



togetherforbetter

HOUSING REHABILITATION STANDARDS

Clark County Community Housing Office
Clark County, Nevada

January 10, 2024

For Rehabilitation of
Multi-Family Rental
Units on CHF & HOME
Funded Projects

Table of Contents

CHF AND HOME PROGRAM REHABILITATION STANDARDS FOR MULTI-FAMILY PROJECTS	3
Introduction	3
Applicable Laws and Regulations	4
HOME Requirements	5
Best Practice Guidance	6
Applicable Activities	6
Exceptions	6
Rehabilitation Standards	7
1. Health & Safety	7
2. Site	9
3. Exterior Building Surfaces	11
4. Foundations & Structure	12
5. Windows and Doors	12
6. Roofing.....	13
7. Insulation and Ventilation	13
8. Interior Standards	14
9. Electric	16
10. Plumbing System	17
11. HVAC	19
12. Appliances	20
13. Broadband Infrastructure	20
Exhibit #1-Rehab Acknowledgement and Certification	21

CHF AND HOME PROGRAM REHABILITATION STANDARDS FOR MULTI-FAMILY RENTAL PROJECTS

Introduction

The following standards are provided by the Clark County Community Housing Office (CHO) to be used as a guide for projects that receive either CHF (Clark County Community Housing Funds) and/or United States Department of Housing and Urban Development (HUD) HOME Investments Partnerships Program (HOME) funding for the rehabilitation of multi-family rental projects.

These standards are intended to provide consistency and quality control in the rehabilitation of structures under the CHF and the HOME programs. Projects can, and often do, include both sources of funding. HOME program requirements that do not apply to CHF only funded projects will be noted. For projects that include both funding sources, the strictest standard will apply.

These rehabilitation standards are minimum project guidelines that projects are required to meet or exceed. In recognition that each rehabilitation project is unique and bound by financial constraints where certain prescribed standards may not be practical or feasible, these standards may be modified upon review and approval by the Clark County Community Housing Office Administrator. In general, the standards aspire to reduce utility costs by maximizing energy efficiency and minimize maintenance cost by installing the most durable, long-lasting materials and products available within budget constraints.

The primary considerations for the rehabilitation standards and required procedures are as follows:

- Health and Safety
 - Identify and immediately address any life-threatening deficiencies.
- Major Systems
 - Replacement reserves are to be established as needed for major system replacement if estimated useful life is less than the remaining affordability period.
 - Estimate the remaining economic life of major systems upon project completion.
- Lead-based paint compliance (24 CFR part 35)
- Accessibility
 - Accessibility for persons with disabilities: Fair Housing Act and Americans with Disabilities Act (ADA) for all projects
 - HOME funded projects are also subject to 24 CFR part 8/Section 504 of the Rehabilitation Act of 1973 and other Federal accessibility requirements.
- Compliance with State and Local Building Codes, ordinances, and requirements.
- Broadband Infrastructure (HOME Funded Only)
 - Provide for Broadband Infrastructure unless infeasible.
- A detailed Scope of Work (SOW) with written cost estimates are required. The person who develops the Plans/Specification and/or the SOW is required to sign an Acknowledgement and Certification that they will/have abided by these standards before and after completion of construction.

- A Capital Needs Assessment (CNA) is required for all rehab projects to assist in the development of the SOW.
- Copies of all permits and required inspection reports are to be submitted to Clark County CHO office.
- Procurement Requirements
 - Projects with federal funding are required to have written procurement standards that follow Title 2 Code of Federal Regulations (CFR) 200.318-26.
 - Projects with local (County) CHF funding are required to comply with the following procurement requirements:
 - For the acquisition of goods and services costing more than \$1,000, recipient must develop written procurement policies. The written procurement policies must include the following procedure: All capital equipment purchases must be approved by the County. Any materials or services costing more than \$5,000 that are acquired with CHF Funds, require three (3) quotes from three (3) different vendors and awarded to the most responsible bidder who is lowest in price. Sole source providers are allowable, but the recipient must document the reasoning for not obtaining bids or not awarding to the lowest and most responsible bidder.
 - Recipient must provide the County with the written procurement policy prior to project closing.
- Sustainable Construction
 - Performance and Durability; Strive to rehabilitate/replace with materials to achieve affordable operating costs and minimize repair/replacement frequency.
 - Incorporate renewable energy resources into rehabilitation projects where feasible.
- Manufactured Housing is not covered in these rehabilitation standards, refer to 24 CFR part 3280 and contact the Clark County CHO office for more information.

Applicable Laws and Regulations

When a property is to be rehabilitated with HOME funds, the entire project must be brought up to certain minimum standards. Initially, this means that any existing property conditions that fail to satisfy various federal, state, or local standards for existing property must be identified and addressed by the scope of rehabilitation. These may include but not be limited to:

- HUD’s Uniform Physical Condition Standards (UPCS) and, once fully effective, HUD’s National Standards for the Physical Inspection of Real Estate (NSPIRE);¹
- Applicable state and local codes affirmatively requiring existing properties be maintained to certain minimum standards which may include but not be limited to any local adoption of the International Property Maintenance Code (IPMC), elements of the National Fire Code, and/or other similar codes and ordinances; and
- Fair Housing and Accessibility requirements from Section 504 of the Rehabilitation Act

¹ HUD will publish the specific list of deficiencies, based on NSPIRE, that must be included in a local participating jurisdiction’s rehabilitation standards. As of the initial publication of these standards, HUD has not yet published these deficiencies, and the NSPIRE standards as applied to HOME will not take full effect until October 1, 2024. However, inasmuch as possible in the meantime the County will require that any deficiency from either UPCS or NSPIRE be corrected as part of a project’s SOW.

of 1973, the Fair Housing Amendments Act, and the Americans with Disabilities Act

In addition, once a specific item has been included in the proposed SOW, recipient must complete rehabilitation activities in full compliance with a range of federal, state, and local statutory and regulatory requirements. These may include but are not limited to the following:

- Current Local Building Codes:
 - 2018 Building Administrative Code of Clark County
 - 2017 National Electrical Code
 - 2018 International Existing Building, Fire, Residential and Energy Conservation Codes
 - 2018 Uniform Plumbing and Mechanical Codes
- Life Safety Code
- Environmental Review/NEPA Requirements (HOME funded only)
- Section 106 of the National Historic Preservation Act (HOME funded only)
- Fair Housing and Accessibility Regulations
- Nevada OSHA

In some cases, the codes or standards identified may include both affirmative requirements that certain conditions/deficiencies be addressed and requirements affecting the manner of repair or replacement.

