

Client: 22568A North Shore Terrace

Comp #: 510 Bldg 86 Gutters/Dwnspts - Replace

Quantity: Approx 750 linear feet

Location: Perimeter of building

Evaluation: Generally the aluminum gutters and downspouts appeared in fair condition. Terminated into a drainage system - we assume adequate.

As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. National Roofing Contractor Association (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at roughly the time frame below, best timed with roofing.



Useful Life:
36 years

Remaining Life:
11 years

Best Case: \$3,750.00

\$5.00/LF, lower estimate to replace

Worst Case: \$5,250.00

\$7.00/LF, higher estimate to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 510 Bldg 96 A-D Gutters/Dwnspts - Rplc

Quantity: Approx 680 linear feet

Location: Perimeter of building

Evaluation: Generally the aluminum gutters and downspouts appeared in fair to good condition. Terminated into a drainage system - we assume adequate.

As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. National Roofing Contractor Association (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at roughly the time frame below, best timed with roofing.



Useful Life:
36 years

Remaining Life:
18 years

Best Case: \$3,400.00

\$5.00/LF, lower estimate to replace

Worst Case: \$4,760.00

\$7.00/LF, higher estimate to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 510 Bldg 96 E-H Gutters/Dwnspts - Rplc

Quantity: Approx 500 linear feet

Location: Perimeter of building

Evaluation: Generally the aluminum gutters and downspouts appeared in fair to good condition. Terminated into a drainage system - we assume adequate.

As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. National Roofing Contractor Association (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at roughly the time frame below, best timed with roofing.



Useful Life:
36 years

Remaining Life:
20 years

Best Case: \$2,500.00

\$5.00/LF, lower estimate to replace

Worst Case: \$3,500.00

\$7.00/LF, higher estimate to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 515 Bldg 85 Vent Hoods - Replace

Quantity: (4) metal hoods

Location: Rooftop of building

Evaluation: Observation from ground level - no damage or unusual wear noted.

As routine maintenance, inspect and clean during roof maintenance, ensure proper attachment and seal. Repair locally as needed. This project should be less than the reserve funding threshold (<\$2,000) - best to treat as general operating / maintenance expense, not as cyclical reserve component.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 515 Bldg 86 Chimney Covers & Flue Caps

Quantity: (6) caps / hoods

Location: Chimney at each unit

Evaluation: Did not observe close up. In viewing from ground level, appears to be stainless steel cap and flashing. Assumed to have been installed around time of siding replacement in 2001.

As routine maintenance, inspect and clean during roof maintenance. Ensure proper attachment and seal; repair locally as needed. Assuming proactive maintenance, plan for total replacement at roughly the time frame indicated below. Review condition of chimney caps and flue caps with consultant while evaluating the roofing project.

Useful Life:
30 years

Remaining Life:
19 years



Best Case: \$4,800.00

\$800/each chimney cover and cap, lower estimate to replace

Worst Case: \$6,000.00

\$1,000/each chimney cover and cap, higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 515 Bldg 96 A-D Vent Hoods - Replace

Quantity: (4) metal vent hoods

Location: Rooftop of building

Evaluation: Observation from ground level - no damage or unusual wear noted.

As routine maintenance, inspect and clean during roof maintenance, ensure proper attachment and seal. Repair locally as needed. This project should be less than the reserve funding threshold (<\$2,000) - best to treat as general operating / maintenance expense, not as cyclical reserve component.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 515 Bldg 96 E-H Vent Hoods - Replace

Quantity: (4) metal vent hoods

Location: Rooftop of building

Evaluation: Observation from ground level - no damage or unusual wear noted.

As routine maintenance, inspect and clean during roof maintenance, ensure proper attachment and seal. Repair locally as needed. This project should be less than the reserve funding threshold (<\$2,000) - best to treat as general operating / maintenance expense, not as cyclical reserve component.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 66 - Paint/Caulk

Quantity: Approx 7,420 GSF

Location: Exterior building surfaces: siding, trim, doors

Evaluation: Horizontal fiber-cement siding. The paint appeared to be in fair condition. No extensive peeling or blistering observed, but generally faded. The sealants (caulking) show voids and need to be redone soon. When the buildings were re-sided, head flashings were not installed at the windows and the frames are caulked to the siding at the head. This can result in any water that makes its way beneath the siding to become trapped and lead to damage. Fungal growth was noted at the window frame between 66 A & B (see photo). This should be investigated soon - the association should consider remedial measures to correct, or at minimum ensure properly designed sealant joints with top quality material be installed until the windows are replaced and the openings are properly waterproofed.

