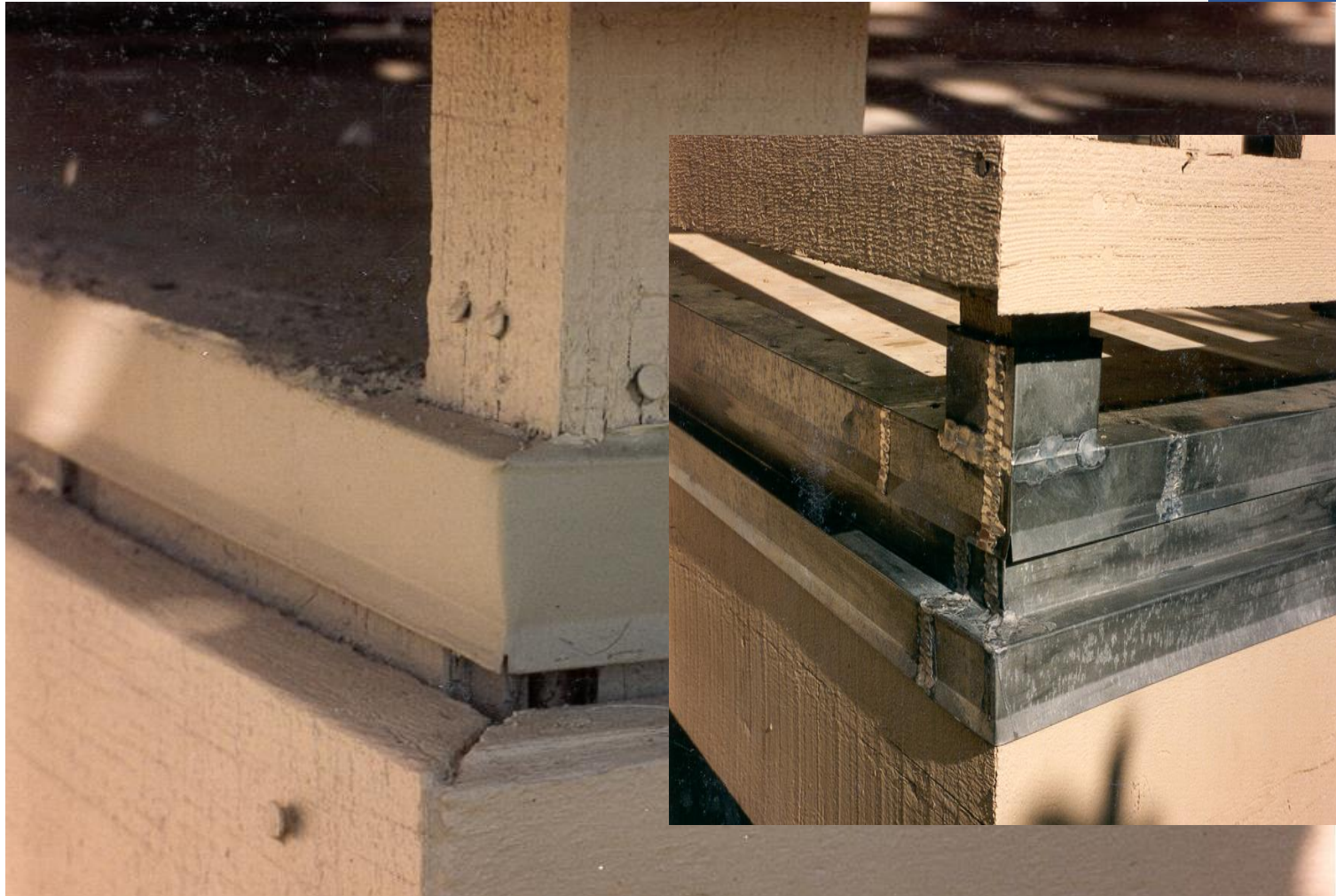
Existing Deteriorated Coating System - Penetrations at Posts and Stair Nosings



Newly Repaired Coated Entry Landing



# Coated deck flashings



# Correct flashing vs. full replacement

Install new deck flashings with coating  
\$35 to \$40 per square foot

Replace deck  
\$100 to \$150 per square foot



# Preventative maintenance repairs

Sometimes it makes \$ sense to improve existing systems to increase the life of that system

# New deck flashing



# Cost to install flashings vs. replace framing

To replace deck boards and install flashings - \$12.50 - \$20.00  
square foot

To replace framing and deck system  
\$ 35.00 to \$80.00 per foot



# Rail caps



# Rail caps



# RAILINGS

- RAIL CAP
- TYP. RAIL CAP LAPS
- RAIL INTERSECT. @ WALL

REMOUNT (E) HANDGRIP BRACKET  
W/ 1/4" DIA X 1-1/4" MIN. LAG SCREWS  
CAULK SCREW HOLES W/ SIKAFLEX.