HOME Requirements

All HOME funded rehabilitation projects are required to comply with the following HOME property standards set forth at 24 CFR 92.251(b)(1):

- Life-threatening deficiencies must be addressed immediately if the housing is occupied (24 CFR 92.251(b)(1)(i));
- The useful life of major systems and structural components of the structure are based on:
 - A Capital Needs Assessment (Note: HOME requires a CNA for projects of 26 or more units, but County policy requires one for all rehab projects);
 - Estimates of the remaining useful life upon completion of rehabilitation for other projects (24 CFR 92.251(b)(1)(ii) and (ix));
- Lead-based paint hazard control requirements as specified in 24 CFR 35 (and in particular the rehabilitation standards described in Subpart J 35.900-30) (24 CFR 92.251(b)(1)(iii));
- Compliance with State and local codes, ordinances, and zoning requirements (24 CFR 92.251(b)(1)(vii)) including but not limited to any local adoption of the International Property Maintenance Code (IPMC) or other similar codes or ordinance affirmatively requiring existing properties be maintained to certain minimum standards;
- Minimum deficiencies published by HUD for the HOME program pursuant to 24 CFR 92.251(b)(1)(viii)²;
- Broadband infrastructure (24 CFR 92.251(b)(1)(viii));
- Disaster mitigation requirements of applicable state and local codes;
- Accessibility requirements required for housing in 24 CFR part 8, which implements Section 504 of the Rehabilitation Act of 1973 (29 U. S. C. 794), and Titles II and III of the Americans with

² HUD will publish the specific list of deficiencies, based on the for National Standards for the Physical Inspection of Real Estate (NSPIRE). As of the initial publication of these standards, HUD has not yet published these deficiencies, and the NSPIRE standards as applied to HOME will not take full effect until October 1, 2024.

Disability Act (42 U. S. C. 12131-89), implemented at 28 CFR parts 35 and 36, as applicable. Covered multifamily dwellings, as defined at 24 CFR 100.201, must also meet the design and construction requirements at 24 CFR 100.205, which implements the Fair Housing Act (42 U. S. C. 3601-19). Rehabilitation may include improvements that are not required by regulation or statute that permit use by a person with disabilities.

Best Practice Guidance

The owner will seek guidance and strive to conform to the following standards if financial resources are available for a specific project:

- Energy: ENERGY STAR® Multi-Family v1.1
- HUD “Healthy Homes” Guidelines https://www.hud.gov/sites/documents/DOC_12333.PDF
- USGBC LEED v4.1 Reference Guide for Homes Design and Construction

Applicable Activities

Development activities funded by the Clark County CHF and/or HOME programs that will make use of these standards include:

- Rehabilitation of multifamily housing units that are being substantially rehabilitated to rent to income eligible households.
- Construction required to meet Environmental Review requirements (HOME only funded projects).

Exceptions

On a case-by-case basis, deviations from the minimum requirements of these rehabilitation standards may be permitted with approval of the appropriate local agency and/or the Clark County Community Housing Administrator. However, the County cannot waive any requirements resulting from federal regulations. Recipients of County funding should refer to the Clark County CHO office for any questions or requests for exceptions.

Rehabilitation Standards

1. Health & Safety

Contaminants	
Repair Standard	Minimum Life Five (5) Years
NA	
Replacement Standard	
<p>All materials installed will meet the following standards to minimize the presence of Volatile Organic Compounds (VOC) and Formaldehyde:</p> <ul style="list-style-type: none"> All paints and primers must meet the most recent Green Seal G-11 Environmental Standard. https://greenseal.org/standards/gs-11-paints-coatings-stains-and-sealers All particleboard components will meet ANSI A208.1 for formaldehyde emission limits, or all exposed particleboard edges will be sealed with a low-VOC sealant or have a factory-applied, low-VOC sealant prior to installation. All MDF edges will meet ANSI A208.2 for formaldehyde emission limits, or all exposed MDF edges will be sealed with a low-VOC sealant or have a factory-applied, low-VOC sealant prior to installation. 	
Asbestos	
Inspection Standard	
<p>All residential structures shall have a Mandatory Asbestos Inspection of all suspect Asbestos Containing Building Materials (ACBM) performed by a Licensed Asbestos Inspector. The Inspector is responsible for (1) determining whether ACBM is present in a building, (2) assessing physical characteristics of the ACBM in the building, (3) sampling and analyzing suspect material for asbestos, and (4) communicating their findings in an inspection report to the owner or developer.</p>	
Repair Standard	Minimum Life NA
<p>Non-friable intact Asbestos materials that are not creating a hazard such as cementitious exterior wall shingles or acoustic ceilings may be left intact and painted if appropriate. Asbestos-resilient floor tiles may be labeled as such and covered with underlayment and new resilient flooring.</p>	
Replacement Standard	Minimum Life NA
<p>Friable asbestos components such as boiler or pipe insulation, badly deteriorated cementitious shingles or deteriorated flooring will be removed and, if necessary, replaced with non-hazardous materials. Work must be completed by a properly licensed contractor certified by OSHA for removal of asbestos containing materials. All work to include a clearance report identifying and confirming remediation.</p>	