Condominium reported that they last painted in 2001.

As routine maintenance, inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-9 years and silicone's life can be 16-20 years. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to painting/caulking.

Additional information on painting is available through American Coatings Association at <http://www.paint.org/>

Useful life below is based on the condominium's history, our experience and the sealant condition.

Useful Life:
10 years

Remaining Life:
0 years



Best Case: \$11,130.00
\$1.50/Sq Ft, lower estimate to prep and paint / caulk

Worst Case: \$14,840.00
\$2.00/Sq Ft, higher estimate, more prep work;
better quality materials

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 76 - Paint/Caulk

Quantity: Approx 7,420 GSF

Location: Exterior building surfaces: siding, trim, doors

Evaluation: Horizontal fiber-cement siding. The paint appeared to be in fair condition. No extensive peeling or blistering observed, but generally faded. The sealants (caulking) show voids and need to be redone soon. When the buildings were re-sided, head flashings were not installed at the windows and the frames are caulked to the siding at the head. This can result in any water that makes its way beneath the siding to become trapped and lead to damage. Condominium reported that they last painted in 2001.

As routine maintenance, inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-9 years and silicone's life can be 16-20 years. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to painting/caulking.

Additional information on painting is available through American Coatings Association at <http://www.paint.org/>

Useful life below is based on the condominium's history, our experience and the sealant condition.

Useful Life:
10 years

Remaining Life:
0 years



Best Case: \$11,130.00
\$1.50/Sq Ft, lower estimate to prep and paint / caulk

Worst Case: \$14,840.00
\$2.00/Sq Ft, higher estimate, more prep work; better quality materials

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 85 - Paint/Caulk

Quantity: Approx 4,000 GSF

Location: Exterior building surfaces: siding, trim, doors

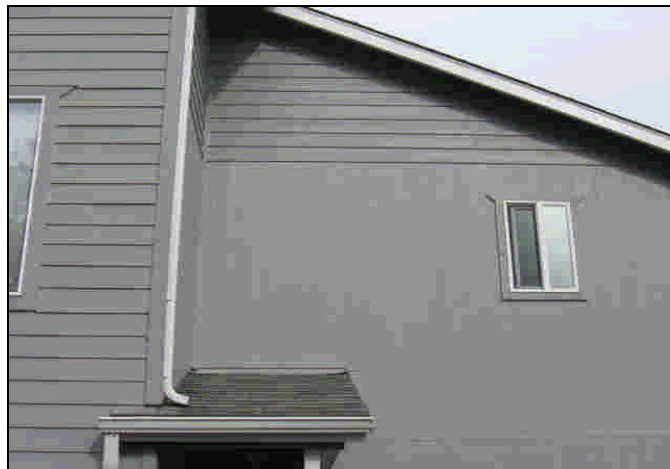
Evaluation: Horizontal fiber-cement siding. The south elevation siding was reportedly replaced and subsequently painted in 2008 / 2009. The paint appeared to be in fair condition with general fading and wear, but no peeling or blistering observed.

As routine maintenance, inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-9 years and silicone's life can be 16-20 years. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to painting/caulking.

Additional information on painting is available through American Coatings Association at <http://www.paint.org/>

The south side may just need to be touched up at the next scheduled paint job.



Useful Life:
10 years

Remaining Life:
3 years

Best Case: \$6,000.00

\$1.50/Sq Ft, lower estimate to prep and paint / caulk

Worst Case: \$8,000.00

\$2.00/Sq Ft, higher estimate, more prep work; better quality materials

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 86 - N & E Paint/Caulk

Quantity: ~2,000 of 5,470 GSF

Location: Exterior building surfaces: siding, trim, doors

Evaluation: Horizontal fiber-cement siding, replaced in phases (S & W in 2001, N & E in 2010). Because of this phased siding approach on different elevations, we have scheduled building 86 herein as two separate projects, with the N & E elevations due again in 2020. The paint appeared to be in good condition.

As routine maintenance, inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-9 years and silicone's life can be 16-20 years. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to painting/caulking.