3/4" MIN. CONT. CHAMFER TYP.

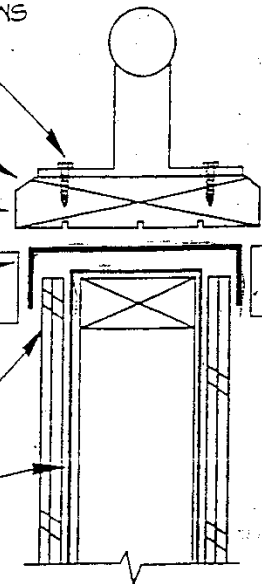
(N) 2x CLEAR REDWOOD  
CAP. MATCH (E). SAW KERF  
AND PRE PRIME BOTTOM.

(N) MEL-ROL WALL HEAD  
WRAP OVER (E) BLD'G  
PAPER, & TOP OF SIDING.

(N) OR (E) 1x2 TRIM PRIMED  
ALL SIDES AND REINSTALLED  
W/ HOT DIPPED 6d NAILS.

(N) SIDING MATCH (E).

ENSURE (N) OR (E)  
BLD'G PAPER.



1

RAIL CAP

SCALE: NTS





Lack of Flashing at Top Rail to Wall

# Rail caps



**Decayed top rail and inner wall framing**

# Cost to flash rail caps vs. replacement

Flash rail caps and replace with new sloped cap \$ 27 - \$37 per foot

Replace decayed rail wall  
\$150 – 200 per foot



# Getting ready to bid the job

## Scope of repair

- Hire a professional to do it ? - Yes
- Have a contractor do it ? - Maybe
- Have the owner do it ? – Maybe
- Make sure that all bids are consistent and that all bidders are bidding the exact same scope of work









# Developing your maintenance team

Property Manager

Design Professional/Construction Manager

Image/Color Consultant

Attorney

Reserve Study Professional

Pre-qualified Contractors



# Getting the work done

Define scope of work

Set realistic expectations

Material selections

Building Department requirements

Project budget review

Reserve study budget review



# Shop around before hiring a contractor

Apartment/ HOA experience

Types of licenses – can they do this work?

Check status with State Licensing Board

[WWW.CSLB.CA.GOV](http://WWW.CSLB.CA.GOV)

Insurance coverage for multi family

# Keep a job file- and update your maintenance file

All pre-bidding  
information

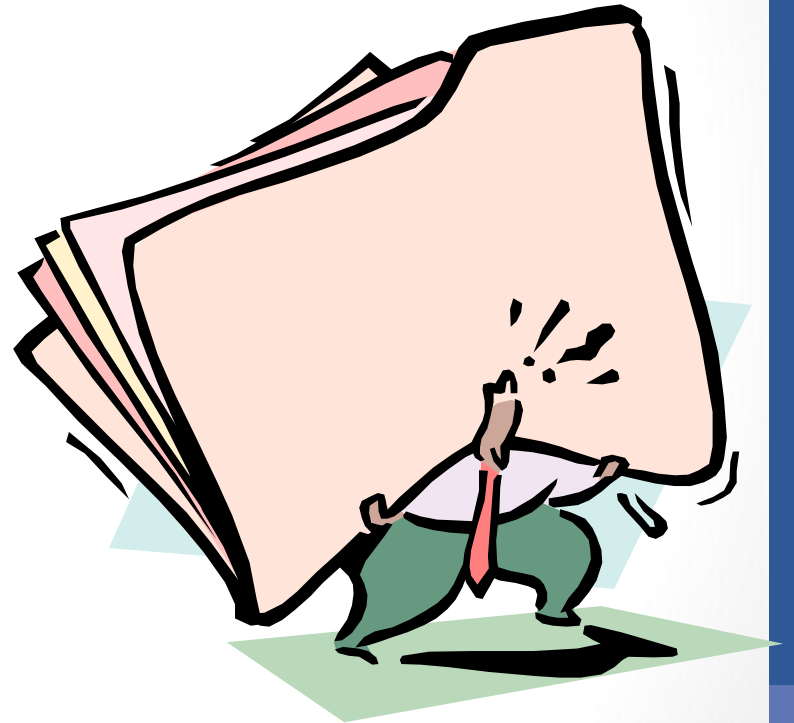
Copy of scope of repair

Meeting minutes

Contract

Correspondence

Permits



# Keep a job file

Change orders

Punch lists

Payment requests

Notice of completion

As Built Drawings



# Project close out

Audit payments

Lien releases

Warranties

Site walk

Pay retention!

Update your reserve  
study !

Thank You for attending!!