Lead Based Paint (LBP)	
Inspection Standard	
All properties constructed prior to 1978 shall be inspected by an EPA Licensed Lead Based Paint Inspection Consultant with surface samples submitted to an EPA-accredited lead analytical laboratory and the dust samples must pass a dust wipe test for lead content as per the protocol in the HUD Guidelines.	
Repair Standard	Minimum Life Five (5) years
All rehab to pre-1978 properties must comply with EPA’s Renovation, Repair, and Painting Regulation (RRP) (40 CFR 745) and HUD requirements at 24 CFR 35. When the lesser of (i) the total cost of rehabilitation or (ii) total federal funding in the project is \$25,000 or less per unit, all LBP hazards must be addressed via interim controls, and lead-safe work practices must be followed. All contractors on the site must have appropriately trained workers and supervisors. See: https://www.hud.gov/program_offices/healthy_homes/lbp/hudguidelines	
Replacement Standard	Minimum Life Twenty (20) years
When the lesser of (i) the total cost of rehabilitation or (ii) total federal funding in the project is more than \$25,000 per unit, all LBP hazards must be abated. Inasmuch as possible, the County prefers abatement via the actual removal of LBP over encapsulation or other such means of abatement. Lead-safe work practices must be followed, and only certified abatement contractors are allowed to perform the work.	
Mold	
Repair Standard	Minimum Life NA
Any presence of mold is unacceptable and must be addressed per the US Department of HUD Healthy Homes Program Resources, and EPA’s “A Brief Guide to Mold, Moisture, and Your Home.” If mold covers more than 10 sq. ft., follow the recommendations in EPA’s “Mold Remediation in Schools and Commercial Buildings.” https://www.epa.gov/mold/mold-cleanup-your-home	
Replacement Standard	Minimum Life NA
All carpeting, drywall or other gypsum-based wall coverings or any other non-structural components with mold present will be removed and replaced. Any presence of mold is unacceptable and must be addressed per the US Department of HUD Healthy Homes Program Resources, and EPA’s “A Brief Guide to Mold, Moisture, and Your Home.” If mold covers more than 10 sq. ft., follow the recommendations in EPA’s “A Brief Guide to Mold, Moisture and Your Home” https://www.epa.gov/mold/brief-guide-mold-moisture-and-your-home	

Fire Safety - Egress	
Repair Standard	Minimum Life NA
NA	
Replacement Standard	Minimum Life NA
Egress windows are required in all sleeping and living areas unless other secondary means of escape requirements are met. The minimum dimensions for egress window clear openings are 20" inches wide by 24" inches tall, with a clear opening of 5.7 square feet and sill height shall be not more than 44" inches from the floor. No bedrooms should be created in attics or basements unless Life Safety Code egress requirements are met. Security bars must have functioning inside releases that open freely to meet the window opening requirements.	

Smoke and Carbon Monoxide Detector Alarms	
Inspection Standard	
Smoke detectors shall be placed in each bedroom and within a minimum of 10 feet from all sleeping areas. Carbon monoxide detectors are required in each end of hallways or corridors within a minimum of 10 feet from all sleeping areas if there is an attached garage and/or if the unit has fuel fired/burning appliances.	
Replacement Standard	Minimum Life Five (5) years
Replace if defective or install if not meeting the Inspection Standard. All smoke detectors must be wired (interconnected) to a common alert signal.	

2. Site

Grading	
Repair Standard	Minimum Life Five (5) years
All grading adjacent to the building and for a distance of at least 10 feet away from the building or up to property line whichever is closest will slope away from the structure at a pitch of at least 2% or 1/4 inch per foot. All bare earth will be covered with drought tolerant landscaping per Southern Nevada Water Authority guidelines. https://www.snwa.com/landscapes/designs-and-plans/index.html	
Replacement Standard	N/A

Outbuildings	
Repair Standard	Minimum Life Five (5) years
Unsafe and blighted structures including outbuildings will be demolished and removed if it is not financially feasible to complete the repairs required to make them structurally sound, leak-free, and any lead/asbestos hazards stabilized. All outbuildings must also comply with applicable building and land use codes.	
Replacement Standard	N/A
No outbuilding replacement is permitted in this program unless approved by CHO Administrator. In general, HOME funds may not be used directly to replace accessory or outbuildings.	

Paving And Walks	
Repair Standard	Minimum Life Five (5) years
Essential paving, such as front sidewalks and driveways with minor defects, will be repaired to match. Tripping hazards greater than ¾" must be addressed. Non-essential, highly deteriorated paving, such as sidewalks that are unnecessary, will be removed and appropriately landscaped. All walkways must meet ADA and other Federal accessibility standards.	
Replacement Standard	Minimum Life Twenty (20) years
Un-repairable essential walks and driveways will be replaced with asphalt paving or concrete per Code when financially feasible. All walkways must meet ADA and other Federal accessibility standards.	

Fencing	
Repair Standard	Minimum Life Five (5) years
Fencing on property lines is preferred but must be removed or replaced if a safety hazard exists. If repairs are needed, replacing sections in kind is permissible if the budget permits. When an existing pool is on the property, it must be fenced with self-closing gates as required by Code.	
Replacement Standard	Minimum Life Twenty (20) years
Complete replacement of deteriorated fencing is discouraged and should only be undertaken if the budget permits. If the fence is replaced, it shall be in accordance with the building code of jurisdiction and constructed of non-flammable materials.	

Pool Standards	
Repair Standard	Minimum Life Ten (10) years
In-ground pools shall be free of defects. Pool surfaces shall be patched or in cases of severe deterioration, they may be refinished. The child barrier and or fence surrounding the perimeter of the pool shall be in accordance with the building code of jurisdiction and shall be in addition to any property fencing. HOME funds may not be used for pool repairs, rehabilitation, or replacement. HOME funds may be used to permanently abandon and fill a pool area.	
Replacement Standard	N/A
Pool replacement is not an allowable activity under HOME. Pools deemed not feasible to repair shall have all electrical, plumbing components and equipment terminated and abandoned. The pool shall be demolished in accordance with the building code of jurisdiction. Soil shall be placed and compacted in two (2) feet lifts to attain the average finish grade, and then covered with drought tolerant landscaping per Southern Nevada Water Authority guidelines. HOME funds may not be used for pool repairs, rehabilitation or replacement. HOME funds may be used to permanently abandon and fill a pool area.	