Additional information on painting is available through American Coatings Association at <http://www.paint.org/>

Useful Life:
10 years

Remaining Life:
8 years



Best Case: \$3,000.00

\$1.50/Sq Ft, lower estimate to prep and paint /
caulk (x 2,000 sf)

Worst Case: \$4,000.00

\$2.00/Sq Ft, higher estimate, more prep work;
better quality materials

Cost Source: Inflated Client Cost History

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 86 - S & W Paint/Caulk

Quantity: ~3,470 of 5,470 GSF

Location: Exterior building surfaces: siding, trim, doors

Evaluation: Horizontal fiber-cement siding, replaced in phases (S & W in 2001, N & E in 2010). Because of this phased siding approach on different elevations, we have scheduled building 86 herein as two separate projects, with the S & W elevations due in 2014. The paint appeared to be in fair condition with general fading and wear, but no peeling or blistering observed.

As routine maintenance, inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-9 years and silicone's life can be 16-20 years. Incorrect installations of sealant are common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to painting/caulking.

Additional information on painting is available through American Coatings Association at <http://www.paint.org/>

Useful Life:
10 years

Remaining Life:
2 years



Best Case: \$5,210.00

\$1.50/Sq Ft, lower estimate to prep and paint /
caulk (x 3,470)

Worst Case: \$6,940.00

\$2.00/Sq Ft, higher estimate, more prep work;
better quality materials

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 96 A-D - Paint/Caulk

Quantity: Approx 5,230 GSF

Location: Exterior building surfaces: siding, trim, doors

Evaluation: Siding has been replaced in a phased manner over time from 2003 to 2011; painting occurred at the end of each siding project.

We recommend a cyclical project for the whole building in future years - scheduled below to occur next in 2017. Evaluate and adjust remaining useful life as it approaches zero years.

As routine maintenance, inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical Northwest paint cycles vary greatly depending upon many factors including; type of material painted, surface preparations, quality of primer/paint/stain, application methods, weather conditions during application, moisture beneath paint, and exposure to weather conditions.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-9 years and silicone's life can be 16-20 years. Incorrect installations of sealant are common, and can greatly decrease its useful life. Siding contractor, Ken Brophy reports he used Vulkem urethane sealant.

Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight, they will dry out, harden, and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to painting/caulking.

Additional information on painting is available through American Coatings Association at <http://www.paint.org/>



Useful Life:
10 years

Remaining Life:
5 years

Best Case: \$10,460.00

\$2.00/Sq Ft, lower estimate to prep, caulk and paint

Worst Case: \$13,080.00

\$2.50/Sq Ft, higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 525 Bldg 96 E-H - Paint/Caulk

Quantity: Approx 4,100 GSF

Location: Exterior building surfaces: siding, trim, doors

Evaluation: Siding is fiber-cement, horizontal orientation, reportedly built in 1996. No reports of complete paint since original - we assume periodic touch up has been conducted.

Scheduled below for 2013.

Useful Life:
10 years

Remaining Life:
1 years



Best Case: \$6,150.00

\$1.50/Sq Ft, lower estimate to prep, caulk and paint

Worst Case: \$8,200.00

\$2.00/Sq Ft, higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 535 Bldg. 66 Windows,Sliders - Replace

Quantity: (30) windows (7) sliders

Location: Building exterior walls

Evaluation: Windows were vinyl frames with horizontal sliders, and fixed operation. Head flashing was not observed - should be added when replacement occurs. Be careful to properly sequence the flashing with the WRB below siding and do not caulk the new flashing to the siding. Current jambs and sills had sealant joint between window frame and cladding that is failing. Weep holes, at exterior lower corners, were observed to be clear, in the few windows sampled for our report. Some condensation was observed between window panes, which is typically indicative of failed glazing seals.

Inspect regularly, including sealant, and repair as needed using operating / maintenance funds. Keep weep holes free and clear to allow proper drainage of water that gets into window frame.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-8 years and silicone's life can be 16-20 years. Incorrect installation of sealant is common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant failures include; lack of adherence to adjacent materials, tearing/splitting of the sealant itself, and lose of elastic ability. Lose of elastic ability can be caused by exposure to ultra-violet light and general aging. Remove and replace all sealants as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking.

One of the most important factors in selection window is the design pressure rating. The design pressure rating (DP) is the ability of the window to withstand wind blown rain, and a few other criteria. Manufacturers can choose to have a sample of their windows tested. Independent third parties perform testing following American Architectural Manufacturers Association (AAMA) standards and procedures. AAMA stickers are placed on windows with the specific DP rating (psf) and largest size of the window that meets the design pressure. No AAMA stickers were found on the few windows sampled for this report.