Landscaping	
Repair Standard	Minimum Life Five (5) years
<p>Trees that are dead, dying, or hazardous will be removed. Trees too close to the structure will be trimmed or removed if necessary. Tree removal will include cutting close to the ground, grinding of the stump to 12 inches below the finished grade then covered with drought tolerant landscaping per Southern Nevada Water Authority guidelines. All grading/landscaping must drain away from the foundation. All existing irrigation equipment and components shall be repaired with similar types and brands to ensure compatibility and provide proper watering for each plant. Existing grass is subject to the Replacement Standard as part of any major rehab project.</p>	
Replacement Standard	Minimum Life Ten (10) years
<p>Existing grass is to be removed and replaced with drought tolerant landscaping per Southern Nevada Water Authority guidelines. Trees shall be replaced with a mature height of at least 15', shrubs minimum 5-gallon. Trees and shrubs to native species that are drought resistant, non-invasive, and located a sufficient distance from foundations, sidewalks, driveways, and patios to avoid future damage from root growth and branches touching the structure. Plant materials should carry a minimum 1-year guarantee from the date of planting and shall not be planted until a functioning drip irrigation system is in place, certified by a design professional and in accordance with the Southern Nevada Water Authority recommendations: https://www.snwa.com/landscapes/installing-and-maintaining/index.html</p>	

3. Exterior Building Surfaces

Exterior Cladding	
Repair Standard	Minimum Life Ten (10) years
<p>Exterior finish and trim will be intact and weatherproof. Replacement of damaged sections may include up to 25% of surfaces, textured and blended to match existing. All exterior wood components showing deterioration will be primed and coated with low VOC paint.</p>	
Replacement Standard	Minimum Life Twenty (20) years
<p>For stucco buildings, if 25% or more of the exterior cladding is damaged beyond repair, the entire wall shall receive an approved 1-coat stucco over 2" insulation board system. New exterior siding material will be installed to blend with existing, primed and painted to match with low-VOC materials. Soffit material replacements shall match existing materials and workmanship.</p>	

Exterior Steps and Decks	
Repair Standard	Minimum Life Five (5) years
<p>Steps, stairways, landings, and porch decks will be structurally sound, reasonably level, with smooth and even surfaces. Repairs will match existing materials,</p>	
Replacement Standard	Minimum Life Twenty (20) years
<p>Any replacement steps, decks, or stoops shall be of minimum functional size and design per code requirements.</p>	

Exterior Railings	
Repair Standard	Minimum Life Five (5) years
Existing handrails will be structurally sound. Guard rails are required on any accessible area with a walking surface over 30" above the adjacent ground level. Sound railings may be repaired if it is possible to maintain the existing style.	
Replacement Standard	Minimum Life Twenty (20) years
Handrails will be present on one side of all interior and exterior steps or stairways with more than two risers and around porches or platforms over 30" above the adjacent ground level and are to be installed to applicable code and ADA requirements.	

4. Foundations & Structure

Firewalls	
Repair Standard	Minimum Life Five (5) years
Party walls will be maintained without cracks and plaster/drywall deterioration. Needed repairs are to be covered with 5/8" type X gypsum, glued and screwed to structure Per Code and any applicable UL Assembly.	
Replacement Standard	Minimum Life Twenty (20) years
When frame walls and floors adjoining other dwellings are gutted, new wall finish installations will conform to local requirements for fire ratings Per Code and any applicable UL Assembly.	

Foundations	
Repair Standard	Minimum Life (15) years
Foundations will be repaired to be sound, reasonably level, and free from movement. Repairs of any significant damage or deterioration will require evaluation and repair recommendations by an appropriately licensed Civil or Structural Engineer and to be in accordance with the building code of jurisdiction.	
Replacement Standard	Minimum Life Forty (40) yrs.
Foundation replacements shall be in accordance with the building code of jurisdiction.	

Structural Walls	
Repair Standard	Minimum Life (15) years
Structural framing and masonry will be free from visible deterioration, rot, or serious termite damage, and be adequately sized for current loads. Prior to rehab, all sagging floor joists or rafters will require evaluation and repair recommendations by an appropriately licensed Civil or Structural Engineer and to be in accordance with the building code of jurisdiction.	
Replacement Standard	Minimum Life Forty (40) yrs.
New structural walls will be installed per Building Code. All exterior walls that are part of the building envelope (the air barrier and thermal barrier separating the conditioned space from the non-conditioned space) will be insulated with a minimum R-19 insulation and sheathed to the currently adopted IECC Energy Code and the building code of jurisdiction.	

5. Windows and Doors

Interior Doors	
Repair Standard	Minimum Life Five (5) years
Entrance doors in buildings with interior hallways that provide access to dwelling units shall meet the requirements of exterior doors, except the Energy Star (R-8) rating is not required if the interior hallways are in conditioned space. Bedrooms and Bathrooms shall have operating doors and functioning locksets. Bathrooms are to have privacy lock sets; all other interior doors shall have passage lock sets. All keyed locksets on doors inside the dwelling unit shall be removed. Repair and reuse existing doors when possible.	
Replacement Standard	Minimum Life (15) years
Pre-Hung hollow-core wood or composite product consistent with the style of existing doors, painted to match with a matching passage lock set at a minimum, upgrade if budget permits.	

Windows & Sliding Glass Doors	
Repair Standard	Minimum Life (10) Years
All windows shall operate, and remain in an open position when placed there, lock when closed and release when opened. Sliding glass doors shall roll freely and have locking mechanisms. Cracked or broken glazing must be replaced. Windows or doors with single-pane glazing should be retrofitted to dual-pane Energy Star rated units if the budget permits. Any security bars or similar must have a functioning release from the inside to allow for emergency egress and be compliant with the building code of jurisdiction.	
Replacement Standard	Minimum Life Twenty (20) years
Windows and sliding glass doors that are not repairable must be replaced and will meet the ENERGY STAR standard for this geographic region. http://www.energystar.gov/index.cfm?c=windows_doors.pr_anat_window New windows can be retrofit style and are to have vinyl, composite, or similar frames and meet the minimum performance standard of \leq U-value 0.30 and solar heat gain coefficient (SHGC) of 0.25; the Energy Star requirement for the South-Central Climate Zone. Windows are long-life items tied to operating efficiency and occupant comfort. Prioritize exceeding this minimum standard if within budget constraints.	