With ordinary care and maintenance, useful life is limited, although difficult to predict. Many factors affect useful life including quality of window installed, waterproofing flashing details, exposure to wind driven rain. We recommend financially planning for a 30-year useful life that can be modified as the remaining useful life approaches zero years and the aging of the windows and sliding doors becomes apparent. Note: there are many types of glazing and windows types, material and quality, available in today's market; and costs can vary greatly.

Check with your utility company for any energy saving program. Some have a rebate program for installing new energy efficient windows.

Useful Life:
30 years

Remaining Life:
10 years



Best Case: \$28,000.00
\$4,000/unit, lower allowance to replace

Worst Case: \$42,000.00
\$6,000/unit, higher allowance; better quality, additional scope of work

Client: 22568A North Shore Terrace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 535 Bldg. 76 Windows,Sliders - Replace

Quantity: (30) windows (7) sliders

Location: Building exterior walls

Evaluation: Windows were vinyl frames with horizontal sliders, and fixed operation. Head flashing was not observed - should be added when replacement occurs. Be careful to properly sequence the flashing with the WRB below siding and do not caulk the new flashing to the siding. Current jambs and sills had sealant joint between window frame and cladding that is failing. Weep holes, at exterior lower corners, were observed to be clear, in the few windows sampled for our report. Some condensation was observed between window panes, which is typically indicative of failed glazing seals.

Inspect regularly, including sealant, and repair as needed using operating / maintenance funds. Keep weep holes free and clear to allow proper drainage of water that gets into window frame.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-8 years and silicone's life can be 16-20 years. Incorrect installation of sealant is common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant failures include; lack of adherence to adjacent materials, tearing/splitting of the sealant itself, and lose of elastic ability. Lose of elastic ability can be caused by exposure to ultra-violet light and general aging. Remove and replace all sealants as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking.

One of the most important factors in selection window is the design pressure rating. The design pressure rating (DP) is the ability of the window to withstand wind blown rain, and a few other criteria. Manufacturers can choose to have a sample of their windows tested. Independent third parties perform testing following American Architectural Manufacturers Association (AAMA) standards and procedures. AAMA stickers are placed on windows with the specific DP rating (psf) and largest size of the window that meets the design pressure. No AAMA stickers were found on the few windows sampled for this report.

With ordinary care and maintenance, useful life is limited, although difficult to predict. Many factors affect useful life including quality of window installed, waterproofing flashing details, exposure to wind driven rain. We recommend financially planning for a 30-year useful life that can be modified as the remaining useful life approaches zero years and the aging of the windows and sliding doors becomes apparent. Note: there are many types of glazing and windows types, material and quality, available in today's market; and costs can vary greatly.

Check with your utility company for any energy saving program. Some have a rebate program for installing new energy efficient windows.

Useful Life:
30 years

Remaining Life:
10 years



Best Case: \$28,000.00

\$4,000/unit, lower allowance to replace

Worst Case: \$42,000.00

\$6,000/unit, higher allowance; better quality, additional scope of work

Client: 22568A North Shore Terrace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 535 Bldg. 85 Windows,Sliders - Replace

Quantity: (23) windows (8) sldrs

Location: Building exterior walls

Evaluation: Windows were vinyl frames with horizontal sliders, and fixed operation. Head flashing was not observed - should be added when replacement occurs. Be careful to properly sequence the flashing with the WRB below siding and do not caulk the new flashing to the siding. Current jambs and sills had sealant joint between window frame and cladding that is failing. Weep holes, at exterior lower corners, were observed to be clear, in the few windows sampled for our report. Some condensation was observed between window panes, which is typically indicative of failed glazing seals.

Inspect regularly, including sealant, and repair as needed using operating / maintenance funds. Keep weep holes free and clear to allow proper drainage of water that gets into window frame.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-8 years and silicone's life can be 16-20 years. Incorrect installation of sealant is common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant failures include; lack of adherence to adjacent materials, tearing/splitting of the sealant itself, and lose of elastic ability. Lose of elastic ability can be caused by exposure to ultra-violet light and general aging. Remove and replace all sealants as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking.

One of the most important factors in selection window is the design pressure rating. The design pressure rating (DP) is the ability of the window to withstand wind blown rain, and a few other criteria. Manufacturers can choose to have a sample of their windows tested. Independent third parties perform testing following American Architectural Manufacturers Association (AAMA) standards and procedures. AAMA stickers are placed on windows with the specific DP rating (psf) and largest size of the window that meets the design pressure. No AAMA stickers were found on the few windows sampled for this report.

With ordinary care and maintenance, useful life is limited, although difficult to predict. Many factors affect useful life including quality of window installed, waterproofing flashing details, exposure to wind driven rain. We recommend financially planning for a 30-year useful life that can be modified as the remaining useful life approaches zero years and the aging of the windows and sliding doors becomes apparent. Note: there are many types of glazing and windows types, material and quality, available in today's market; and costs can vary greatly.

Check with your utility company for any energy saving program. Some have a rebate program for installing new energy efficient windows.

Useful Life:
30 years

Remaining Life:
17 years



Best Case: \$25,700.00

\$6,425/unit, lower allowance to replace

Worst Case: \$39,000.00

\$9,750/unit, higher allowance; better quality, additional scope of work

Client: 22568A North Shore Terrace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 535 Bldg. 86 Windows,Sliders - Replace

Quantity: (29) windows (6) sldrs

Location: Building exterior walls

Evaluation: Windows were vinyl frames with horizontal sliders, and fixed operation. Head flashing was not observed - should be added when replacement occurs. Be careful to properly sequence the flashing with the WRB below siding and do not caulk the new flashing to the siding. Current jambs and sills had sealant joint between window frame and cladding that is failing. Weep holes, at exterior lower corners, were observed to be clear, in the few windows sampled for our report. Some condensation was observed between window panes, which is typically indicative of failed glazing seals.

Inspect regularly, including sealant, and repair as needed using operating / maintenance funds. Keep weep holes free and clear to allow proper drainage of water that gets into window frame.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-8 years and silicone's life can be 16-20 years. Incorrect installation of sealant is common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant failures include; lack of adherence to adjacent materials, tearing/splitting of the sealant itself, and lose of elastic ability. Lose of elastic ability can be caused by exposure to ultra-violet light and general aging. Remove and replace all sealants as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking.

One of the most important factors in selection window is the design pressure rating. The design pressure rating (DP) is the ability of the window to withstand wind blown rain, and a few other criteria. Manufacturers can choose to have a sample of their windows tested. Independent third parties perform testing following American Architectural Manufacturers Association (AAMA) standards and procedures. AAMA stickers are placed on windows with the specific DP rating (psf) and largest size of the window that meets the design pressure. No AAMA stickers were found on the few windows sampled for this report.

With ordinary care and maintenance, useful life is limited, although difficult to predict. Many factors affect useful life including quality of window installed, waterproofing flashing details, exposure to wind driven rain. We recommend financially planning for a 30-year useful life that can be modified as the remaining useful life approaches zero years and the aging of the windows and sliding doors becomes apparent. Note: there are many types of glazing and windows types, material and quality, available in today's market; and costs can vary greatly.

Check with your utility company for any energy saving program. Some have a rebate program for installing new energy efficient windows.

Useful Life:
30 years

Remaining Life:
9 years



Best Case: \$27,480.00

\$4,580/unit, lower allowance to replace

Worst Case: \$34,980.00

\$5,830/unit, higher allowance; better quality, additional scope of work

Client: 22568A North Shore Terrace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 535 Bldg. 96 A-D Wndws,Sldrs - Replace

Quantity: (20) windows (8) sldrs

Location: Building exterior walls

Evaluation: Windows were vinyl frames with horizontal sliders, and fixed operation. Head flashing was not observed - should be added when replacement occurs. Be careful to properly sequence the flashing with the WRB below siding and do not caulk the new flashing to the siding. Current jambs and sills had sealant joint between window frame and cladding that is failing. Weep holes, at exterior lower corners, were observed to be clear, in the few windows sampled for our report.

Inspect regularly, including sealant, and repair as needed using operating / maintenance funds. Keep weep holes free and clear to allow proper drainage of water that gets into window frame.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-8 years and silicone's life can be 16-20 years. Ken Brophy indicates he used Vulkem urethane. Incorrect installation of sealant is common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant failures include; lack of adherence to adjacent materials, tearing/splitting of the sealant itself, and lose of elastic ability. Lose of elastic ability can be caused by exposure to ultra-violet light and general aging. Remove and replace all sealants as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking.