Exterior Doors	
Repair Standard	Minimum Life Five (5) years
Exterior doors will be solid, weather-stripped and will operate smoothly. They will include a peep site, a dead bolt, and an entrance lever lock set with dead bolt all keyed alike.	
Replacement Standard	Minimum Life Twenty (20) years
Replacement exterior doors at the front of the property are to cosmetically match others in the building, be Energy Star (R-8) rated, steel or fiberglass solid core construction with a peep hole and locksets/deadbolts keyed alike. Garage/house doors shall be 20-minute fire rated with self-closing hinges per the code of jurisdiction.	

Garage Door(s)	
Repair Standard	Minimum Life Five (5) years
Garage door(s) must operate smoothly, close tight against the floor and be lockable. Repaired panels must be painted to match the rest of the door.	
Replacement Standard	Minimum Life Twenty (20) years
Garage door(s) shall be metal roll-up, insulated and professionally installed.	

6. Roofing

Flat and Low-Slope Roofing	
Repair Standard	Minimum Life: Five (5) Years
Repair when cost is less than or equal to 30% of total replacement cost. Built-up roofing, flashing and accessories shall be repaired if a 5-year leak free warranty is available from a certified roofing company.	

Replacement Standard	Minimum Life: Fifteen (15) Years
The most cost-effective roof that complies with current building and energy code specifications and a minimum warranty of 15-years. The roof shall comply with applicable energy and building codes. Ballasted EPDM roofing with a light colored, reflective coating is preferred if within budget. https://www.energystar.gov/products/building_products/roof_products/other_types_roofing_that_can_save_energy Check for tax credits or rebates available for energy efficient roofing systems.	
Replacement Criteria	Maximum Life Cycle: Ten (10) Years
Roof leaks with evidence of severe deterioration making repairs infeasible to be warranted for Five (5) Years. Using Ten (10) years as a maximum life cycle for an existing flat/low-slope roof, if there is evidence of deterioration and/or failed roof coverings, and there is less than 5-years left in the life cycle or if the repair cost exceeds 30% of total replacement cost, then the roof shall be replaced.	

Pitched Roofs	
Repair Standard	Minimum Life: Five (5) Years
Missing and leaking shingles or tiles and flashing will be repaired on otherwise functional roofs. Concrete tile and metal roofs will be repaired when possible.	
Replacement Standard	Minimum Life: Thirty (30) Years
All existing shingle roofs shall be stripped, and all wood substrates shall be re-nailed and brought up to current codes. Fiberglass Laminated Dimensional/Architectural class “A” Shingle, with a minimum prorated 40-year warranty with a continuous ridge vent will be installed over 30lb. felt with new 3” galvanized steel, aluminum, or copper drip edge, valleys, flashings, and transitions. Plumbing stacks shall have code approved boots/flashing. Secondary waterproofing where specified shall be installed according to Manufacture’s installation recommendations. If a concrete tile roof fails for whatever reason, it shall be replaced with like materials.	
Replacement Criteria	Maximum Life Cycle: Twenty (20) Years
Roof leaks with evidence of severe deterioration making repairs infeasible to be warrantied for Five (5) Years. Using Twenty (20) years as a maximum life cycle for an existing pitched roof with shingles or concrete tiles, if there is evidence of deterioration and/or failed roof coverings, and there is less than 5 years left in the life cycle, then the roof shall be replaced.	

Gutters and Downspouts	
Repair Standard	Minimum Life Five (5) years
Gutters and downspouts must be in good repair, leak free, and collect storm water from all lower roof edges that extend over exterior doors and entrances. Concrete splash blocks will be installed to move water away from landings. The system must move all storm water away from the doors and the building to prevent water from entering the structure. In addition to positive drainage away from the building’s entrances, downspouts will be a minimum of 3 feet away from the foundation whenever there is a history of water problems.	
Replacement Standard	
Gutters shall be 6” Seamless with 4” downspouts when replaced and shall be designed to deflect all rainwater away from the doors, landings, and the building to prevent water from entering the structure. Fastening is to be with inside hangers. Spikes and ferrules are not acceptable.	

7. Insulation and Ventilation

Insulation	
Repair Standard	Minimum Life NA
Gaps and holes in the thermal boundary shall be sealed where access permits. Deteriorated or missing ceiling batts shall be replaced with similar materials and the attic blown with fiberglass or cellulose to achieve the minimum of R-38 in the attic. Attic access panels must be insulated with weatherstripping per the energy code.	
Replacement Standard	Minimum Life Twenty (20) years
Remove existing insulation, thoroughly air seal the thermal boundary, and re-insulate the attic to a minimum of R38 with soffit baffles installed when there are soffit vents to maintain ventilation at the eaves. All exterior frame walls opened during renovation work shall be thoroughly air-sealed and the cavities insulated with fiberglass batts or preferably damp spray cellulose to R13 for 2x4 framing and R19 for 2x6 framing or to local Building code. Whenever financially feasible, 1"-2" inch foam board shall be added under new siding or stucco.	

Kitchen Ventilation	
Repair Standard	N/A
Replace if kitchen exhaust fan is not functioning properly.	
Replacement Standard	Minimum Life: Five (5) Years
All kitchens must have Energy Star Certified hoods or exhaust fans operating at a maximum of 20 sones and producing a minimum of 150 CFM after accounting for ducting losses. All ductwork will be heavy gauge galvanized metal, airtight with mastic-sealed seams (no duct tape). Mechanical ventilation exhaust shall exit to the outside through the roof or through the soffit if possible (approval of CHO staff required if not possible or feasible).	

Roof Ventilation	
Repair Standard	Minimum Life Five (5) years
Attics should have a minimum of 1 square foot of free venting every 300 SF of area directly under the roof. Inspect and repair baffles as necessary to facilitate ventilation.	
Replacement Standard	Minimum Life: Fifteen (15) Years
The venting requirement is the same as with the Repair Standard above with a strong preference for a combination of ridge vents and soffit vents. Soffit baffles are to be installed when there are soffit vents to maintain ventilation at the eaves.	

Bath Ventilation	
Repair Standard	Minimum Life NA
Replace if bath exhaust fan is not functioning properly.	
Replacement Standard	Minimum Life Ten (10) years
Each bathroom must have an Energy Star Certified bath fan, ducted to the exterior, 70 CFM, maximum 20 sones with a separate switch or humidistat.	