One of the most important factors in selection window is the design pressure rating. The design pressure rating (DP) is the ability of the window to withstand wind blown rain, and a few other criteria. Manufacturers can choose to have a sample of their windows tested. Independent third parties perform testing following American Architectural Manufacturers Association (AAMA) standards and procedures. AAMA stickers are placed on windows with the specific DP rating (psf) and largest size of the window that meets the design pressure. No AAMA stickers were found on the few windows sampled for this report.

With ordinary care and maintenance, useful life is limited, although difficult to predict. Many factors affect useful life including quality of window installed, waterproofing flashing details, exposure to wind driven rain. We recommend financially planning for a 30-year useful life that can be modified as the remaining useful life approaches zero years and the aging of the windows and sliding doors becomes apparent. Note: there are many types of glazing and windows types, material and quality, available in today's market; and costs can vary greatly.

Check with your utility company for any energy saving program. Some have a rebate program for installing new energy efficient windows.

Useful Life:
30 years

Remaining Life:
15 years



Best Case: \$27,480.00
\$4,580/unit, lower allowance to replace

Worst Case: \$34,980.00
\$5,830/unit, higher allowance; better quality, additional scope of work

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Client: 22568A North Shore Terrace

Comp #: 535 Bldg. 96 E-H Wndws,Sldrs - Replace

Quantity: (20) windows (12) sldrs

Location: Building exterior walls

Evaluation: Windows were vinyl frames with horizontal sliders, and fixed operation. Head flashing was not observed - should be added when replacement occurs. Be careful to properly sequence the flashing with the WRB below siding and do not caulk the new flashing to the siding. Current jambs and sills had sealant joint between window frame and cladding that is failing. Weep holes, at exterior lower corners, were observed to be clear, in the few windows sampled for our report.

Inspect regularly, including sealant, and repair as needed using operating / maintenance funds. Keep weep holes free and clear to allow proper drainage of water that gets into window frame.

Proper sealant/caulking is critical to keeping water out of the walls, and preventing water damage. Two common types of sealants/caulking are urethane and silicone. If properly installed, urethane has a life of approximately 6-8 years and silicone's life can be 16-20 years. Ken Brophy indicates he used Vulkem urethane. Incorrect installation of sealant is common, and can greatly decrease its useful life. Inspect sealant, more frequently as it ages, to determine if it is failing. Typical sealant failures include; lack of adherence to adjacent materials, tearing/splitting of the sealant itself, and lose of elastic ability. Lose of elastic ability can be caused by exposure to ultra-violet light and general aging. Remove and replace all sealants as signs of failure begin to appear. Proper cleaning, prep work, and proper installation are critical for a long lasting sealant/caulking.

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Check with your utility company for any energy saving program. Some have a rebate program for installing new energy efficient windows.

Useful Life:
30 years

Remaining Life:
16 years



Best Case: \$28,400.00
\$7,100/unit, lower allowance to replace

Worst Case: \$44,000.00
\$11,000/unit, higher allowance; better quality, additional scope of work

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 538 **Doors: Unit Entry, Garage Man Doors**

Quantity: Approx (64) doors

Location: Exterior entry man doors at units and garage

Evaluation: Exterior doors were mostly metal. Some local replacement due to rust and wear. New man door at 96 bldg. Noted to be fiberglass. Expect similar replacement needs over time, but not on schedule as predictable reserve project. We suggest inspecting each year and allocating any replacement funding needs within the operating / maintenance budget.

Door painting is included as part of exterior painting. Touch up paint as needed between painting cycles. Inspect periodically and repair as needed to maintain appearance, security and operation with maintenance funds. No predictable large scale repair or replacement of doors. No reserve funding suggested.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 540 Decks - Clean/Seal

Quantity: Approx 4,715 square feet

Location: Wood decks, porches throughout association

Evaluation: Age and appearance varies throughout; some newer (bldg 85 pictured), some in need of replacement soon (bldg's 66 & 76). Typically, wood decks should be cleaned and sealed with a product specifically formulated for these wood traffic surfaces. We suggest this project be scheduled every two years at all decks, beginning in 2012 for cost efficiency and consistent appearance throughout.

condominium reported...