Air Infiltration	
Repair Standard	Minimum Life NA
Seal all visible cracks, holes or openings to the outside with appropriate material such as gun foam, caulking, or similar.	
Replacement Standard	Minimum Life Ten (10) years
Replace all damaged weatherstripping around exterior doors and attic hatches. Seal all visible cracks, holes or openings to the outside with appropriate material such as gun foam, caulking or similar. If possible, use a blower door test to reduce air leakage to 5 air changes per hour or less per 2018 IECC.	

8. Interior Standards

Interior Walls and Ceilings	
Repair Standard	Minimum Life Three (3) years
Holes, cracks, and/or deteriorated drywall shall be repaired, textured, and painted to match with low VOC materials. Minor damage to door casings and baseboards may be repaired and painted to match with low VOC materials. Paint touch-up is allowed when it can be matched to the existing paint. Repairs are allowed to kitchen backsplashes and bathroom wainscot if the materials can be matched.	
Replacement Standard	Minimum Life Ten (10) years
When necessary, surface damage shall be replaced by ½" gypsum board on walls and 5/8" on ceilings, textured and painted to match with low VOC materials. Fire-rated assemblies will be specified on a project-by-project basis as required by local codes. Major damage to door casings and baseboards shall be replaced with like size/profile of wood or composite material and painted to match with low VOC paint. Repaint the entire room and/or ceilings where paint cannot be matched. Kitchen areas and baths shall be painted with washable semi-gloss low VOC paint. Replace kitchen backsplashes and bathroom wainscoting, if the materials cannot be matched, with durable surfaces such as ceramic tile or solid surface materials. Install water resistant drywall or other similar product in wet areas.	

Flooring	
Repair Standard	Minimum Life Three (3) years
Flooring repairs are allowed if the materials can be matched and the bathroom, kitchen, and other water-susceptible floor areas are covered with water-resistant flooring that is free from tears or tripping hazards.	
Replacement Standard	Minimum Life Fifteen (15) years
Entryways, bathroom and kitchen area floors shall receive durable covering such as vinyl plank flooring with a minimum 15-year warranty, ceramic tile, or similar. Continue this durable flooring throughout the unit if the budget permits. Tile shall have code approved substrate over wood framed floors, laid in thin-set mortar, grouted, and sealed. Heavy flooring such as ceramic tile must be evaluated for structural load for all but slab on grade ground floors. All materials and adhesives shall be low-VOC to minimize off-gassing. Rooms other than kitchens or bath floors may be finished with carpet and associated products that are Carpet and Rug Institute's Green Label certified but may require higher deposits to replacement reserves as a result of the shorter useful life of carpet in multifamily units.	

Closets	
Repair Standard	Minimum Life Five (5) years
Existing closets will be maintained in good repair; existing closets with a minimum depth of 2 feet will have a shelf, clothes rod, and door.	
Replacement Standard	
New closets may be created if there is a significant lack of storage space and the budget permits. New closets will have a minimum depth of 2 feet and include a shelf, clothes rod, and door.	

Kitchen Cabinets and Countertop	
Repair Standard	Minimum Life Five (5) years
Existing cabinets with hardwood doors and face frames may be repaired if in good condition. All cabinets must be sound, cleanable, and free from water damage. Water damage can be repaired with new wood if otherwise in good condition. Drawer hardware may be replaced to ensure smooth operation and must have stops to ensure they cannot pull all the way out.	
Replacement Standard	Minimum Life Ten (10) years
Where practicable there will be a minimum of 10 lineal feet of countertop with corresponding base and wall cabinets, and a dishwasher. At least one drawer base (12" or 15") will be included in new cabinetry. New cabinets shall be constructed with a solid wood frame on the doors and cabinet face. The box, including the floor, ceiling, ends, and back panels, shall be comprised of durable materials. Shelves may be of composite material, and finish covering may be "manufacturer pre-finished" wood veneer or plastic laminate. Cabinets shall include countertops of long lasting, durable materials such as laminate, ceramic tile, or solid surface if the budget allows. Cabinets must also have quality drawer rails with stops, hinges with door and drawer pulls. Backsplash shall extend from the countertop up the wall at least 4" and preferably to the bottom of the wall cabinets wherever feasible. Countertop and back splash shall be made of durable, washable material such as ceramic tile.	

9. Electric

Ground Fault Circuit Interrupters	
Repair Standard	N/A
All improperly functioning GFCIs must be replaced.	
Replacement Standard	Minimum Life Ten (10) years
All GFCIs must be tested, and non-functioning or improperly functioning ones must be replaced with new ones of the correct amperage. Kitchen receptacles, all bath receptacles and at least one exterior receptacle must be protected by GFCIs to current electrical code requirements. Exterior receptacles shall have weatherproof enclosure boxes.	

Lighting	
Repair Standard	N/A
Replace all incandescent and CFL bulbs with LED bulbs of sufficient lumens for each area. All halls, areas to cross to other rooms and stairways must be well lit and controlled by 3-way switches to current electrical code requirements.	
Replacement Standard	Minimum Life Five (5) years
Replace any cracked, damaged, or inoperable fixtures with properly switched ENERGY STAR Certified light fixtures or, as appropriate, ceiling fans using LED lighting technology. All ceiling fans must be wired with separate switches for the light and fan components so that residents need not use pull chains.	

Kitchen Electric Distribution	
Repair Standard	N/A
Repair or replace deteriorated, cracked or otherwise damaged switches and receptacles as well as switch plates and covers.	
Replacement Standard	Minimum Life Twenty (20) years
Permanently installed or proposed stoves, refrigerators, freezers, dishwashers and disposals, washers and dryers will have separate circuits sized to N.E.C. Two separate GFCI protected 20-amp counter circuits are required with each kitchen area. Any new electrical work must be properly permitted and installed to current electrical code requirements by a licensed electrician.	

Interior Electric Distribution	
Repair Standard	N/A
Repair or replace deteriorated, cracked or otherwise damaged switches and receptacles as well as switch plates and covers.	

Replacement Standard	Minimum Life Twenty (20) years
All damaged or non-functioning switches and receptacles, as well as cracked or damaged cover plates, must be replaced. When a room's wall finishes are removed, the affected walls will be rewired to meet the latest version of the National Electric Code and local codes by jurisdiction.	

Service and Panel	
Repair Standard	Minimum Life Ten (10) years
Distribution panels will have a main disconnect, at least 10 circuit-breaker-protected circuits, a 100-amp minimum capacity and be adequate to safely supply existing and proposed electrical demands in compliance with current electrical code requirements. All repairs to be made by a licensed electrician.	
Replacement Standard	Minimum Life Twenty (20) years
150-amp service with a main disconnect panel containing at least 30 circuit breaker positions. to meet the latest version of the National Electric Code and local codes by jurisdiction.	

10. Plumbing System

Drain, Waste, Vent Lines	
Repair Standard	N/A
Waste and vent lines that leak and do not flow freely must be repaired.	
Replacement Standard	Minimum Life Twenty (20) years
When walls are removed exposing vent and waste lines, they are to be retrofitted in accordance with applicable building and plumbing codes.	

Plumbing Fixtures	
Repair Standard	N/A
All fixtures and faucets will have working, drip-free components. Toilets with greater than a 1.6 GPF rating will retrofitted to allow a maximum of 1.28 gallons per flush. Faucets shall be retrofitted with low flow aerators; kitchen faucets to have a maximum flow rate of 2.2 gallons per minute (GPM) and bath faucets to a maximum flow rate of 1.5 GPM. Deteriorated caulking in all wet areas shall be stripped and recaulked.	
Replacement Standard	Minimum Life Twenty (20) years
All fixtures will have brass shut off valves. All fixture replacements shall be WaterSense labeled products and follow the Southern Nevada Water District's water conservation recommendations of a maximum flow rate of 2.2 GPM for kitchen or laundry sinks and 1.5 GPM for bathrooms. https://www.snwa.com/importance-of-conservation/indoor-conservation-tips/index.html Bathroom and kitchen faucets should be single lever and come with a "lifetime" limited warranty. Showerheads to use <2.5 gallons per minute with a "lifetime" limited warranty. Toilets to be low flow (1.28 gallons per flush). Kitchens to include double bowl stainless steel or porcelain/cast-iron sinks with a minimum depth of 8", sealed with caulking. Units with 2 or more baths shall have at least 1 with a walk-in shower, preferably a single piece caulkless fiberglass unit.	

Plumbing Minimum Equipment	
Repair Standard	N/A
Existing equipment will be repaired to ensure leak-free function as intended.	
Replacement Standard	Minimum Life Twenty (20) years
Every dwelling unit will have a minimum of one single bowl sink with hot and cold running water in the kitchen and at least one bathroom containing a vanity with a sink, and a shower/tub unit, both with hot and cold running water, and a toilet. Senior and/or supportive housing units should have an oversized shower with an integrated seat and grab bars in lieu of tubs.	

Water Heaters	
Repair Standard	Minimum Life: Seven (7) Years
Each housing unit will have a working water heater less than 3 years old with a minimum capacity of 40 gallons. Water heaters more than 3-years old may be repaired if the repair cost is less than 50% of cost new.	
Replacement Standard	Minimum Life: Ten (10) Years
All units will have a minimum 30-gallon water heater (Studio & 1 BR units) or a 40-gallon water heater (2-3 BR units) with a 10-year warranty installed in accordance with applicable building and plumbing codes. Water heaters more than five years old may be replaced if not cost effective to repair. New water heaters must be ENERGY STAR Certified and rated with a ≥ 0.67 Energy Factor for natural gas replacements and ≥ 2.2 Energy Factor for tank electric replacements. Tankless water heaters may be installed if cost beneficial and ENERGY STAR Certified. Energy efficient electric water heater replacements are preferred over gas replacements.	
Replacement Criteria	Maximum Life Cycle: Ten (10) Years
Using ten (10) years as a maximum life cycle for a water heater, an existing water heater shall be replaced if it is within three (3) years of the end of its life cycle.	

Water Supply	
Repair Standard	Minimum Life Ten 10 years
The main shut off valve must be operable and completely stop the flow of water to the building. All fixtures must be leak-free and deliver sufficient cold water and, where applicable, hot water.	
Replacement Standard	
The main shut off valve must be operable and completely stop the flow of water to the building and should be replaced if it does not. Lead and galvanized pipe that is part of the water service or the distribution system will be replaced with copper, cpvc, PEX, or similar. When walls are removed exposing supply lines, they are to be retrofitted in accordance with applicable building and plumbing codes. All fixtures will have brass shut off valves. All fixture replacements shall be WaterSense labeled products and follow the Southern Nevada Water District's water conservation recommendations. https://www.snwa.com/importance-of-conservation/indoor-conservation-tips/index.html	

11. HVAC

Air Conditioning Heating (HVAC)	
Repair Standard	Minimum Life: Five (5) Years
<p>Existing central air conditioning systems will be inspected, serviced, and repaired/refurbished to operate safely if within the Replacement Criteria.</p> <p>Non-functioning, non-repairable air conditioners will be removed, drained of all CFCs, and replaced per the Replacement Standard.</p> <p>The HVAC distribution system will be inspected and sealed to achieve the minimum leakage under the Replacement Standard. Duct testing is required to verify IECC Code compliance when any part of the HVAC system is in unconditioned space such as an attic or crawlspace.</p>	
Replacement Standard	Minimum Life: Twenty (20) Years
HVAC System Sizing Air Source Heat Pump Conventional Forced Air Furnace Split System Central A/C Thermostat HVAC System Leakage Return Air Balancing System	Use ACCA Manual J/S or equivalent Climate Zone 3: ≥ 15.2 SEER2; (16 SEER), 8.8 HSPF Climate Zone 3: ≥ 90 AFUE Climate Zone 3: ≥ 15.2 SEER2 (16 SEER) Programmable < 4 cfm or less/100 sq ft living space leakage to outside < 8 cfm or less/100 sq ft living space total leakage In dwelling units with ≥ 2 bedrooms, pressure difference with bedroom door closed and air handler running is < 3 pascals
<p>Furnish and install properly sized equipment to the above specifications. Installation shall include but not be limited to a condensing unit, air handler, secondary drain pan when installed inside the attic, seven (7) day programmable thermostat, and repair and sealing of existing A/C duct, registers, and air return to meet the air leakage requirement. If there exists a duct system in good condition whose design will accommodate the replacement air handler, then it may remain and be reused. If no ducts exist, then install insulated ducts to a minimum of R-7 and sealed with mastic (not tape) to meet the air leakage requirement. All installation is to be permitted and installed according to local building and mechanical codes.</p>	
Replacement Criteria	Maximum Life Cycle: Twenty (20) Years
<p>Using twenty (20) years as a maximum life cycle for a pre-2006 central air conditioning system, an existing central air conditioning system manufactured prior to 2006, shall be replaced if it is within three (3) years of the end of its life cycle. Replace system if repair cost is greater than 25% of cost new for 15-year or older systems, and 50% for 10-year or older systems that are outside covered warranties, and/or uses a refrigerant that is no longer readily available and/or has a SEER rating less than 13. HVAC systems are long-life items tied to operating efficiency and occupant comfort, prioritize exceeding this minimum standard if within budget constraints.</p>	