Useful Life:
2 years

Remaining Life:
0 years



Best Case: \$4,715.00

\$1.00/Sq Ft, lower allowance to clean and seal

Worst Case: \$7,075.00

\$1.50/Sq Ft, higher allowance; some repair included, better product spec's, etc...

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 545 Bldg 66 Decks - Repair/Replace

Quantity: Approx 1,100 GSF

Location: Rear yards, entry porches

Evaluation: Generally poor condition with advanced aging and deterioration. Deck surface is open boards that allows water to drain off between wood boards. No rail assembly. Condominium reported decks will be addressed in the near future.

Inspect decks and porches annually and repair as needed. As part of maintenance, apply water repellant stain/preservative at least every other year. Painting of porches is included in component # 525, or as maintenance project.

Options for a longer lasting deck include such things as using a thick wood boards that are treated, cedar or redwood, or a composite product. Composite materials are available that require less maintenance. Funding for replacing existing wood boards with in-kind material is factored below.



Useful Life:
20 years

Remaining Life:
0 years

Best Case: \$22,000.00

\$20/Sq Ft, lower allowance to replace

Worst Case: \$27,500.00

\$25/Sq Ft, higher allowance to replace; upgraded

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 545 Bldg 76 Decks - Repair/Replace

Quantity: Approx 1,100 GSF

Location: Rear yards, entry porches

Evaluation: Limited observation as back yards are fenced. Photo taken below deck at 76 A - some moisture saturation and mildewing noted. Association indicates decks will be addressed in the near future; we did not have a scope of work or contractor estimates to review.

Inspect decks and porches annually and repair as needed. As part of maintenance, apply water repellent stain/preservative at least every other year.

Options for a longer lasting deck include such things as using a thick wood boards that are treated, cedar or redwood, or a composite product. Composite materials are available that require less maintenance. Funding for replacing existing wood boards with in-kind material is factored below.



Useful Life:
20 years

Remaining Life:
0 years

Best Case: \$22,000.00
\$20/Sq Ft, lower allowance to replace

Worst Case: \$27,500.00
\$25/Sq Ft, higher allowance to replace; upgraded

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 545 Bldg 85 Decks - Repair/Replace

Quantity: Approx 1,120 GSF

Location: Rear yards, entry porches

Evaluation: Deck surface is open boards that allows water to drain off between wood boards. Rebuilt in 2009; contractor indicated deck boards and rail assembly replaced, not structural beams / joists.

We have factored 20 year replacement cycles below - RUL is increased by one year from chronological age to allow for cyclical staining of all decks. Allowance a little higher than 66 / 76 due to access restrictions and height.



Useful Life:
20 years

Remaining Life:
18 years

Best Case: \$28,000.00

\$25/Sq Ft, lower allowance to replace

Worst Case: \$39,200.00

\$35/Sq Ft, higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 545 Bldg 86 Decks - Repair/Replace

Quantity: Approx 250 GSF

Location: Rear of two units at building 86

Evaluation: Deck surface is open boards that allows water to drain off between wood boards Our inspection was limited to ends of decks behind fence.

Condominium reported these were replaced in 2010 at association expense.

Inspect deck, stairs, and railings annually and repair as needed. As part of maintenance, apply water repellent stain/preservative periodically - see component #540. Almost all exterior wood in the Northwest will decay over time and require replacement. Options for a longer lasting deck include such things as using a thick wood boards (treated, cedar, etc...) or a composite product. Composite materials are available that require less maintenance. Funding for replacing existing wood boards with in-kind material is factored below. Costs can increase greatly, if decay of the structural framing is found.



Useful Life:

20 years

Remaining Life:

18 years

Best Case: \$6,250.00

\$25/Sq Ft, lower allowance to replace

Worst Case: \$8,750.00

\$35/Sq Ft, higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 545 Bldg 96 A-D Decks - Repair/Replace

Quantity: Approx 600 square feet

Location: Rear of building

Evaluation: Deck surface is open boards that allows water to drain off between wood boards Our inspection was limited to ground level perspective. No reported problems and no visible problems noted. Installed in 1994. Have contractor evaluate closely to further determine remaining life - twenty year cycles of replacement factored below. Allowance a little higher than 66 / 76 due to access restrictions and height.

Inspect deck, stairs, and railings annually and repair as needed. As part of maintenance, apply water repellent stain/preservative at least every other year.