Chimney Repair & Combustion Ventilation	
Repair Standard	Minimum Life N/A
Unused chimneys will be removed to below the roof line wherever roofing is replaced. Unsound chimneys will be repaired or removed. When chimneys must be used for combustion ventilation, they will be relined.	
Replacement Standard	Minimum Life N/A
The creation of new flues is not recommended in this program. The use of high efficiency closed combustion appliances is recommended to avoid the need for new flues. Replacement furnace flues, when required, will be metal double- or triple-walled as recommended by the furnace manufacturer and per codes of jurisdiction.	

12. Appliances

Kitchen Appliances	
Repair Standard	Minimum Remaining Life Three (3) years
All units will have a working and cleanable range and refrigerator. If there is an existing dishwasher in working and cleanable condition, it may be retained with minor repairs.	
Replacement Standard	Minimum Life: Ten (10) Years
Replacement kitchen appliances other than ranges and ovens shall be new ENERGY STAR Certified and labeled appliances where applicable. New cooking ranges may be electric or gas, though electric is preferred. Washers, dryers, microwaves, wall ovens and range hoods may also be replaced; clothes washers and dryers, dishwashers and refrigerators to be ENERGY STAR Certified.	
Replacement Criteria	Maximum Life Cycle: Ten (10) Years
Using Ten (10) years as a maximum life cycle for ranges, refrigerators, dishwashers, disposals, Washers, Dryers, Microwaves and Wall Ovens, an existing appliance may be replaced if it is within Three (3) years of the end of its life cycle or if the estimated repair cost is within 50% of the cost new. Age, condition, and efficiency should also be considered when evaluate repair vs. replacement.	

13. Broadband Infrastructure

Broadband Infrastructure (Substantial rehabilitation of a building with more than 4 rental units)	
Rehabilitation Standard	
<p>For a substantial rehabilitation project of a building with more than 4 rental units, any substantial rehabilitation, as defined in 24 CFR 5.100, must provide for installation of broadband infrastructure, as this term is also defined in 24 CFR 5.100, except where the participating jurisdiction determines and, in accordance with §92.508(a)(3)(iv), documents the determination that:</p> <ul style="list-style-type: none"> (A) The location of the substantial rehabilitation makes installation of broadband infrastructure infeasible; (B) The cost of installing broadband infrastructure would result in a fundamental alteration in its program or activity or in an undue financial burden; or (C) The structure of the housing to be substantially rehabilitated makes installation of broadband infrastructure infeasible. 	

Exhibit #1-Rehab Acknowledgement and Certification

This form MUST be submitted to CHO Staff prior to the close of funding

These Rehab Standards are to be utilized in developing the Plans/Specifications and/or the Scope of Work (SOW). Recipients are also required to provide written procurement standards which will be followed when sourcing contracting services, labor and materials. They are also required to complete a Capital Needs Assessment (CNA) that must be approved by the Community Housing Office (CHO) staff. The person who develops the Plans/Specification and/or the SOW is required to sign this Acknowledgement and Certification that they have abided by these Rehab Standards before and after completion of construction.

Complete the following project information:

Project Name: _____
Recipient's Name: _____
Anticipated Start Date: _____
Anticipated Completion Date: _____

Check all boxes that apply:

- 1. Written Procurement Standards have been provided to CHO staff and approved.
- 2. A CNA has been provided to CHO staff and approved.
- 3. The CNA was completed by the Recipient's internal staff.
- 4. The CNA was completed by a licensed professional.
- 5. The SOW has been completed by the Recipient's internal staff, approved by CHO staff, and will be signing the before and after construction Acknowledgement and Certification.
- 6. The Plans/Specifications and the SOW have been completed by a licensed professional who will be signing the before and after construction Acknowledgement and Certification.

Signature Required Prior to Close of Funding:

The undersigned hereby acknowledges and certifies that they have prepared the rehab Plans/Specifications and/or the Scope of Work (SOW) based on an approved Capital Needs Assessment (CNA) and will follow the approved procurement requirements:

Authorized Signature

Legal Name of Firm/Employer & Title/Position

Name of Signatory (Print or Type)

Telephone Number

Email Address

Address of Firm

Professional Designation/Number (if applicable)

City, State

Zip Code

Exhibit #1-Rehab Acknowledgement and Certification (Continued)

Signature Required after Completion of Construction (Project Close-Out Procedure):

The undersigned hereby acknowledges and certifies that they have completed the rehab project in accordance with the approved Plans/Specifications and/or the Scope of Work (SOW) that was based on the approved Capital Needs Assessment (CNA), and followed the appropriate procurement requirements:

_____	_____	
Authorized Signature	Legal Name of Firm/Employer & Title/Position	
_____	_____	_____
Name of Signatory (Print or Type)	Telephone Number	Email Address
_____	_____	
Address of Firm	Professional Designation/Number (if applicable)	
_____	_____	
City, State	Zip Code	