Useful Life:
20 years

Remaining Life:
2 years



Best Case: \$15,000.00

\$25/Sq Ft, lower allowance to replace

Worst Case: \$21,000.00

\$35/Sq Ft, higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 545 Bldg 96 E-H Decks - Repair/Replace

Quantity: Approx 545 square feet

Location: Rear of building

Evaluation: Deck surface is open boards that allows water to drain off between wood boards Our inspection was limited to ground level perspective. No reported problems and no visible problems noted. Installed in 1996. Have contractor evaluate closely to further determine remaining life - twenty year cycles of replacement factored below. Allowance a little higher than 66 / 76 due to access restrictions and height.

Inspect deck, stairs, and railings annually and repair as needed. As part of maintenance, apply water repellent stain/preservative at least every other year.

Useful Life:
20 years

Remaining Life:
4 years



Best Case: \$13,625.00

\$25/Sq Ft, lower allowance to replace

Worst Case: \$19,075.00

\$35/Sq Ft, higher allowance to replace

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

Comp #: 605 **Garage Doors - Repair/Replace**

Quantity: (20 single (8) double

Location: Garage entry

Evaluation: Varying appearance - some history of door replacement. All appeared to be generally in functional condition during our site visit. These door types can last for many years if properly maintained and not damaged or abused. Without a basis for cyclical replacement funding, it is more appropriate to factor any periodic replacement needs within the annual operating budget - or - if future conditions indicate a larger project is needed, funding can be incorporated within a future reserve study update. No reserve funding suggested at this time.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 900 Plumbing - Repair/Replace

Quantity: Supply, waste, drains

Location: Throughout buildings

Evaluation: Analysis of plumbing systems is beyond the scope of our services. No reported problems at this time. Typically, if installed per architectural specifications and local building codes, there is no predictable time frame for large scale repair/replacement expenses within the scope of our report. If leaks, poor flow, sediments, defective material and/or installation become evident, have qualified plumber or engineer inspect closely and develop scope of repair/replacement; funding for even one time projects can be incorporated within reserve study updates. Treat minor local repairs as ongoing maintenance expense. If patterns of significant repair emerge, funding may be incorporated into reserve study updates to supplement the operating budget. No basis for reserve funding at this time.

Useful Life:

Remaining Life:

Photo Not Available

Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 905 Electrical System - Repair/Replace

Quantity: Main, branch systems

Location: Throughout common areas of association

Evaluation: Analysis of electrical system(s), beyond visual inspection, is not within the scope of a reserve study. No reported issues or problems at this time.

Typically, if installed per architectural specifications, building codes, and electric codes, without defect, there is no predictable time frame for large-scale repair/replacement expenses within the scope of our review. Treat minor repairs as ongoing maintenance expense.

Some electrical system components used historically are known to be life limited. Manufacturing defects can become apparent from time to time and certain site conditions can contribute to premature deterioration of system components. Periodic inspections and maintenance by an electrician may be wise operating expense. Some associations employ infrared or other testing methodologies to identify potential trouble spots.

A good resource book available for purchase is NFPA 70B Recommended Practices for Electrical Equipment Maintenance. Funding may be incorporated into future reserve study updates if conditions change. No basis for reserve funding at this time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

Client: 22568A North Shore Terrace

Comp #: 930 Sewer Pumps - Replace

Quantity: (2) pumps

Location: Between 96 A-D and 96 E-H

Evaluation: This sewer lift station serves the 96 buildings only. Pumps were reportedly replaced in 2010 and the outfall piping was changed to 2" for better performance. We have factored 15 year replacement interval below. Units in 96 building reportedly pay a surcharge for this equipment - a portion of that surcharge is operating / maintenance expense, remainder is reserves. Table 3 in the financial section of our report shows this components related cost for the ongoing reserve needs portion.

Useful Life:
15 years

Remaining Life:
13 years



Best Case: \$3,200.00

Lower estimate to replace pumps

Worst Case: \$4,200.00

Higher estimate

Cost Source: Client Cost History

Client: 22568A North Shore Terrace

Comp #: 999 Reserve Study - Update

Quantity: Update

Location: Common areas of association

Evaluation: Reserve studies should be updated periodically (see Oregon Revised Statutes ORS 100). We recommend updates with site inspections to occur no less than every three years to assess changes in condition (i.e., physical, economic, governmental, etc...) and the resulting effect on the community's long-term reserve plan. Most appropriately factored within operating budget, not as reserve component.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:
