



Missouri Housing
Development Commission

MHDC

HOME Repair Opportunity (HeRO)

**DESK GUIDE
2022**



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INTRODUCTION

The HOME Investment Partnerships (HOME) program was authorized by [Title II of the Cranston-Gonzalez National Affordable Housing Act](#). The HOME program provides grants to states to be used in partnership with local entities to fund a wide range of activities that build, buy, finance, and rehabilitate affordable housing or to fund direct rental assistance to people with low incomes. The HOME program is administered through the U.S. Department of Housing and Urban Development (HUD) and funds are awarded annually as formula grants to states or local jurisdictions.

Missouri Housing Development Commission (MHDC) is the recipient of HOME funds for Missouri and uses HOME funds in a variety of methods and for a variety of programs. One of these programs established by MHDC is the Home Repair Opportunity (HeRO) program.

HeRO provides assistance to low- and moderate-income homeowners who lack the resources to make necessary repairs to their homes located in non-metropolitan and disaster areas of Missouri. MHDC partners with community nonprofit organizations, regional planning commissions, and municipalities that operate the program in various regions throughout the state. Funding awards are made through a competitive application process. An agency or organization receiving HOME funds for the purpose of administering the HeRO program is considered a Sub-Grantee of HOME funding and is subject to all pertinent federal regulations. The Sub-Grantee must enter into a grant agreement with MHDC and comply with all provisions of such agreement. Additionally, the Sub-Grantee must comply with all regulations governing the administration of HOME funds, including but not limited to [24 CFR Part 92](#).

This document is intended to provide guidance in the way that MHDC will administer HOME funding through the HeRO program and how the day-to-day management and implementation of the HeRO program will function. MHDC reserves the right to modify or update this document periodically in its sole and absolute discretion. MHDC reserves the right to update the [HeRO webpage](#), and provide additional trainings and forums as necessary. However, **it remains the responsibility of each Sub-Grantee to ensure that they are up to date on these changes**. Failing to comply with updated regulations may result in an organization being found out of compliance.

Contact Information

Below is the Missouri Housing Development Commission HeRO contact. Please direct all questions, concerns, updates, and submission of documents to the HeRO Grant Administrator. Payment Requests shall be submitted electronically by completing and uploading the documents to your grant in the Grant Interface software.

Please direct questions, concerns, and updates to:

Marquette Broome-Walker

HeRO Grant Administrator

Missouri Housing Development Commission

920 Main, Suite 1400

Kansas City, MO 64105

(816) 648-0543

m.broome-walker@mhdc.com

Please submit payment forms electronically:

<https://www.grantinterface.com/Home/Logon?urlkey=mhdc>

Website

All information and forms pertaining to MHDC's HeRO program can be found on the following website:

<https://mhdc.com/programs/hud-programs/home/>

PROGRAM REQUIREMENTS

Applicants and Sub-Grantee Eligibility

A Sub-Grantee is a nonprofit agency.

Any organization or applicant that is out of compliance, disqualified, suspended, or debarred from any program administered by MHDC is not eligible to participate in the HeRO program as a Sub-Grantee. Additionally, any organization or applicant that is under debarment, proposed debarment, or suspension by a federal agency is also not eligible for participation in the HeRO program.

Applicants must demonstrate the capability and expertise necessary to administer a rehabilitation program. An eligible Sub-Grantee will:

- Have previously acted as a recipient or sub recipient of HOME funds used for the purpose of single family rehabilitation activity;
- Have previously acted as a Sub-Grantee of MHDC in administering the HeRO program;
- Have previously acted as a Grantee of MHDC in administering a Missouri Housing Trust Fund (MHTF) grant provided for the purpose of home repair; or
- Be able to demonstrate that at least one staff member is able to work as the primary administrator of the HeRO program and such staff member has at least three years of direct experience in project management or construction and rehabilitation and such staff member has at least one year of experience in administering a program involving state or federal funding.

Applicants must be authorized to conduct business in the state of Missouri and be in good standing.

Religious or faith-based organizations are eligible on the same basis as any other organization. Organizations that are directly funded through the HeRO program may not engage in inherently religious activities, such as worship, religious instruction, or proselytization, as part of or as a condition of the assistance funded. If an organization conducts such activities, the activities must be offered separately, in time or location, from assistance funded and participation must be voluntary. An organization shall not discriminate against a program beneficiary or prospective program beneficiary on the basis of religion or religious belief.

Applicants that do not have a written program plan documenting the organization's intended implementation of the HeRO program are not eligible and will not be considered.

Conflict of Interest

In the procurement of property and services by Sub-Grantees, the conflict of interest provisions at [2 CFR Part 200.112](#) applies. These regulations require Sub-Grantees to maintain written standards governing the performance of their employees engaged in awarding and administering contracts. At a minimum,

these standards must:

1. Require that no employee, officer, or agent of the Sub-Grantee shall participate in the selection, award or administration of a contract if a conflict of interest, either real or apparent, would be involved;
2. Require that Sub-Grantee's employees, officers and agents not accept gratuities, favors or anything of monetary value from contractors, potential contractors or parties to sub-agreements; and
3. Stipulate provisions for penalties, sanctions or other disciplinary actions for violations of standards.

A conflict would arise when any of the following has a financial or other interest in an organization or individual selected for the award:

1. An employee, agent or officer of the Sub-Grantee;
2. Any member of the employee's, agent's, or officer's family;
3. An employee's agent's or officer's partner; or
4. An organization that employs or is about employ an employee, agent or officer of the Sub-Grantee.

In cases not covered by 24 CFR 85.36 and 24 CFR 84.42, the HOME regulations at 24 CFR 92.356 governing conflict of interest apply. These provisions cover employees, agents, consultants, officers and elected or appointed officials of the Sub-Grantee. The HOME regulations state that no person covered who exercises or has exercised any functions or responsibilities with respect to HOME activities or who is in a position to participate in decisions or gain inside information may obtain a financial interest or benefit from a HOME activity or have an interest in any contract, subcontract, or agreement for themselves or for persons with business or family ties. This requirement applies to persons during their tenure and for one year after leaving the Sub-Grantee entity.

Sub-Grantee Program Plan

All Sub-Grantees are required to develop written policies and procedures documenting the organization's intended implementation of the HeRO program. The written policies and procedures must contain information that addresses the following:

Introduction

Provide a statement of goals and objectives, a basic overview of the program, and a listing of counties that the Sub-Grantee intends to serve.

Eligibility Requirements

Provide a clear explanation of requirements for household participation. The policies and procedures must include accurate information regarding ownership requirements, property eligibility, and income eligibility including methods of calculation. Include a list and description of all supporting documents or

which the Sub-Grantee will use when determining eligibility.

Application and Selection Process

Provide information regarding how a household is required to submit an application and clearly describe a fair and equitable process by which households will be selected for participation. Indicate whether or not a waiting list will be used and, if so, include a description of how it will be administered.

Rehabilitation Activities

Describe the intended rehabilitation activities to be undertaken. The Sub-Grantee's program may include general rehabilitation or may be more narrowly focused to offer specific activities, such as construction to provide accessibility. Include the minimum and maximum amount of HeRO funding that will be used in connection with a project.

Lead Hazard Reduction and Environmental Clearance

Include the process by which the Sub-Grantee will comply with the HUD lead hazard reduction requirements¹ for pre-1978 homes and environmental regulations.

Marketing

Sub-Grantees must adopt and implement a HeRO program marketing plan that will meet all Fair Housing requirements, adequately publicize the program to interested parties in potentially qualified households, and affirmatively market the program to minorities, persons with disabilities, and other protected groups². The Sub-Grantee must include information regarding how the program will be publicized and describe efforts to market the program to underserved populations and those least likely to apply so that they will have the opportunity to become aware of the program and can participate. This section must include a statement that the Sub-Grantee will follow the [Fair Housing Act](#) which prohibits discrimination on the basis of race, religion, color, national origin, sex, familial status, or a person with a disability. This section must also include a requirement that all marketing materials will include use of the appropriate Equal Housing Opportunity logotype.

Minimum Standards

Include complete and detailed written rehabilitation standards. Minimum rehabilitation standards may include higher quality or workmanship than is required by MHDC's standards, but may not be of lesser quality or workmanship. Items of a luxurious nature are not permitted.

Appraisals, Inspections, Work Write-Ups, and Bidding Procedures

Include the process for soliciting or selecting an appraiser and for completing appraisals. Additionally, the process for soliciting or selecting an inspector and for completing initial, interim and final property inspections should be included. Also, there should be a process for completing work write-ups, cost estimates, and bidding procedures.

¹ See [24 CFR Part 35 Subpart B](#) for specific regulations

² See [24 CFR Part 5 Subpart A](#) for more details

Contractor Qualifications and Procedures

Include the qualifications the Sub-Grantee will require for contractor participation including MHDC approval requirements, insurance requirements, licensing and certification requirements, references, and any other requirements as the Sub-Grantee deems appropriate. The contractor qualifications may exceed MHDC's requirements, but may not require less than the qualifications required by MHDC.

Describe the method that will be employed to solicit contractors for the purpose of becoming a pre-approved contractor pursuant to MHDC requirements. Include the Sub-Grantee's plan for outreach to women and minority owned businesses³.

Describe the process for selection of a contractor. Selection of the contractor with the lowest-priced bid is not required when a better product, material, labor, or service or a combination is available from another contractor and the better product, material, labor, or service will extend the longevity, sustainability, or energy efficiency of the property. Include the process by which the Sub-Grantee will ensure that the contractor is not debarred, suspended, or otherwise rendered ineligible to perform federal work.

Describe the policy and process to be followed when the homeowner indicates a desire to choose an alternative contractor than the contractor selected by the Sub-Grantee.

Describe the policy and process to be followed when subcontractors are included in rehabilitation activities.

Describe the intended contractual relationships between the homeowner, the contractor, subcontractors, and the Sub-Grantee.

Include standardized requirements or processes for each project including access to the property, inspections, timelines, change orders, and termination of contractors.

Include the process by which the homeowner may be involved in matters such as color selection or homeowner-paid upgrades.

Close-Out and Payment

Include the Sub-Grantee's plan for ensuring that the quality of rehabilitation activities is appropriate, including making progress inspections, change orders, and final inspections.

Describe the process by which the Sub-Grantee will make payment to contractors and subcontractors and ensure that all mechanic and materialmen liens are released. Describe the requirements for closing out a project upon completion.

Appeals and Complaints

A procedure for appeals and complaints must be clearly set forth in the Sub-Grantee's policies and procedures. Include a process for resolving conflicts between the homeowner and the contractor,

³ See [24 CFR Part 92.351\(b\)](#) for specific regulations.

including a process for homeowners to follow if they have concerns or complaints regarding decisions made, the quality of work, the contractor's actions, the materials used, or other deficiencies.

Administrative Services, Expenses and Fees

Include a description of the staff positions and qualifications for those staff members responsible for accomplishing tasks within the program.

Include a method of calculating administrative expenses including salaries, wages, overhead and related expenses should also be included.

A statement prohibiting the charging of fees and expenses to the homeowner is required.

Conflict of Interest

Sub-Grantees are required to adopt a policy prohibiting conflicts of interest. Include details of Sub-Grantee's conflict of interest policy prohibiting activities that create a conflict of interest consistent with the Conflict of Interest requirements contained in this document.

Recordkeeping

The Sub-Grantee must establish and maintain sufficient records to document that program requirements are met including program records, project records, financial records, administration records and records concerning federal requirements. All records must be maintained for a period of at least five years from the date of project completion.

Project records must be maintained and include:

1. A description of each project including the location with a map;
2. The sources and application of funding;
3. Compliance with minimum and maximum funding limits;
4. Compliance with property standards, rehabilitation standards, code requirements, lead-based paint and environmental requirements;
5. Compliance with income eligibility requirements;
6. Compliance with property eligibility requirements;
7. Compliance with ownership requirements; and
8. Compliance with Maximum Property Value requirements

The Sub-Grantee must maintain records that evidence compliance with written agreements and applicable administrative duties, including but not limited to program administration including inspections, monitoring activities, audits, and conflict resolution.

Records documenting compliance with the following requirements must be maintained:

- Equal opportunity and fair housing;

- Affirmative marketing and minority/women’s business outreach;
- Environmental review;
- Lead-based paint requirements; and
- Conflict of interest

Program Plan Updates

The Program Plan should be updated at least one time every three years and must include a statement of the most recent revision date in the Program Plan.

Non-Metropolitan or Disaster Areas

HOME funds provided through the HeRO program must be used to assist with the repair, rehabilitation, or reconstruction of owner-occupied homes that are located either a non-metropolitan area⁴, or an area that has been declared as a disaster area by the federal or state government on or after January 1, 2022.

Rehabilitation Activity

HOME funds provided through the HeRO program must be used to assist with the repair, rehabilitation or reconstruction of owner-occupied homes.

The work must be performed according to MHDC’s property and construction standards as specified in this document⁵. The work must be performed in such a manner that the property, after rehabilitation, will meet all applicable codes and the standards set forth in this document and inspection forms. In the absence of a state or local code, the property must meet the standards of the International Building Code⁶.

Homes being rehabilitated must be brought up to the appropriate code levels, Sub-Grantees may not undertake any form of special purpose homeowner repair program such as weatherization programs, emergency repair programs, or handicapped accessibility programs unless these types of repairs are undertaken within a more comprehensive scope of work that brings the house up to code.

Funding provided by the HeRO program may be used to assist with any of the following:

- Repair, modification, and replacement
- Environmental
- Weatherization
- Accessibility

⁴ See [Appendix C](#) for full definition

⁵ See Contractor Qualifications and Procedures on [Page 8](#)

⁶ See more details [here](#) for the International Code Council and the International Building Code.

- Lead risk reduction
- Emergency home repair in disaster areas

Qualified Contractors

Only qualified and pre-approved contractors may perform work on projects receiving funding through the HeRO program. Each policy and procedure outlined in this document that refers to contractors is intended to also include subcontractors of any tier and all subcontractors are required to be qualified, pre-approved and meet the same requirements and standards as a contractor.

A qualified contractor must have an appropriate general contractor license, or equivalent license, issued by the local city, township or county within which work is to be performed and where such licensing is available. All contractor organizations must be authorized to conduct business in the state of Missouri and be in good standing. The Sub-Grantee is responsible for ensuring that the contractor has not been debarred, suspended, or otherwise declared to be ineligible to perform federal work. In projects that include lead hazards, the work must be performed by a qualified contractor pursuant to [24 CFR Part 35](#). The contractor must be trained in Lead Safe Work Practices.

Contractors must have general liability insurance of at least \$150, 000, carry worker’s compensation insurance and auto insurance.

In addition, these contractors must provide a minimum of one year warranty on its work performed on a project. They must also be pre-approved by MHDC before commencement of rehabilitation activities. Once a contractor is approved by MHDC, the approval will remain in effect for a period of three years and subsequent approvals during that period will not be required. MHDC reserves the right to, at any time, request any of the information provided at the time of the approval be updated. To obtain approval for a contractor, the Sub-Grantee must submit the following to MHDC:

- MHDC Form 435 *Contractor Application*. Form 435 must be completed by the contractor. The Sub-grantee is responsible for verification of references;
- MHDC Form 440 *Debarment Certification*. The top portion of Form 440 entitled “Contractor Certification” must be signed by the contractor or an authorized representative of the contractor’s organization. The lower portion of Form 440 entitled “Sub-Grantee Certification” must be signed by a representative of the Sub-Grantee after the Sub-Grantee has checked the contractor’s references and has checked for debarment or suspension from federal work; Copy of the contractor’s applicable local licenses and permits
- Proof of training for the “EPA Renovator Right” lead class⁷;
- Proof of Lead Abatement Certification for Abatement Contractors when applicable;

⁷ More information on “EPA Renovator Right” can be found [here](#)

- Proof of current contractor organization authority to do business in the state of Missouri;
- Proof of contractor’s insurance including:
 - General liability insurance in the amount of at least \$150,000;
 - Worker’s Compensation insurance; and
 - Auto Insurance

Inspections

Inspections are required on every project. The HeRO program requires that inspections be completed in accordance with HUD’s Uniform Physical Condition Standards. MHDC’s Form 410 *HeRO Inspection Form* includes all applicable areas and items to be inspected pursuant to HUD’s Uniform Physical Condition Standards and PASS inspection process. MHDC Form 410 *HeRO Inspection Form* must be used. MHDC Form 410-I *HeRO Inspection Form Instructions* provides detailed information regarding inspection standards and additional information can be obtained from HUD’s Dictionary of Deficiency Definitions for the Real Estate Assessment Center System and Physical Assessment Subsystem.

Initial Inspection

An initial inspection is required as a critical component of the rehabilitation process. The objective of the initial inspection is to establish eligibility and identify work to be undertaken. This includes necessary repairs to major systems⁸ and a determination on whether the necessary repairs can be completed in compliance with the financial limitations of the program. The initial inspection should be completed by a qualified inspector who is able to assess the longevity or lifespan of major systems, who is trained to recognize lead hazard issues, and who is trained to recognize and assess needed repairs and life-threatening conditions. The initial inspection should be completed in cooperation with the homeowner.

MHDC Form 410 *HeRO Inspection Form* must be used.

The initial inspection report must:

- Provide detailed, clear, specific and complete information regarding the status of the house, scope of work and repairs needed;
- Be provided to the Appraiser prior to completion of the appraisal; and
- Be provided to each contractor submitting a bid.

The cost associated with an initial inspection completed by a third party must be paid by the Sub-Grantee and will be eligible for reimbursement as a soft cost provided that the cost is reasonable, the project is approved, the home undergoes rehabilitation activities and the project is properly completed. In the event a project or homeowner is deemed ineligible or the rehabilitation activities are not undertaken or

⁸ See [Appendix C](#) for full definition

completed for any reason whatsoever, the cost associated with the initial inspection shall be the sole responsibility of the Sub-Grantee and will not be eligible for reimbursement through MHDC, the HeRO program or HOME funds.

Interim Inspections

On some projects, an interim inspection may be necessary to ensure that the progress of the rehabilitation activities is appropriate, that compliance with codes is occurring and that the appropriate materials and level of workmanship is being provided.

Final Inspection

Upon completion of the rehabilitation, a final inspection is required to ensure that the house is decent, safe, sanitary and in good repair; that all rehabilitation, repairs and abatements were properly completed; that the major systems have a lifespan of at least five years; and that there are no visible deficiencies. The final inspection should be completed by a qualified inspector who is able to assess the longevity or lifespan of major systems, who is trained and able to assess lead hazard issues and proper abatement, and who is able to recognize and assess the quality of workmanship and materials provided and recognize deficiencies in accordance with Uniform Physical Condition Standards. The inspector performing the final inspection must be independent and separate from the contractor performing rehabilitation activities.

Appraisals

Each individual project must be independently appraised by a licensed appraiser. Prior to completion of the appraisal, a copy of the initial inspection and any other documentation necessary to provide adequate detail regarding the scope of work must be supplied to the appraiser in order to enable the appraiser to project an after-rehabilitation value. The appraisal must show the before-rehabilitation value and the projected after-rehabilitation value and must show the method of calculation and reasoning for the value set.

The cost associated with an appraisal completed by a third party must be paid by the Sub-Grantee, but will be eligible for reimbursement as a soft cost associated with projects that are approved and that undergo rehabilitation activities. In the event a property or the homeowner is deemed ineligible or the rehabilitation activities are not undertaken or completed for any reason whatsoever, the cost associated with the appraisal shall be the sole responsibility of the Sub-Grantee and will not be eligible for reimbursement through MHDC, the HeRO program or HOME funds.

Work Write-Up and Cost Estimate

A Work Write-up and Cost Estimate must be prepared and must provide a detailed, clear, specific and complete description of the scope of work to be completed and projected cost of the required rehabilitation.

The Work Write-up and Cost Estimate must include costs and work associated with activities that must be

undertaken in connection with lead paint regulations.

Bids

At least three bids must be obtained from three separate and independent contractors prior to commencement of any rehabilitation activity. An informal bid or cost estimate process may be used but identical information shall be provided to potential contractors with sufficient detail to allow for the collection of competitive pricing quotations. All bids must be in writing. The final contractor selection will be at the discretion of the Sub-Grantee and homeowner and should be based upon selecting the best bid. Selection of the contractor with the lowest-priced bid is not required when a better product, material, labor or service or a combination is available from another contractor and the better product, material, labor or service will extend the longevity, sustainability, or energy efficiency of the property. All contractors must be pre-approved by MHDC and have the appropriate licenses or permits prior to the commencement of any work.

MHDC is committed to supporting the inclusion of MBE/WBE certified business enterprises and Sub-Grantee should make a reasonable effort to obtain cost estimates or bids from women- and minority-owned contractors.

Funding Reservations

A funding reservation must be received on each individual project prior to the commencement of work. In order for funding to be reserved, the Sub-Grantee must submit the following forms and applicable documentation via the grant interface:

- Form 400 *Application* completed by the homeowner;
- Form 410 *Initial Inspection* completed by the Sub-Grantee or Sub-Grantee's contracted inspector;
- Form 420 *Work Write-Up and Cost Estimate* completed by the Sub-Grantee;
- An appraisal showing the before-rehabilitation value and after-rehabilitation value;
- Photographs of all areas of the home to be repaired that show sufficient detail to depict the deficiencies to be corrected;
- A copy of the warranty deed showing ownership of the property in the name of the homeowner/applicant; and
- Form 425 Income Eligibility Verification Form with copies of applicable income documentation;
- Form 415 *Environmental Reports*- including the appropriate SHPO & FEMA letters along with all supporting documentation, maps, etc. used to answer each question on the Form 415;
- A copy of the contractor's current documents to include certificates and licenses

APPLICATION AND SELECTION INFORMATION

This section explains the application process for MHDC funding, including MHDC's review process and method of funding determination. This section should be reviewed closely when considering or completing an application for funding.

An application is only considered complete and acceptable if it includes a three-ring binder containing original copies of a completed MHDC Form 490, *HeRO Application for Funding*, and each exhibit or required supporting document specified in Form 490. An application must also include a CD or a thumb drive containing copies of the application and all documents submitted with the application. The documents must be in Microsoft Word, Microsoft Excel or .pdf format. Applicants must be sure that the CD or thumb drive is working, the file is readable, and the CD or thumb drive is virus free. If the CD or thumb drive is missing, inoperable or if the application file is unreadable, a deduction of points will result.

All Applications in response to the Notice of Funding Availability approved by the MHDC Board of Commissioners on September 1, 2021, must be physically received at MHDC's Kansas City office, to the attention of the HeRO program, located at 920 Main Street, Suite 1400, Kansas City, MO 64105 no later than 4:00 PM CDT on Friday, December 3, 2021. There are no exceptions to this requirement and any application received after 4:00 PM CDT on Friday, December 3, 2021, will be rejected and considered ineligible for funding.

Applicants must respond to each question in the application.

Funding Determination

MHDC will award HeRO funds based on a statewide competition. All applications will be reviewed and compared based on the items described in the application and this document. Each item will be reviewed and a score determined at MHDC's sole and absolute discretion will be assigned with a maximum possible score of 99.

Once scores are calculated, the applications shall be ranked in order of the highest score to the lowest score and funding will be based upon such ranking, except that the amount of funding to be awarded to any individual applicant:

- May be less than the amount requested;
- Will depend upon the total amount of funding available;
- Will depend upon the number of qualified applications received;
- Will depend upon the number of qualified applications received within the same geographical region and/or serving the same counties;
- Will depend upon other factors such as population, poverty level, potential number of qualifying

households, and

- May depend upon funding needed within a specific geographical area due to disaster or other extraordinary circumstances.

FORMS OF FINANCIAL ASSISTANCE

The HeRO program is intended to assist low- and moderate-income Missouri homeowners who are without the resources necessary to make repairs. To that end, MHDC intends for the funds provided through the HeRO program to be used as grants or for zero interest forgivable loans.

Sub-Grantees are not permitted to make interest bearing loans or loans that require installment or balloon payments to be made under any circumstances except that repayment of funding may be required if the homeowners fail to continuously occupy the home for a period of three years following completion of rehabilitation activities. In the event of such repayment, such funds shall be returned to MHDC as recaptured funds to be counted as program income and redistributed through normal administration of HOME funding.

Each grant or forgivable loan shall include a Regulatory Agreement that requires the homeowner to continuously occupy the premises for a period of at least three years. The principal amount of the loan shall not be diminishing over the term of the loan and forgiveness of the loan shall occur upon:

- Completion and compliance with the three year Regulatory Agreement requirement to continuously occupy the premises;
- Death of all homeowners;
- Foreclosure due to loss of income;
- Relocation of all homeowners to assisted living;
- Relocation of all homeowners due to accessibility needs;
- Extraordinary circumstances warranting forgiveness as determined in the sole discretion of MHDC.

All homeowners must sign the Regulatory Agreement. The Regulatory Agreement shall be created in favor of Missouri Housing Development Commission and shall be submitted to MHDC to be recorded with the local County Recorder of Deeds prior to the start of rehabilitation of the project.

Sub-Grantees are not permitted to charge fees or costs of any kind whatsoever to the homeowner including overhead costs, administrative costs or fees, application fees, loan origination fees, loan servicing fees, construction management fees, underwriting fees, etc.

ELIGIBILITY

HOME funds provided through the HeRO program are used to assist with the repair, rehabilitation or reconstruction of owner-occupied homes and must meet the criteria included in this section.

Previous HeRO Participation

Homeowners who have previously participated in the HeRO program and received benefits or repairs to their current or former homes are not eligible.

Owner-Occupied Homes

Only owner-occupied homes are eligible for rehabilitation. For purposes of the HeRO program, an owner-occupied home is defined as:

- A home occupied by one or more persons having ownership in fee simple title subject only to mortgages, deeds of trust, liens or instruments securing debt on the property, or other restrictions that do not impair the good and marketable nature of title to the ownership interest and such person or persons occupy the home as a principal residence;
- A home that is an inherited property with multiple owners (heir property) in which title has been passed to several persons by inheritance and in which at least one of the heirs with a divided ownership interest occupies the house as their principal residence, and pays all the costs associated with ownership and maintenance of the housing such as mortgage payments, taxes, insurance, and utilities;
- A home involving a life estate (life estate property) in which the occupant has the right to live in the housing for the remainder of his or her life, does not pay rent and resides in the home as their principal residence;
- A home held in a living trust⁹ which holds legal title, but in which the occupant is the beneficiary of the trust, holds equitable title and resides in the home as their principal residence.

Ownership must be established through documentation including:

- Copies of deeds
- Tax receipts
- Proof of insurance.

Deeds of Trust and Release Deeds are not acceptable ownership documents. Ownership under a contract for deed, installment contract, or land sales contract (pursuant to which the deed is not given until the

⁹ See [Appendix C](#) for full definition

final payment is made) is not considered homeownership and does not qualify for the HeRO program.

Mobile and Manufactured Homes

Pre-1978 mobile homes with or without additions are not eligible and do not qualify for the HeRO program.

In order to qualify for the HeRO program, all manufactured housing must:

- Be situated on land that is owner-occupied as described in this document;
- Be permanently affixed to the land by means of a poured permanent concrete foundation and meet the requirements set out by the Missouri Department of Revenue¹⁰, which includes but is not limited to an Affidavit of Affixation (Form 5312) recorded with the Recorder of Deeds in office in the county in which the land is located;
- Be permanently connected to utilities such as water, sewer, electricity, and gas;
- Have all wheels, axles, and hitches removed; and
- Include construction standards that meet Manufactured Home Construction and Safety Standards.¹¹

Property Type, Occupation, Age, and Size

In order to be eligible for assistance through the HeRO program the property must:

- Not be a condominium, timeshare or cooperative home or unit;
- Not be located in a floodplain (flood zone A);
- Have been occupied by the current owner-occupying homeowner for at least three years;
- Be at least three years old;
- Not be an income producing property such as a ranch or farm¹²; and
- Not be used as collateral for a reverse mortgage.

Maximum Property Value

Only homes with a value equal to or less than the Maximum Property Value are eligible for rehabilitation. For purposes of the HeRO program, Maximum Property Value is defined as the value of a home after rehabilitation which may not exceed 95 percent of the area median purchase price for the county within which the property is located, as determined by HUD. The schedule of area median purchase prices is

¹⁰ More information from Missouri Department of Revenue can be found [here](#)

¹¹ [24 CFR part 3280](#)

¹² *Any property in excess of 10 acres shall be deemed a property intended to be an income producing property regardless of whether the property is currently producing income and such property shall not be eligible*

published at HUD's website¹³ and is subject to modification by HUD from time to time. The area median purchase price in effect on the date of the appraisal shall be used.

To establish project eligibility, the after-rehabilitation value must be determined by a licensed Appraiser as set forth in this document prior to the commencement of construction or rehabilitation activities. The appraisal provided must include documentation of the before-rehabilitation value and projected after-rehabilitation value, including the appraisal approach used.

The Maximum Property Value allowed has changed substantially. The Maximum Property Value in many counties will be significantly lower than the Maximum Property Value used in previous funding through the HeRO program. It is the responsibility of the Sub-Grantee to ensure that a home will have an after-rehabilitation value equal to or less than the Maximum Property Value prior to commencement of work.

Income Eligibility

The HeRO program provides assistance to low- and moderate-income qualifying homeowners. For purposes of the HeRO program, a low- or moderate-income qualifying homeowner is defined as a household earning an annual income of 80 percent or less of the Area Median Income (AMI) as defined and established by HUD and in effect on the date of the grant agreement between MHDC and the Sub-grantee for the county within which the property is located. AMI levels are published at HUD's website¹⁴. Organizations are encouraged to use a portion of funding to serve households with very low income levels at 50 percent or less of the AMI.

The method of calculation of annual income for purposes of administration of the HeRO program will be to use at least three months of source documents and to use the definitions and methods according to Part 5 annual income¹⁵, except that the value of the homeowner's principal residence may be excluded from the calculation of Net Family Assets¹⁶.

Eligible Rehabilitation Costs

All repair or rehabilitation activities and costs must be performed to assist low- and moderate-income homeowners and must be performed on eligible owner-occupied properties.

The amount of HeRO program funding on each project must be at least \$1,000 but not more than \$22,500, including project hard and soft costs but not including administrative costs. Use of HeRO program funding in conjunction with other available funding is encouraged, but HeRO funds may be used only to supplement or leverage other funding sources and may not be used for costs that are paid by other sources of funding. Sub-Grantees may not invest any more HeRO funds than necessary to provide affordable housing and shall not provide any items of a luxurious nature.

¹³ The Maximum Purchase levels can found [here](#).

¹⁴ The Area Median Income levels are published [here](#).

¹⁵ See [24 CFR Part 5.609](#) for more details

¹⁶ [24 CFR 5.603](#)

Eligible costs include:

- The actual reasonable and necessary hard costs of repairing or rehabilitating a house that are incurred and paid including:
 - Meeting the rehabilitation standards set forth in this document
 - Meeting applicable codes, standards, and ordinances
 - Essential improvements
 - Energy-related improvements
 - Lead-based paint hazard reduction
 - Accessibility for disabled persons
 - Repair or replacement of major housing systems
 - Incipient repairs and general property improvements of a non-luxury nature
 - Site improvements and utility connections
 - Other reasonable and necessary costs approved in writing by MHDC
- The actual reasonable and necessary soft costs associated with the rehabilitation or repair that are incurred and paid including:
 - Architectural, engineering, or related professional services
 - Appraisal fees
 - Inspection fees
 - Testing fees
 - Flood letters
 - Legal and accounting fees
 - Recordation fees
 - Permits
 - Administrative fees as described in this document
 - Other reasonable and necessary fees approved in writing by MHDC
- The actual reasonable and necessary administrative costs incurred and associated with the rehabilitation or repair of a project in an amount up to 10 percent of the total amount of funding provided through the HeRO program for rehabilitation of the project including:
 - General management, oversight, and coordination including salaries, wages, overhead, and related costs

- Travel costs directly related to carrying out administration of the HeRO program
- Administrative services performed under third party contracts or agreements including services such as general legal services, accounting services and audit services
- Other costs for goods and services required for administration of the program, including such goods and services as rental or purchase of equipment, insurance, utilities, office supplies, and rental and maintenance (but not purchase) of office space
- Activities to affirmatively further fair housing and to adequately publicize the program to interested parties in potentially qualified households, and affirmatively market the program to minorities, persons with disabilities, and other protected groups.

Costs associated with hard or soft cost items that are provided by the Sub-Grantee and not by a third party shall be treated as part of the administrative costs and shall not be considered hard or soft costs. For example, when a Sub-Grantee pays a third party inspector to complete the initial inspection, the cost incurred and paid to the third party may be treated as an eligible soft cost. However, if the Sub-Grantee's employee performs the inspection, then the cost of labor associated with performance of the inspection shall be treated as an administrative expense and no additional inspection fee will be allowed as a soft cost.

Eligible Rehabilitation Activities

Eligible rehabilitation activities include the following:

- Costs incurred to comply with codes and property standards as defined by this document which may include the repair, replacement or updating of items such as roofing, electrical wiring, GFCI outlets, AFCI outlets vinyl exterior siding, or smoke detectors;
- Remediation of environmental hazards including Lead-Based paint, radon, asbestos and removal of underground oil tanks. Lead Mitigation is required in pre-1978 homes. Costs may include such activities as capping or painting window trim, sashes, interior wood trim and exterior surfaces; removal or disposal of asbestos pipe insulation or siding; and testing and clearance reports;
- Accessibility improvements which may include items such as installation or repair of ramps, handrails, grab bars, and replacement of bathtubs with wheel-in showers; lowered sinks, switches, thermostats, or cupboards; and widening doorways;
- Energy improvements such as installation of heating systems, caulking, weather-stripping, storm windows, thermal shades, shutters, insulation and hot water systems;
- Foundation of structural repairs
- Repair, replacement, or upgrade of existing septic systems and wells;
- Repair or winterization of an existing porch, if essential;

- On-site infrastructure costs and off-site utility connections from the property line to an adjacent street such as electrical wiring, connections, sewer, and water piping;
- Repair or replacement of major housing systems ensure a useful life of at least five years as required;
- Termite damage repair and treatment to the dwelling; and
- Other activities approved in writing by MHDC in advance.

Prohibited Activities

All exceptions must be approved in writing by MHDC in advance.

Funding provided by the HeRO program may not be used to:

- Pay delinquent taxes, fees or charges on the property
- Provide reserve accounts
- Provide non-federal matching contributions required under any other Federal program

Funding provided by the HeRO program may not be used for installation, repair or replacement of the following:

- Appliances;
- Updating kitchens, bathrooms, and other décor;
- Furniture or other personal property;
- Carpet or tile/vinyl flooring;
- Greenhouses;
- New construction of garages;
- Barns, sheds, or outbuildings;
- Construction of a new home or a shell home;
- Completion of a new home, a shell home, or additions;
- Decks, except decks that serve as the primary porch at the primary entry of the house;
- Patios;
- Fences;
- Fire extinguishers;
- Fireplaces;

- Generators;
- Portable heaters;
- Heating fuel;
- Hot tub, Jacuzzi, whirlpool bath, sauna, and bath house;
- Landscaping (unless used for diversion of drainage ditches or lead interim controls);
- Driveways and sidewalks, except safety and accessibility repairs;
- Fishing, boating or water Piers;
- Steam cleaning of exterior surfaces;
- Tree surgery or removal;
- Unfinished structures;
- Vacuum cleaner central systems;
- Paying debts of the homeowner such as mortgages or delinquent taxes;
- Repairs made to properties located within a floodplain; or
- Any item or activity deemed to be luxurious

Exceptions may be made to prohibited activities on a case by case basis if the installation, repair or replacement is reasonable and necessary for health or accessibility or is necessary to provide decent, safe and sanitary living conditions. In addition, some exceptions may be made when the item is included in the overall repair. For example, installation of new tile or vinyl flooring is prohibited as a stand-alone item; however, if the underlying flooring is repaired and the existing tile or vinyl flooring is destroyed in the process of making the repairs, installation of new tile or vinyl flooring will be allowed. All exceptions must be approved in writing by MHDC in advance.

REHABILITATION STANDARDS

Homes must be rehabilitated in such a manner that, upon project completion, the home will pass an inspection utilizing HUD's Uniform Physical Conditions Standards as set forth on MHDC Form 410 *HeRO Inspection Form*, meet the physical standards set forth in this section, and will be considered decent, safe, sanitary, and in good repair.

Labor must be performed by qualified and pre-approved contractors and quality materials must be used in such a manner that will ensure the structural integrity and longevity of the rehabilitation or repairs.

Homeowners may contribute funds to the project. They may also pay for any upgrades that are not considered luxurious in nature. For example, the homeowner is allowed to pay the difference for an extended warranty item such as 30-year shingles instead of the standard 20-year shingles. The homeowner may not, however, pay the difference for a Jacuzzi tub or marble flooring instead of the standard since those items are considered luxurious.

Sweat equity is prohibited. Homeowners may not perform any labor or repairs while under contract with the participating agency. Any ongoing repairs initiated by the homeowner or a third party must be completed prior to commencement of rehabilitation.

Life of Major Systems

Homes must be rehabilitated in such a manner to ensure that, upon project completion, each of the following major systems will have a remaining useful life for a minimum of five years:

- Structural support
- Roofing
- Cladding and weatherproofing (e.g., windows, doors, siding, gutters)
- Plumbing
- Electrical
- Heating, ventilation, and air conditioning

Decent, Safe, Sanitary, and in Good Repair

The property, after rehabilitation, must be decent, safe, sanitary, and in good repair. The following sections describe the specific criteria required.

Water Supply and Sanitary Facilities

The home must include a water supply that is free of contamination and must include sanitary facilities in proper operating condition and adequate for personal cleanliness and disposal of human waste, and such facilities must be usable in privacy.

Food Preparation and Refuse Disposal

The home must have suitable space and equipment in proper working order to store, prepare, and serve food in a sanitary manner.

Space and Security

The house must provide adequate space and security for the occupants.

Thermal Environment

The house must be able to provide a thermal environment that is healthy for the human body.

Illumination and Electricity

Each room must have adequate natural or artificial illumination to permit normal indoor activities and support the health and safety of occupants including sufficient electrical sources so that occupants can use essential electrical appliances.

Structure and Materials

The house must be structurally sound, must not present any threat to the health and safety of the occupants, and must protect the occupants from the environment.

Interior Air Quality

The house must be free of air pollutant levels that threaten the occupants' health.

Lead-Based Paint

The house must comply with the provisions of the lead-based paint requirements of [24 CFR Part 35](#).

Disaster Mitigation

Where relevant, the house must be improved to mitigate the impact of potential disasters such as flooding or tornadoes.

Accessibility

The house must meet the accessibility requirements in [24 CFR Part 8](#).

Safety and Sanitation

The house must be free from unreasonable safety hazards and must be in sanitary condition including being free from vermin and rodent infestation.

Smoke Detectors (Alarms)

Smoke detectors (alarms) shall be installed in all code required locations and shall be in proper operating condition.

Life Threatening Conditions

The following items are considered life-threatening and must be reported to the homeowner and repaired immediately:

- Propane, natural, or methane gas detected;
- Exposed wires or open electrical panels;

- Water leaks on or near electrical equipment;
- Blocked or unusable emergency or fire exits;
- Blocked fire escapes or ladders;
- Missing gas-fired hot water heater/HVAC
- Misaligned chimney;
- Window security bars preventing exit;
- Expired fire extinguishers; or
- Inoperative/missing smoke detectors

Environmental Review

The environmental effects of each rehabilitation must be assessed in accordance with the provisions of the National Environmental Policy Act of 1969 (NEPA) and the related authorities listed in HUD’s implementing regulations¹⁷. No funds may be committed before the completion of the environmental review. An Environmental Review Report must be prepared which includes the SHPO (Section 106 Review) and a letter from FEMA indicating that the property is not in a floodplain. All supporting documentation must be submitted with the Environmental Review Report.

Lead-Based Paint

A lead-based paint testing and risk assessment must be conducted by a qualified inspector prior to rehabilitation activity. Projects assisted with funding from the HeRO program are subject to the Lead-Based Paint Poisoning Prevention Act¹⁸ and the Residential Lead-Based Paint Hazard Reduction Act of 1992¹⁹. Homeowners must be supplied with the “Protect Your Family from Lead in Your Home” pamphlet and a copy of the lead hazard evaluation.

Physical Standards

Homes must be rehabilitated in such a manner to ensure that, upon project completion the home will meet all applicable state and local codes, ordinances, and zoning requirements. The housing must also, upon project completion, be free of all health and safety defects and will have no observable deficiencies using physical inspection procedures under Uniform Physical Condition Standards.

¹⁷ See 24 CFR parts [50](#) and [58](#) for more details

¹⁸ As described in [42 USC Chapter 63](#)

¹⁹ As described in [42 USC 63 A](#)

PROPERTY AND CONSTRUCTION STANDARDS

The intent of the HeRO program is to provide safe, decent, and sanitary housing for low-income individuals and families. To that end, the purpose of these written Property Standards is to establish the minimum standards which any housing unit rehabilitated with HOME funds must meet.

General Requirements

All measurements are the responsibility of the qualified contractor. All Materials having color or pattern shall be selected by the homeowner. Building permits, electrical permits, plumbing permits and other permits required by local or state authorities must be obtained by the contractor, the costs for which shall be incorporated into the bid submitted by the contractor. The contractor must obtain permits prior to commencement of work and must provide copies of permits to the homeowner and the Sub-Grantee. Failure to obtain required permits will result in nonpayment of work until the necessary permits are obtained.

Workmanship and materials not covered by manufacturer's warranty shall be warranted by the Contractor for a period of at least one year from date of final payment to the contractor. All manufacturer warranties shall be delivered by the Contractor to the homeowner along with a copy of the final billing.

All repair work shall conform to the standards and codes requirements contained in this document. All work must be performed in accordance with HUD Lead-Based Paint regulations as described in [24 CFR Part 35](#). Lead safe practices must be employed in all work that disturbs painted surfaces. After completion of all work, contractor must clean the work area(s) to meet HUD Lead Dust clearance standards.

Materials

All materials must be new unless authorized in writing by MHDC prior to installation or use. All materials shall be made and installed so they perform in accordance with their intended use or purpose. Materials installed shall be of such kind and quality to ensure that the dwelling will provide acceptable durability, economy of maintenance, energy efficiency, and adequate resistance to weather, moisture, corrosion and fire.

Electrical

Electrical Contractors must be trained and follow safe work practices. The Electrical Contractor is responsible for obtaining and payment of electrical permits, assurance of inspections of the completed work by local electrical inspector as required, and for disconnect and reconnect fees charged by local utility organizations.

All materials and equipment shall be new, of consistent quality throughout, and shall conform to the latest UL, ANSI and FS standards, as well as to all other applicable standards and local building codes. All

materials and equipment shall be clearly marked to permit identification of manufacturer, model and type. The contractor shall furnish all instruments, gauges and equipment required for testing and shall perform those tests required by the related authorities. Equipment, materials or work found to be defective during testing shall be replaced by new work and be retested until proven satisfactory. All finished parts and materials shall be protected against damage from whatever cause during the progress of the work and until completion. All electrical materials and equipment in storage and during construction shall be covered in such a manner that no finished surfaces will be damaged or marred. All parts of the electrical apparatus and equipment shall be thoroughly cleaned of cement, plaster, and other foreign materials.

All wiring, fixtures, switches, receptacles, etc., shall be installed with covers and all applicable accessories. New cable will be installed as straight as conditions allow and properly secured with staples as required by the current National Electric Code. All electrical equipment and exposed wiring not in use shall be disconnected and removed. All exposed knob and tube wiring shall be disconnected, removed and replaced. The electrical contractor shall convert all single outlets to duplex and replace all missing switch and outlet covers. Fixtures, equipment and materials furnished by others that require electrical wiring, connection, or related electrical work shall be connected by the electrical contractor.

The contractor shall do all drilling, cutting and patching required for the installation of the work. All holes made by electrician must be patched and sanded with the same materials, workmanship and finish as the original work and shall match all surrounding work, painting excluded. If more than two square feet of painted surfaces are disturbed in any one interior room or space, contractor shall clean floors, window sills and window troughs to meet HUD clearance criteria for lead dust. Each home must have, in addition to the minimum room standards described below, a separate ground fault 20 amp circuit in the kitchen for the refrigerator or gas appliances, a separate 220V, 50 Amp circuit for an electric range and a separate 220V, 30 Amp clothes dryer circuit.

Minimum room electrical requirements are: Living room, dining room, bedrooms and other family type rooms must have two duplex outlets or one duplex outlet and one ceiling or wall type fixture. Kitchens must have two ground fault duplex outlets and one ceiling or wall type fixture. Bathroom must have one ground fault outlet and one ceiling or wall type fixture. The contractor shall keep all parts of the building and site free from accumulation of rubbish and waste materials caused by work and shall remove such accumulation from the site.

Repair Doorbell System

Repair doorbell system by installing one push button per unit, one transformer per push button, one buzzer per unit and wiring to the current National Electric Code.

Replace Exterior Electrical Service Entrance

Install new 220 volt 200 Amp electric service. Work to include properly sized type SE cable, weather head and meter socket enclosure. Service must be grounded to copper cold water pipe before the water meter or to 8' copper ground rod. Install new type SE cable to existing / new interior load center.

Install New Interior Electrical Service Panel

Install new 220 volt 200 Amp electrical panel in basement or other appropriate location with a 200 Amp main breaker and with at least 16 circuit breaker positions. Connect all new and / or existing branch circuits into new panel on appropriately sized circuit breakers and wiring to code. Additionally, new ground wire should be installed. Water pipe must be in use and clamps should be on both sides of water meter or attached to an 8' exterior grounding rod. Minimum wire size will depend on size of service and determined by the electrical contractor.

Replace Ground Wire

Replace defective ground-wire strap with new approved clamp. Replace ground wire, if defective. Water pipe must be in use and clamp shall be on both sides of water meter. Minimum wire size will depend on size of service.

Replace/Install New GFCI Outlet in Kitchen/Bath

Install GFCI outlet and plate nonmetallic box and 12/2 NM cable or cable as required by the National Electric Code.

Replace/Install New Duplex Outlets

Install duplex outlet using grounded outlet metal box with rabbit ears and appropriate sized Romex cable with ground.

Install New Range Outlet

Install new range outlet in kitchen using 50 Amp surface mounted outlet and appropriate sized cable as required by the current National Electric Code.

Install New Dryer Outlet

Install new dryer outlet using 30 Amp surface mounted outlet and appropriate sized cable as required by the current National Electric Code.

Replace/Install New Wall Switch

Install new single pole/3-way wall switch using silent wall switch metal box with rabbit ears and appropriate sized Romex cable with ground.

Replace/Install New Ceiling Light

Install new ceiling light [two light bulb capacity using fixture [with or without pull chain].

Replace/Install New Wall Mounted Light

Install new wall mounted light using fixture [with or without pull chain].

Replace/Install New Exterior Light

Install new exterior light.

Replace Missing Junction Box Cover

Repair defective junction box by installing new metal cover.

Install New Timer Switch

Install new 120/240 volt 24 hour timer switch and 12/2 with ground Romex cable, according to the

current National Electric Code.

Install Smoke Alarms

Install one new smoke alarm in each bedroom area and on each level of the home. Unit to be U.L. or N. F. P. A. approved. Unit will be AC with DC back up [hardwired with battery backup]. Installation shall be according to manufacturer's specifications, the current National Electric Code and N.F.P.A. and include non-metallic/metal box with rabbit ears and 12/2 with ground Romex cable.

Replace Wiring Due to Code Violations

To be installed by a licensed technician following all local and national codes including the current National Electric Code. Obtain all applicable permits required for that area before beginning project. All brittle or worn wires that could potentially create a fire hazard must be rewired. New wiring from the pole to the house may also be required depending on current wattage.

Windows

All window work shall be performed in accordance with HUD Lead Safe practices. Replacement windows shall have a minimum life of 20 years.

Install Complete New Wood Window

First, they need to remove existing window and dispose. Use lead safe practices if window is painted. Install complete new vinyl clad/primed/double hung/casement/awning window, frame and casings. Window to have 1/2" insulated glass and full screen. A 1" x 4" Pine/Colonial/Clamshell casing [finger jointed material allowed] should be installed on interior using appropriate size finish nails. Then, install fiberglass insulation and appropriate caulking around perimeter of new window in accordance with the manufacturer's specifications. Next, apply two coats [1 primer and 1 finish coat] of exterior/interior semi-gloss paint [using high quality brand named paint] to new wood according to the manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Install New Metal Window

First, remove the existing metal window and dispose. Then, install new aluminum replacement window according to the manufacturer's specification. Contractor will be responsible for replacement of all trim inside and out.

Install New Vinyl Window

Remove existing window sashes and dispose. Use lead safe practices if existing window(s) is painted. Install new vinyl replacement window according to manufacturer's specifications [including insulating the window weight cavities and appropriate caulking]. Windows should be double hung, with tilt out sashes, 3/4" insulated glass and half screen.

However, if:

- Any trim or molding broken by the contractor during removal of said trim/molding will be replaced and painted to match existing trim/molding.

- Apply two coats [1 primer and 1 finish coat] of exterior/interior semi-gloss paint [using high quality brand named paint] according to the manufacturer's specifications using a suitable brush or roller.

Install New Sash Cords

Repair defective window(s) by installing new sash cord on left/right/both side(s).

Install New Parting/Weather Bead(s)

Repair defective window (s) by replacing rotting/broken bead with new bead (s) on left/right/both side (s) of window. If existing parting beads are painted, use lead safe practices.

Adjust Side Stops (Window Band)

Repair defective window(s) by adjusting stops and fitting sash to allow easy operation. If existing stops are painted, contractor shall employ lead safe practices.

Install New Sash Run

Repair defective window(s) by installing complete new [AirLoc or approved equal] vinyl sash runs according to the manufacturer's specifications. Fit and adjust sash for easy, smooth operations.

Install New Storm/Combination Window

Remove existing storm windows and dispose. Install new white/brown/mill finish triple track aluminum combination storm/screen units according to the manufacturer's specifications using appropriate caulking. Homeowner to verify color selection.

Replace Broken Pane

First, repair broken window lite by removing sash from opening and dispose of broken glass. Next, install new glass, after cleaning rabbet, using putty/glazing compound on both sides of new glass and glazing points. Putty shall be installed for a smooth uniform appearance. Apply two coats [1 primer and 1 finish coat] of exterior/interior semi-gloss paint [using only high-quality, brand name paint] according to the manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from runs, drips, voids and brush marks.

Repair Broken Storm Pane

Repair broken storm window pane by removing insert and dispose of broken glass. Install new tempered safety glass in insert with appropriate spline or gasket.

Repair/Replace Wooden Skylight

Remove existing skylight and dispose. Install new venting wood skylight on existing hardware. Apply two coats [1 primer and 1 finish coat] of exterior/interior semi-gloss paint [using only high-quality, brand name paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Flooring

Normally, replacement of flooring is considered a cosmetic change. In certain cases, flooring may be

replaced. For example, flooring may be replaced in instances where the flooring has considerable water damage, the flooring that contains black mold, existing carpeting and pad causes wheelchair accessibility problems due to its thickness, or existing hardwood floor has been painted with a lead based product.

Remove Existing Flooring

Remove and dispose of existing flooring if practical or needed. Linoleum flooring manufactured prior to 1979 may contain asbestos in its backing. This type of floor often cannot be removed due to possible asbestos exposure.

Install Vinyl or Inlaid Flooring

Install 1/4" Lauan plywood underlayment using 7d ring-shank nails or 1" flooring screws: 6" on face and 4" along seam. Apply floor leveler to all seams created by new underlayment to create smooth surface. Install new 1/8" vinyl or inlaid flooring [must use high quality, brand name coverings]. Secure using full spread waterproof cement according to the manufacturers specifications. Color and pattern shall be owner's choice. Install 4" flexible vinyl cove base or wooden base along baseboard.

Install New Wall to Wall Carpet with Pad

Install new FHA-approved carpet over 6 pound padding using tack strips according to the manufacturer's specifications. Owner to select in stock color/pattern under \$20.00/SY (installed with pad) allowance. Carpet to have minimum 10 year warranty against fiber loss. Next, a 4" flexible vinyl cove base or wooden base needs to be installed along the baseboard.

Refinish Hardwood Floor

First, determine the presence of Lead-based Paint or Lead-based Floor Varnish. Then, inspect floor for protruding nails. Countersink all protruding nails and wood putty holes. Sand entire floor down through all finishes to bare wood using Lead Safe Practices if needed. Avoid gouges, swirl marks and waves. Floor to be of a uniform even surface when sanding completed. Wipe with clean cloth. Apply two coats of polyurethane floor finish, sanding between coats or as required by manufacturers.

Install New Hardwood Floor-Unfinished

Install new common white oak flooring according to manufacturer's specifications. Sand smooth and apply three coats of polyurethane sanding between coats or as required by manufacturer's specifications.

Install New Hardwood Plank or Parquet Pre-Finished Floor

First, install new 3/8" x 3" 3-ply oak plank flooring according to manufacturer's specifications. Next, install new 5/16" x 12" x 12" 3-ply oak parquet flooring according to manufacturer's specifications. Finally, the homeowner shall choose stain color from manufacturer's standard colors.

Gutters, Fascia, Soffit, Trim, and Molding

Remove and dispose of all Rotted Existing Gutters, Trim, Fascia, Soffit and Molding

Remove and dispose of all rotted and damaged sections of gutters, trim, fascia, soffit and molding using Lead Safe Practices if determined necessary.

Replace/Install New Wood Gutters

Install complete new 4" x 6" Spruce or #1 Fir gutter to replace removed rotted items. Work to include all required downspout, extensions and splash blocks. New wood gutters to be properly caulked, oiled and pitched.

Replace/Install New Aluminum Gutter

Install all new 4" x 5" aluminum [.027 gauge] gutter system, properly pitched, according to the manufacturer's specifications. Work to include all required hangers, clamps, connectors, downspouts, extensions and splash blocks. Downspout to be sized according to roof area being drained. Color of gutter system to be selected by owner from manufacturer's standard colors.

Replace/Install New Plastic Gutters

Install all new 4" plastic gutter, properly pitched, and installed according to manufacturer's specifications. Work to include all required hangers, clamps, connectors, downspout, extensions and splash blocks. Downspout to be sized according to roof area being drained. Owner to have choice of color from manufacturer's standard selection.

Replace/Install New Fascia, Trim, Soffit and Molding

Install new fascia, trim, soffit and/or molding [molding to match existing as close as possible] using properly sized galvanized nails. Apply one coat of white, oil-based primer after sealing all knots with a shellac based sealer. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Heating Systems

All heating systems must be installed by licensed technicians. The contractor is responsible for obtaining and paying for permits necessary for installation of the new system and/or disposal of the old system including any hazardous wastes associated with the removal of the old system [such as asbestos coating or insulation].

Removal of Existing Heating System

First, remove defective heating system by dismantling, removing and disposing of the existing boiler or furnace from the premises. Contractor shall be responsible for all permits, fees and costs for the professional removal of any pipe or boiler insulation such as asbestos, which will require added safety measures, removal precautions and disposal fees. Next, there needs to be a professional removal and disposal of asbestos pipe or duct insulation and/or asbestos boiler insulation. Then, repair the walls, floors, ceilings or any other home component damaged or left incomplete as a result of the removal of the heating system radiators, oil tank or any other part of the heating system. Finally, existing, permanently installed, functional electric heaters, floor furnaces or other types of automatic heating systems which will be supplemented by the installation of a new heating unit or system do not need to be removed except in the following instances: The system has asbestos or other hazardous materials on the unit or distribution system, or removal of the system will substantially improve the livability and/or comfort of the home.

Install Forced Hot Air Heating System Gas

First, supply and install one complete new gas-fired, forced hot air furnace of sufficient capacity to heat each habitable room to a minimum of 68 degrees Fahrenheit measured 36 inches off the floor when the outside temperature is -5 degrees Fahrenheit. Furnace will be installed and leveled on 8" concrete blocks to protect the furnace from water damage. Furnace shall be 85 percent AFUE or better. Furnace will have a minimum life of 20 years. Next, they need to install complete new smoke pipe in basement and reuse existing hot and cold air sheet metal ducts. Check duct sizing to ensure adequate heat delivery capacity to all rooms. Seal all duct joints with RDC #6 or equivalent. Install all required safety switches, round dial type thermostat and wiring to service unit. Finally, make all required gas connections to unit. All work to conform to local and state codes. New unit to be complete and operating according to the manufacturer's specifications. Before firing, unit to be inspected by for safety. All operations and maintenance manuals are to be given to the owner.

Install Forced Hot Water Heating System/Gas

First, supply and install one complete new gas-fired, forced hot water boiler of sufficient capacity to heat each habitable room to a minimum of 68 degrees Fahrenheit measured 36 inches off the floor when the outside temperature is -5 degrees Fahrenheit. Boiler will be cast iron and installed and leveled on 8" concrete blocks to protect the boiler from water damage. Next, install complete new flue pipe in basement and all required safety valves, switches, new round dial type thermostat and wiring to service unit. Then, make any necessary repairs to radiators/baseboard radiation to put in good working order. New unit to be complete and operating according to the manufacturer's specifications. All work to conform to local and state codes. Finally, make all required gas connections to unit. Before firing, unit to be inspected for safety by the local gas utility company. All operations and maintenance manuals are to be given to the owner.

Repair Incorrect Radiation Pitch

Repair defective radiator by correcting pitch, blocking legs, bleeding system to ensure proper operation, and re-packing angle valves and/or new venting valves.

Install New Free Standing Radiation

Repair defective/missing heat by installing new cast iron radiator of sufficient capacity to heat room to 68 degrees Fahrenheit. Piping to be done to IBRM and manufacturer's specifications.

Install New Hot Water Baseboard Radiation

Remove defective heating components by removing all free standing radiation and supply lines and disposing. Install new fin type hot water baseboard radiation of sufficient capacity to heat each habitable room to 68 degrees Fahrenheit. Installation to include all necessary valves and trim in accordance with the manufacturer's specifications and the state Plumbing Code.

Install New Electric Baseboard Radiation

Remove defective heating by removing all free standing radiation and disposing. New baseboard shall be able to maintain a temperature of 70 degrees F. at a point of three feet above the floor in all habitable

rooms when the outside temperature is –10 degrees F., without overloading or scorching the walls. New heaters shall be medium density type, limited to 250 watts per foot of baseboard. Where possible, install on outside walls and under windows. Each room or air circulation area shall have only one thermostat.

Install New Space Heating System/Gas-Fired

Supply and install one complete new gas-fired heater sufficient to heat each habitable room to minimum 68 degrees Fahrenheit measured 36 inches off the floor when the outside temperature is –5 degrees Fahrenheit. Install all required safety switches, thermostat and wiring to service unit. Make all required supply connections to gas source [Natural or Propane] according to all local and state codes. Make all required supply connections to Chimney according to all local and state codes.

Repair Existing Cooling Unit

Repair existing cooling unit in accordance to manufacturer’s specifications.

If a comfort cooling system is releasing more than fifteen percent of its charge over the course of a year, the EPA²⁰ requires the system to be repaired (through a leak detection and repair process) rather than repeatedly recharged. If the evaporator coil has numerous leaks or is severely corroded, the contractor should replace the unit and air handler as well.

Replace/Install New Cooling Unit

First, remove defective cooling system by dismantling, removing and disposing of the existing unit from the premises. Contractor shall be responsible for permits, fees and costs for the professional removal of insulation such as asbestos, which will require added safety measures, removal precautions and disposal fees. Install new unit to manufacturer’s specifications and size recommendation for the house to be rehabilitated. Installation to include all necessary wiring and ductwork and must be done in accordance with local codes. Cooling efficiency for air conditioners is indicated by a SEER (Seasonal Energy Efficiency Rating)²¹. The minimum cooling efficiency standard for units installed should be at 10.0 SEER.

Next, if a forced air heating system does not currently exist, ductwork will have to be installed. The existing ductwork must be installed to manufacturer’s specifications, properly sized and free of leaks and obstructions. Repair walls, floors, ceilings or any other home component damaged or left incomplete as a result of the added ductwork. Thermostats to be wall mounted according to local and national electric code.

Insulation

Materials used for insulation shall be of proven effectiveness and adequate durability so as to ensure that required design specifications concerning heat transmission, sound control and fire rating are attained. Insulation in contact with the ground shall be installed so as not to be adversely affected by soil, vermin and water.

²⁰ See [40 CFR Part 82, Subpart F](#) for more details

²¹ See [Appendix C](#) for definition

Install Fiberglass Insulation in Open Areas/New Construction

First, install fiberglass insulation according to manufacturer's specifications. Sidewalls will be insulated to a depth of 3-1/2" for a 2x4 wall and 5-1/2" for a 2x6 wall. Floors will be insulated to a depth of 6". Attics will be insulated to a depth of 12" (two 6" layers with the second layer of fiberglass insulation to be installed perpendicular to the ceiling joists). Next, install Prop-A-Vent at the eave edge of all rafter bays for proper ventilation. Maintain 3" of clearance at all electric motors and recessed light fixtures. Finally, a continuous vapor barrier will be installed on all "winter warm" surfaces.

Install Blown-in Insulation

Existing siding will be removed in a careful manner and saved to be reinstalled after insulation is completed. Insulate sidewall areas by boring holes, filling all areas [including unheated stairwells] with fiberglass or, "class 1" cellulose fiber insulation and installing correct size plug after filling cavity. Use the tube method when possible and the two hole method where necessary. Degree of flammability under 25 and a density of 3.6. Work to be done in accordance with manufacturer's specifications. Contractor will be responsible for patching all holes. Install cap by blowing in fiberglass insulation or, class 1 cellulose fiber insulation to a thickness of 12" according to the manufacturer's specifications. Degree of flammability under 25 and a density of 3.6; settlement of less than 1-1/2" in open attic spaces. Provide adequate cross ventilation by installing louvers, roof vents or turbine ventilators to prevent moisture build-up [1 SF per 150 SF of ceiling area without vapor barrier and 1 SF per 300 SF of ceiling area with vapor barrier].

Install Styrofoam Insulation

Install closed cell Styrofoam insulation according to manufacturer's specifications [Bead board or "open cell" insulation is not acceptable]. Sidewalls will be insulated to a depth of 2". Floors will be insulated to a depth of 4".

Interior Painting and Ceiling and Wall Repair

For all interior paintwork that disturbs a lead paint surface, contractor shall employ the use of lead-safe practices. This type of repair should only be made for non-cosmetic situations such as lead based paint issues, water damage, or other situations where the area is structurally unsound.

Scrape and Paint Ceiling

Scrape peeling paint using lead safe practices, apply bonding agent before patching crack, fill depressions with joint compound and joint tape as necessary, allow to thoroughly dry, sand smooth, and spot prime. All water stains shall be covered with one or more coats of shellac based stain killer. Apply two coats [1 primer coat and 1 finish coat] of washable latex flat ceiling paint [using only high quality, brand name paint] according to manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Replace Acoustical Ceiling Tile

Remove and dispose of defective ceiling. Install new appropriate strapping with common nails. Level new strapping to the greatest extent possible. Apply 12" x 12" scored ceiling tiles over new strapping

according to the manufacturer's specifications. Install new pine 2-1/4" [paint grade or finger jointed] cove molding. Apply two coats [1 primer coat and 1 finish coat] of washable latex semi-gloss paint to the cove molding. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Install New Suspended Ceiling

Remove structurally defective ceiling. Scrape all peeling paint and remove all loose plaster using lead and asbestos safe practices. Install T-bar suspension system with 2' x 4' or 2' x 2' (to homeowner's preference) acoustical panels according to the manufacturer's specifications. Replace existing ceiling light with new 2' x 4' or 2' light fixture with translucent panel and lower to new ceiling height [minimum=7'-6"].

Repair, Patch and Paint Walls

First, repair defective walls by patching removing wallpaper and disposing and taping plaster cracks and voids using lead safe practices. Cracks to be undercut prior to filling. Then, apply bonding agent before patching crack. Sand smooth all rough and patched areas. Next, apply two coats [1 primer coat and 1 finish coat] of washable latex paint with a finishing matching the existing paint [using only high quality, brand name products]. Finally, apply paint according to manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Wash and Paint Walls

First, clean area to be painted by washing thoroughly with TSP [Trisodium Phosphate] and removing all smoke, grease, grime, dirt, etc. using lead safe practices. Allow to dry thoroughly. Next, apply two coats [1 primer coat and 1 finish coat] of washable latex paint with a finish acceptable to the homeowner [using only high quality, brand name products] according to the manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Paint Woodwork

First, repair chipped woodwork by sanding smooth using lead-safe practices. Next, scrape peeling paint, fill depressions with wood putty, sand smooth, and spot prime using lead safe practices. Last, apply two coats [1 primer coat and 1 finish coat] of washable latex semi-gloss paint [using only high quality, brand name paint] according to manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Drywall

Install New Sheetrock [gypsum wallboard] Walls

First, repair defective walls by removing deteriorated sections and disposing using lead safe practices. Next, install new 1/2" sheetrock [gypsum wallboard] fastened to framing using bugle head screws or ring-shanked nails. Then, tape and seal all seams and nail heads using joint compound. Use three coat method. Sand smooth between coats. Finally, sand smooth top coat of joint compound and apply two coats [1 primer and 1 finish coat] of washable flat latex wall paint [using only high-quality, brand named paint] according to manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Install New Sheetrock (gypsum wallboard)/ Ceilings

First, repair structurally defective ceilings by removing deteriorated sections and disposing using lead safe practices. Next, install new appropriate strapping with common nails. Level new strapping to the greatest extent possible. Install new 1/2" sheetrock [gypsum wallboard] fastened to framing using bugle head screws or ring shanked nails. M-R sheetrock [Green board] shall not be used on ceilings. Tape and seal all seams and nail heads using joint compound [U. S. Gypsum or equal]. Use three coat method. Sand smooth between coats. Finally, sand smooth top coat of joint compound and apply two coats [1 primer and 1 finish coat] of washable flat ceiling paint [using only high-quality, brand named products] according to manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks.

Exterior Painting

General Standards

All chipping and peeling exterior lead-based paint shall be stabilized using lead-safe work practices.

Paint Exterior Walls, Trim, Doors, and Sashes

First, repair exterior walls by preparing and painting all exterior walls, porches [railings, columns, ceiling and decking], windows [frames, sashes, and casing], doors [jamb, door, and casing] and trim [fascia, soffit, rake, molding, frieze and water table] to prevent deterioration due to weather. Next, work to consist of all necessary scraping, sanding, caulking, putty, prime painting and one finish coat of paint [using only high-quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. Lead safe practices must be employed in pre-1978 buildings containing lead-based paint. A tinted primer may be necessary depending on the owners color selection. All finishes shall be evenly applied and free from sags, runs, drips, voids, and brush marks. Owner to select color from manufacturer's standard color selection. Sidewalls will receive a flat latex exterior paint and all trim will receive a semi-gloss latex exterior paint. Porch decking to receive a latex floor and deck enamel. A contractor will remove all storm window frames and inserts. Paint sashes and window trim. Caulk all voids and spaces. Replace storm windows using clear caulking. Exterior painting will not be done in rainy, damp, or frosty weather unless surface has thoroughly dried after such conditions. Owner to have choice of color from manufacturer's standard color selection.

Paint Trim and Sashes

First, repair exterior trim by preparing and painting all exterior porches, [railings, columns, ceiling and decking] , windows, doors and trim [fascia, soffit, rake, molding, frieze and water table] to prevent deterioration due to weather. Next, work to consist of all necessary scraping, sanding, caulking, puttying, prime painting and one finish coat of paint [using only high-quality, brand name paint] according to the manufacturer's specifications using a suitable brush or roller. Lead safe work practices must be employed. A tinted primer may be necessary depending on the owners color selection. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks. Owner to select color from manufacturer's

standard color selection. Then, all trim will receive a semi-gloss latex exterior paint. Porch decking to receive a latex floor and deck enamel. Caulk all voids and spaces. A contractor will remove storm window frames and inserts. Paint sashes and trim. Replace storm windows using caulking. Exterior painting will not be done during rainy, damp or frosty weather unless surface has thoroughly dried after such conditions.

Paint Exterior Trim

First, repair exterior trim by preparing and painting all exterior porches [railings, columns, ceiling and decking], windows, doors and trim [fascia, soffit, rake, molding, frieze and water table] to prevent deterioration due to weather. Next, work to consist of all necessary scraping, sanding, caulking, puttying, prime painting and one finish coat of paint [using only high-quality, brand name paint] according to the manufacturer's specifications using a suitable brush or roller. Lead safe work practices shall be employed. A tinted primer may be necessary depending on the owners color selection. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks. Owner to select color from manufacturer's standard color selection. All trim will receive a semi-gloss latex exterior paint. Porch decking to receive a latex floor and deck enamel. Caulk all voids and spaces. Finally, exterior painting will not be done in rainy, damp or frosty weather unless surface is thoroughly dried after such conditions. Owner to select color from manufacturer's standard color selection.

Porches

Replace Existing Porch

Remove and dispose of existing porch from top to bottom level using lead safe work practices. Maintain existing roof rafters, sheathing and roofing. Excavate hole for 8" round concrete forms with footing to a depth below frost line [approximately 4']. Fill round concrete form with 3,000 psi concrete and allow drying thoroughly. One hole for each vertical member. One galvanized post base anchor for each vertical member. Install complete new porch using 4" x 4" standard grade pressure treated lumber for vertical columns and girts, include all required trim. Install new 2" x 8" standard grade pressure treated floor joists at each level; include 8" aluminum cap flashing between joists and siding. Next, all new decking using 1-1/4" x 6" standard grade pressure treated decking or similar acceptable material should be installed. Contractor will repair any siding damaged during porch repair. Then, install new handrail using 2" x 4" standard grade pressure treated top and bottom rails, 2" x 2" standard grade pressure treated balusters spaced 5" O.C. and standard grade pressure treated posts. A new standard grade pressure treated lattice work using 1" x 6" standard grade pressure treated lumber to conceal all ends of the lattice should be installed. In addition, new stairs using notched 2" x 12" standard grade pressure treated stringers, 1" x 8" standard grade pressure treated risers and 2" x 6" standard grade pressure treated treads, set on concrete pad should be installed. Porches shall be structurally sound, reasonably level, with smooth even surfaces and have a 10-year life expectancy.

Install New Columns/Corner Posts/Girts

First, remove and dispose of existing column(s), corner posts and girts using lead safe work practices.

Next, excavate hole for 8" round concrete tube with footing to a depth below frost line [approximately 4']. Fill round concrete tube with 3,000 psi concrete and allow to dry thoroughly. One hole for each vertical member. One galvanized post base anchor for each vertical member. Finally, install new standard grade pressure treated columns, corner posts or girts of the same approximate size as originals.

Replace/Install New Deck

First, replace flooring by removing and disposing of existing decking and floor joists. Next, install new 1-1/4" x 6" standard grade pressure treated decking over new 2" x 8" pressure treated floor joists (installed 16" O. C.) including 8" aluminum cap flashing between joists and siding. Then, re-install existing handrail and existing steps. Finally, replacement decks shall be structurally sound, reasonable level, with smooth and even surfaces and shall have a life expectancy of 20 years.

Install New Decking Over Existing Joists

Repair decking by removing and disposing of existing decking. Then, install new 1-1/4" x 6" standard grade pressure treated decking over existing floor joists. Include 8" aluminum cap flashing between joists and siding.

Repair Latticework

Repair defective latticework by removing broken/damaged portions and disposing. Install new 2" x 4" standard grade pressure treated framing to prevent movement by new lattice. Next, a new standard grade pressure treated latticework using 1" x 6" standard grade pressure treated lumber to conceal all ends of the lattice should be installed.

Install New Brick/Block Piers

Remove existing pier(s) and dispose. Construct new pier(s) using 16" x 16" x 8" concrete footings and 12" x 12" pier(s). Use new brick or 12" concrete blocks to fit and support overhead structure. All work to be done in accordance with building code.

Masonry

Repair Masonry Foundation

First, repair loose and broken foundation wall by removing loose bricks. Tuck point outer walls by raking joints to a depth of 3/4" and wetting work. Then, replace brick in new mortar or patch holes with new mortar. Mortar shall be mixed to match existing as close as possible. Care will be taken not to use an overly hard mortar mix that will cause the bricks to break after hardening. Mortar shall conform to Brick Institute of America [B.I.A.] standards. Finally, finish joints to have a concave surface [or match existing style]. Repair shall have a minimum life of 10 years.

Repair Concrete Walk

Repair existing concrete walk. Patch hole by breaking up defective sections, leveling earth, and tamping broken concrete in place. Pour in new 3,000 psi concrete patches to meet existing level. Wood float/broom finish.

Rebuild Chimney

First, remove all bricks down to roof line, save bricks for reuse. Rebuild chimney using new and used bricks. Install new lead flashing. Then, finish all mortar joints to a concave surface [or match existing style]. Care will be taken not to use an overly hard mortar mix that will cause the bricks to break after hardening. Mortar shall conform to Brick Institute of America [B.I.A.] standards. Next, install a new chimney cap. New chimney cap shall be at least 4 inches thick at the outside edge and shall slope away from the flue. Repaired/rebuilt chimney shall have a life expectancy of 15 years.

Tuck-point Chimney

Repair chimney by raking joints to a 3/4" depth and wetting work. Tuck-point bricks with new mortar to match existing as close as possible. Care will be taken not to use an overly hard mortar mix that will cause the bricks to break after hardening. Mortar shall conform to Brick Institute of America [B.I.A.] standard specification for Portland cement-lime mortar for brick masonry (M1-88). Finish joints to have a concave surface [or match existing style].

Remove Chimney

Remove unused chimney to below roofline and dispose. Block remaining flue with mortar and brick. Close in opening where chimney was removed with jack rafters [sized to match existing], 1/2" CDX plywood sheathing/or 3/4" boards [to match existing] and new roofing [match existing as close as possible].

Repair Concrete Retaining Wall

General: New walls shall be structurally sound and durable. Walls shall be designed to resist the lateral pressure exerted by the earth behind the wall including the material above the top of the wall. Masonry walls shall be constructed in accordance with the recommendations of the National Concrete Masonry Association. They shall have a 6 inch wide layer of gravel, crushed rock or sand between the earth and the wall, extending the full height of the wall. Block shall be set in mortar beds with joints tooled smooth, except where the exposed surface is to be parged. Reinforce block laterally and vertically where needed and fill cavities containing reinforcement with mortar. Place weep holes 10 feet on center, and at the lowest point possible above grade. All weep holes shall be screened. The top course shall contain a bond beam or be capped to provide a finished surface. All retaining walls constructed to a public way shall have the design approved by the local planning/public works department prior to commencement of work. Repair defective retaining wall by removing deteriorated sections and disposing. Excavate below frost line to undisturbed soil and pour new footings using new 3,000 psi concrete. Form and pour new concrete wall using new 3,000 psi concrete with weep holes and #6 [or size required by code] reinforcement rods [rebar].

Repair Concrete Block Retaining Wall

General: New walls shall be a minimum of 8 inches thick and shall have poured in place concrete footings no less than 6 inches thick that extend below finish grade as required by the particular installation. Block face shells shall provide a 1-1/2 inch wide mortar bed. The first course shall be set in a full mortar bed. Joints shall not exceed 3/4 inch and shall be tooled smooth, except those on an exterior face being parged. The joints between wall and footing shall be tight and have a cove of elastic caulking compound on the

exterior side. Stack bond shall be laterally reinforced every second course. Provide other reinforcement where needed, or specified. Location of control joints shall be determined by the height of the wall. The top course shall be filled or capped with at least four inches of solid masonry or wire mesh reinforced concrete, unless the sill plate board rests on both inner and outer face shells. Anchor bolts shall be placed no more than 6 feet on center and extend through sill and cap and two filled courses. Walls shall be bonded, keyed, or anchored to existing and intersecting walls. Porch and entrance slabs and areaways shall be anchored to the wall. All openings in the wall shall be covered with at least one coat of Portland cement parging no less than 3/8 inch thick. Walls shall have at least one coat of bituminous damp proofing material from the footing to finish grade. Backfill material shall be an appropriate sand gravel mixture for proper soil drainage. The top three inches shall be topsoil suitable for plant growth. Replace sod or install new sod unless otherwise specified. Repair defective retaining wall by removing deteriorated sections and disposing. Excavate below frost line to undisturbed soil and pour new footings, using new 3,000 psi concrete. Construct new wall using 8" x 8" x 16" concrete blocks set in new mortar; provide weep holes and cap for top of wall.

Plumbing

First, all materials, piping, fittings, fixtures, etc., shall conform to the latest ANSI (American National Standards Institute), ASTM (American Society for Testing and Materials), CS (Commercial Standards) and FS (Federal Specifications) standards. All equipment and materials used shall be new and clearly marked to permit identification of manufacturer, model and type. The contractor shall furnish all permits, instruments, gauges and equipment required for testing and shall perform those tests required by the related authorities (local and state code). Equipment, materials or work found to be defective during testing shall be replaced by new work and be retested until proven satisfactory. All replacement sewer, water, or gas systems shall be installed complete and, if necessary, final connections shall be made to the sewer main, gas meter, or water meter.

Next, all equipment and items installed shall operate safely, without leakage, undue noise, vibration, corrosion, or water hammer. All fixtures shall be securely supported so that no strain is placed on the connected piping. All work, fixtures and materials shall be protected at all times. All service and supply lines installed in a location where freezing may occur shall be insulated with closed cell foam insulation or wrapped with fiberglass batt insulation without vapor barrier. When a rough in for new equipment requires connections to the existing plumbing system, the contractor shall obtain necessary data on locations, sizes, connections, fittings and arrangements needed to ensure proper installation of that equipment. All drilling, cutting and patching necessary for a proper installation of work shall be done by the contractor. All patching shall be of the same materials, workmanship and finish as the original work and shall accurately match all surrounding work. All work shall be done without damage to structural members. Sleeves shall be provided where required and upon completion of rough in work. Sleeves shall be made sound and fire tight. Penetration of stud and masonry walls, floors and ceilings shall be fire stopped.

Finally, all joints and connections in the plumbing and drainage systems shall be gas and watertight for the pressures required by the test of the system, with the exception of those portions of piping which are installed for the purpose of leading ground or seepage water to the underground storm drains. The contractor shall be required to wet test all plumbing systems at the expected working pressure of the system after repair and/or replacements have been made. Existing plumbing systems, or portions thereof, including building sewers (side sewers), to remain in use shall operate free of fouling and clogging and shall not have cross-connections which may cause contamination of the water supply by back-siphonage. Gas lines shall be blown clean with compressed air, and all valves and filters shall be checked. Repaired plumbing fixtures shall have a life expectancy of several years and replacement plumbing fixtures shall have a life expectancy of 20 years.

Repair Basement Water Supply Main

First, remove all defective supply piping in basement and dispose. Then, install complete new water supply main from meter to floor using 3/4" type 'L' copper piping complete with all required fittings, hangers and shut-offs according to local and state plumbing codes.

Replace Water Piping

Remove existing pipes and dispose. Install new piping using 1/2" [or larger to match existing] type 'L' copper complete with all required fittings, hangers, and shut-offs according to the local and state plumbing codes.

Repair Drain/Waste/Vent System

First, repair drain, waste, and vent system by removing defective sections and disposing. Next, install all new pipes and fittings in accordance with local and state plumbing codes. All above ground sanitary waste and drainage piping shall be approved schedule 40 PVC pipe. Finally, repaired systems shall have a minimum life of fifteen years. Replaced components shall have a minimum life expectancy of 20 years.

Install New Washing Machine Hook-Up

First, install separate drain and hot and cold water hook-ups for washing machine. Next, drain to be 1-1/2" schedule 40 PVC, properly trapped, vented and tied to stack in accordance with the local and state plumbing codes. Finally, water supply lines to be 1/2" type 'L' copper with appropriate shut-offs.

Repair Blocked Soil Pipe.

First, repair blocked soil pipe/storm drains by cleaning out blockage. Next, use electric roto-rooter; check sewer lines for damage.

Install New Sump Pump

Repair water condition in basement by constructing new barrel sump with 6" base of compacted gravel. Install new automatic sump pump complete with all required wiring and discharge hose. Locate sump for maximum effectiveness and make all necessary alterations for proper water discharge-water not to be directed into sanitary sewer lines.

Replace Gas Piping

First, repair defective and obsolete gas piping to entire structure by disconnecting and capping all

obsolete gas lines. Next, re-pipe all [existing/new] gas stoves using 3/4" black iron gas piping. All piping to be concealed where possible. Finally, a contractor will make all required repairs to walls, floor and/or ceilings to match existing. All work to be done in accordance with local and state plumbing codes. Work to be inspected for safety by local gas utility before initial firing.

Install New Sink and Wood Base Unit

First, remove existing kitchen sink, trap, and defective piping and dispose. Then, install new drop-in double bowl sink with complete metal basket strainer assembly according to the manufacturer's specification and the local and state plumbing codes. Install new chrome plated single lever faucet [using only high-quality, brand named products] according to the manufacturer's specification and the local and state plumbing code. Additionally, a new 1-1/4" PVC trap, 1/2" copper pipes, shut-offs and associated trim need to be installed. Finally, install new wood base unit with post-formed plastic laminate counter-top and backsplash. Owner to choose cabinets and countertop from manufacturer's standard selection. Unit to be as plumb and level as existing conditions allow. Caulk all seams between countertop and wall with the appropriate caulking.

Replace Drain and Trap

Remove defective drainage piping and trap and dispose. Then, install new 1-1/4" [bath]/ 1-1/2" [kitchen] PVC trap and metal tailpiece to put fixture in good operating and sanitary condition.

Install New Faucet- Kitchen

Remove existing faucet on kitchen sink and dispose. Then, install new chrome plated faucet [single lever/two lever/twins [to match existing] with metal connections according to the manufacturer's specification and the local and state plumbing codes. [Unit to be brand name known for quality].

Install New Faucet - Bathroom

Remove existing faucet on bath lavatory and dispose. Then, install new chrome plated faucet [single lever/two lever or twins [to match existing] with metal connections according to the manufacturer's specification and the local and state plumbing codes [Unit to be brand name known for quality].

Install New Shower Hardware

Remove existing shower valve and dispose. Then, install new chrome plated faucet [single lever/two lever or twins [to match existing] with metal connections according to the manufacturer's specification and the local and state plumbing codes. Work to include shower head and/or tub spout, if specified [Unit to be brand name known for quality].

Install New Toilet

Remove existing toilet and dispose. Then, install new freestanding 1.6 gallon toilet complete with new seat, shut-off valve and all required trim and piping according to the manufacturer's specification and the local and state plumbing codes. Unit to be brand named and high-quality. Caulk all seams between lavatory and floor surface.

Install New Handicapped Toilet

Remove existing toilet and dispose. Then, install new freestanding 18" vitreous china toilet complete with

new seat, shut-off valve and all required trim and piping. Caulk all seams between lavatory and floor surface.

Install New Wall Hung Lavatory

Remove existing lavatory unit and dispose. Then, install new wall hung lavatory with new faucet-[single lever/two lever or twins] [to match existing], 1-1/4" chrome trap, two chrome shut-off valves and all associated trim. Caulk all seams between lavatory and wall surface.

Install New Handicapped Wall Hung Lavatory

Remove existing lavatory unit and dispose. Then, install new wall hung vitreous china lavatory. Install new faucet with wrist paddles and goose neck riser or equal. Work to include 1-1/4" handicapped chrome trap, two chrome shut-off valves and concealed arm carrier. Caulk all seams between lavatory and wall surface.

Install New Vanity

Remove existing lavatory unit and dispose. Then, install new one piece cultured marble lavatory in new 20" freestanding vanity according to the manufacturer's specification and the local and state plumbing codes. Vanity and lavatory to be high-quality and brand named. Additionally, installation should include new faucet [single lever/two lever/twins] [to match existing], 1-1/4" PVC trap, two shut-off valves and all associated trim. Lavatory and faucet to be high-quality and brand named.

Install New Bathtub/Shower Unit

Remove existing bathtub and dispose. Then, install a new 5' recessed fiberglass tub with complete shower facilities according to the manufacturer's specification and local and state plumbing codes. Finally, a new chrome plated shower valve [single lever/two lever] [to match existing] should be installed. Work to include low flow shower head and tub spout, shower rod and all associated trim. Caulk all seams between the fixtures and all surfaces.

Install New Handicapped Bathtub

Remove existing bathtub and dispose. Then, install new 60" fiberglass tub with complete shower facilities according to the manufacturer's specification and the local and state plumbing codes. Finally, a new pressure balanced chrome plated shower valve should be installed. Work to include shower head, tub spout, hand held shower head, shower rod and all associated trim. Caulk all seams between fixtures and other surfaces.

Install New Handicapped Shower Unit

First, remove existing bathtub/shower unit and dispose. Next, install new 48" fiberglass according to the manufacturer's specification and the local and state plumbing codes. Finally, a new pressure balanced chrome plated shower valve should be installed. Work to include low flow shower head, tub spout, hand held shower head, shower rod and all associated trim. Caulk all seams between fixture and other surfaces.

Install New Three Piece Bathroom

First, remove existing plumbing and fixtures and dispose, including floor, fixtures and piping throughout

bathroom. Next, install a new 4" and 1-1/2" schedule 40 PVC drain and waste lines and 3" vent piping, complete with all fittings and traps. Then, install a new 1/2" type 'L' copper water supply lines with shut-off valves at all fixtures. Other installations include:

A new freestanding 1.6 gallon toilet complete with new seat, shut-off valve and all required trim and piping according to the manufacturer's specification and the local and state plumbing codes. Caulk all seams between lavatory and floor surface with caulking.

A new one piece cultured marble lavatory in new 20" freestanding vanity according to the manufacturer's specification and the local and state plumbing codes. Installation to include new single lever chrome faucet [being a high-quality, brand name unit], 1-1/4" trap, two shut-off valves and all associated trim. Owner to select vanity top color from manufacturer's standard colors.

A new 5' recessed fiberglass tub with complete shower facilities according to the manufacturer's specification and the local and state plumbing codes. Owner to select fixture color from manufacturer's standard colors.

A new chrome plated single lever shower valve. Work to include low flow shower head and tub spout. Then, install a shower rod and all associated trim. Caulk all seams between the fixture and all surfaces.

Install New One Piece Shower Stall

First, install a new 36" x 36" fiberglass shower stall according to the manufacturer's specification and the local and state plumbing codes. Caulk all seams between fixture and floor. Then, a new chrome plated single lever shower valve lever should be installed. Work to include low flow shower head, shower rod and all associated trim.

Install New Built-up Shower Stall

First, repair shower by constructing new shower stall receptor using 2" x 4" studs [#2 or better] and 1/2" M-R sheetrock [Greenboard]. Frame opening for plywood access door to plumbing fixtures. Next, tape and seal all seams and nail heads using joint compound - three coat method. Finally, finish walls using 4-1/2" x 4-1/2" glazed ceramic tiles with all required trimmers using thin set method. Installation to include new chrome, single lever, non-scald valve and connection to all supply lines and drains. Caulk all seams between the fixture and all surfaces.

Install New Diverter

Remove existing diverter and dispose. Install new anti-scald type diverter with all associated trim. Contractor will repair walls to match existing.

Convert Claw foot Bathtub to Bathtub/Shower

Install new Portofino add-a-shower. If Construction or Retrofit Required for Tub or Shower Installation:

Frame in end of bathtub using 2 x 4 Spruce plates and studs (16" O. C.) and 1/2" M-R [Greenboard] sheetrock. Frame opening for plywood access door to plumbing fixtures.

Tape three coats and sand smooth between coats.

Apply two coats [1 primer and 1 finish coat] of washable flat latex wall paint [using high-quality, brand name paint] according to the manufacturer's specifications using a suitable brush or roller. Finish coat to be ProMar 200 latex flat wall, Devoe. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks. Owner to select fixture color from manufacturer's standard colors.

Install New Electric Hot Water Heater

First, remove existing hot water heater and dispose. Then, install new 30 / 40 / 50 gallon electric hot water heater according to the manufacturer's specifications and the local and state plumbing codes. Unit to have all required cold water shut-off valves, vacuum relief valves, and self-closing temperature and pressure relief valves. Make all required electrical connections. If new installation, heater to have separate circuit breaker.

Install New Gas Hot Water Heater

First, remove existing hot water heater and dispose. Then, install new 30/40/50 gallon gas hot water heater according to the manufacturer's specifications and local and state plumbing codes. Unit to have all required cold water shut-off valves, vacuum relief valves, and self-closing temperature and pressure relief valves. Make all required connections to gas supply lines. Unit to be inspected by local utilities for safety before firing.

Install New Sprinkler Head over Boiler/Furnace

Install new sprinkler head over the existing boiler/furnace and connect to the nearest domestic water line according to local and state plumbing codes.

Roofing and Sheathing

Prior to starting work, the contractor shall examine the roof to determine that all repairs affecting roofing have been completed as scheduled.

When new metal chimney, vent stack, roof vent, etc., are scheduled to be installed, the contractor shall cooperate with other contractors in installing flashing and counter flashing. This contractor shall also install new flashing in place of all damaged, deteriorated or missing flashing incidental to the repair or new installation. New flashing shall be installed in all valleys. The contractor shall seal all roof openings and exposed roof edges, chimneys, porch roofs, dormers, skylights and vents, with plastic asphalt cement as needed to ensure watertight joints. Roofing shall be applied in accordance with the recommendations of the manufacturer. Once it has been started, the roof application shall not be delayed, except when absolutely necessary due to inclement weather. Each layer of roofing felt shall have been surfaced or glazed by the end of the working day. Should inclement weather arise it is the responsibility of the contractor to provide adequate protection of the structure and its contents.

When a new roof is installed, roof vents shall be installed to provide adequate ventilation in all attic areas. New roofing installation shall conform to the requirements for the Underwriter's Laboratories, Inc. Class C label; a copy of the guaranteed fire classification shall be provided to the owner. New roofing material shall have a minimum 25 year manufacturer's guarantee. When existing roofing is brittle, badly

cupped, or rotted, new material shall not be placed over existing.

The quality of materials and workmanship for repairs shall meet the same standards as new installation. The contractor shall make repairs or replacements needed to roofing, flashing, drip edges, cant strips, gravel stops, etc., to provide a water proof installation and replace asphalt-saturated felt when removing damaged sections of existing roofing. Color, size and texture and type of new roofing material shall match existing as closely as possible. Roof shall be structurally sound and shall not cause leakage of roof or walls.

Other general repair standards include the use of fiberglass asphalt, 3 tab, and Class A shingles weighing at least 200 and up to 240 lbs. with a prorated 25 year warranty with continuous ridge vent.

Strip Off Existing Roofing/Install New Strip Shingles

First, remove existing roofing down to sheathing. Then, repair defective sheathing with new sheathing [match existing boards or CDX plywood]. Allow for replacement of 10 percent of total roof area. Finally, lay down 15# Felt according to the manufacturer's specifications. Install 8" aluminum drip edge at eave edge and rake. Install 3' wide ice and water shield at eave edge and all valleys. Use an approximate 12" wide strip of ice and water shield under existing or new chimney flashing to counter flash chimney flashing. Install new asphalt 3-tab strip shingles-235# per square using roofing nails [staples are not to be used]. Shingles to have a 25 year warranty. Work to include all necessary metal flashing. Shingles to carry National Underwriter's class 'C' label. All valleys are to have the shingles weaved together.

Install New Asphalt Shingles over Existing Roof

Repair defective roof by installing new asphalt 3-tab strip shingles - 235# per square using roofing nails [staples are not to be used]. Shingles to have a 25 year warranty. Shingles to carry National Underwriter's class 'C' label. Work to include 8" aluminum drip edge, caulking with roof cement and / or replacement of all flashing.

Install New Tar and Gravel Roof

Repair defective flat roof by removing tar and gravel roofing down to base sheet and disposing. Apply new three-ply tar and gravel roof over new buttoned felt base sheet using fasteners recommended by the manufacturer. Install new aluminum edge cleat. Finished surface shall be composed of three successive layers of 15#felt impregnated with hot asphalt or hot coal tar with a final layer in which roofing gravel is imbedded. Replace all metal flashing and shoes on stacks. Approx.

Install New Balled Roof

Remove defective flat roof down to base sheet and dispose. Repair all breaks and bares with patches of 15# felt nailed down with fasteners recommended by the manufacturer and sealed with hot asphalt. Install new metal edge cleat. Apply three successive layers of 15# felt impregnated with hot asphalt. Cover entire area with flood coat of hot pitch.

Install New Rolled Roofing over Existing\Roofing

Repair pitched roof covered with rolled roofing by applying new 90# double coverage rolled roofing over existing roofing using roofing nails [staples are not to be used]. Use new aluminum edge flashing at

gutters. Roofing material to be installed in accordance with manufacturer's specifications including roof cement and blind nailing.

Strip Off Existing Roofing/Install New Membrane Roof

First, repair defective flat roof by removing roofing down to base sheet and disposing. Install a fully adhered elastomeric sheet with membrane underlay over existing substrate. Install flashing around vents, pipes and chimney as per manufacturer's recommendations. Install new membrane to new roof drain. Then, replace broken pipes as necessary. Roofing contractor shall be responsible for all work at roof area, including flexible sheet roofing system and new metal cap flashing. These systems shall be completely integrated and provide a watertight roof assembly. Next, obtain primary flexible sheet roofing from a single manufacturer. Provide secondary materials as recommended by manufacturer of primary materials. Install flexible sheet roofing in order to minimize seams and to accommodate contours of the roof deck and proper drainage across shingled laps of sheets.

Next, install flexible sheet roofing as per manufacturer's recommendations. Mechanical fasteners, flashing and counter flashings and accessories at locations should be installed as specified by manufacturer. Provide tapered cants, crickets and other areas of tapered insulation as may be required by roof manufacturer for positive drainage. Flexible sheet roofing material shall be of high-quality not less than 60 mils. Warranty period shall not be less than 10 years after date of substantial completion to repair/replace defective materials and workmanship, 25 years for membrane. Roofing contractor shall provide owner with certificate that the warranty has been purchased and that the warranty seal has been installed on the roof by the manufacturer's representative, if available.

Repair Flashing and Valleys

Repair pitched roof by installing new lead sheet base flashing to chimney. Repair or renew valleys and any necessary work to put roof into first class shape. Provide owner with one year guarantee.

Patch Tar and Gravel Roof

Repair flat roof by patching existing roofing by scraping to base sheet. Apply three ply tar and gravel roof with connection to old roof. Install new flashing where needed and any further required work. No Guarantee. Approx.

Strip Off Existing Roofing/Install New Metal Roofing System

First, remove existing roofing down to sheathing and dispose. Replace any defective sheathing [match existing plywood or boards] using galvanized common nails. Allow for replacement of 10 percent of the total roof area. Panels shall be a min. of [18", 16", or 12"] wide with a [1" thin seam batten or 1-1/2" box seam batten]. Minimum Thickness: Panel to meet all specified design loads, but not less than 0.023 inches (24 Gauge). Metal roof panel system shall be suitable for the roof slope and the underlayment. Design loads shall be as specified by building code, design standard or as indicated on the contract.

Then, install metal roofing and related components in accordance with manufacturer's printed instructions. Fasten panels with concealed metal anchor clips at each side joint that are designed to allow for thermal movement of the panels. There shall be no exposed fasteners except at panel fixing line and

flashing details or as indicated on approved panel drawings. Install trim, closures, caps and accessories as indicated or required for complete weather tight installation. Protect surfaces in contact with cementitious materials and dissimilar metals with application of bituminous paint. Allow to dry prior to installation. Seal and place gaskets to prevent weather penetration.

Siding

Install New Wood Siding

First, repair siding by covering all sidewalls with new siding using existing siding as an underlayment. Clapboards will be installed at 4" exposure [to the weather] and shingles will be installed at 5" exposure [to the weather]. Siding to be installed in accordance with the manufacturer's specifications using galvanized nails [aluminum or stainless steel for Red Cedar]. Lead safe practices shall be employed when disturbing painted surfaces. Install new Pine molding [prime painted] as required.

Next, apply two coats [1 primer and 1 finish coat] of exterior flat paint [using only high-quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks. Apply two coats [1 primer and 1 finish coat] of exterior solid stain [using only high-quality, brand named paint]. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Aluminum Siding

Repair siding by installing new aluminum siding to entire structure. Prepare walls by re-nailing existing siding to provide smooth surface. Lead safe practices shall be employed when disturbing painted surfaces. Install new 1/4", 3/8" fanfold underlayment extruded Polystyrene insulation according to the manufacturer's specifications. All joints will be sealed with contractor sheathing tape. All cuts at windows and doors will be cleanly cut and closely fitted. Double four (8") or double five (10") aluminum siding shall be installed with all required trimmers in accordance with the manufacturer's specifications. Siding to be properly grounded in accordance with the National Electric Code.

Install New Vinyl Siding

First, repair siding by installing new vinyl siding to entire structure. Prepare walls by re-nailing existing siding to provide smooth surface. Lead safe practices shall be employed when disturbing painted surfaces. Then, install new 1/4", 3/8" fanfold underlayment extruded Polystyrene insulation according to the manufacturer's specifications. All joints will be sealed with contractor sheathing tape. All cuts at windows and doors will be cleanly cut and closely fitted. All required Spruce laths or starter strips should be installed as well. Next, double four (8") or double five (10") vinyl siding shall be installed in accordance with manufacturer's specifications. Owner to select color from manufacturer's standard colors. Work to include all starter strips, J molding and corner boards. Exterior window sills, jambs and header will be covered with white aluminum coil stock using color coordinated nails. Finally, install new ventilated vinyl soffit, aluminum coil stock fascia and rake to entire roof line according to the manufacturer's

specifications.

Repair Wood Cornice and Moldings

Repair wood cornice by removing rotted/defective soffit boards, rake boards and molding and dispose. Lead safe practices shall be employed. Install new using common galvanized nails. Apply one coat of Shellac based sealer to all knots. Additionally, two coats [1 primer and 1 finish coat] of exterior flat paint according to the manufacturer's specifications using a suitable brush or roller need to be applied. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Stairs and Rails

Install Complete New Interior Stairs

Remove existing stairs and dispose using lead safe practices if existing stairs are painted. Install new stairs using notched 2" x 12" Spruce stringers, 1" x 8" Pine risers and 10-1/2" Hard Pine treads, set on [existing] concrete. Additionally, a new 2" x 4" Spruce top and bottom handrail, 2" x 2" Spruce balusters spaced 5" O. C. And 2" x 4" Spruce post-anchored to solid footing need to be installed. Sand smooth edges of 2" x 4" Spruce to reduce splintering. Apply two coats [1 primer and 1 finish coat] of interior paint [using only high-quality, brand name products] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Replace Railings and Balusters

Replace defective/missing railings by installing all new wood rails, balusters, and posts to provide a safe railing according to the International Building Codes. Apply one coat [1 primer coat] of interior solid stain [using only high-quality, brand named products] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, holidays and brush marks.

Replace Defective/Missing Balusters

Repair defective/missing balusters by installing new Pine or Birch balusters-match existing as close as possible. Apply two coats [1 primer and 1 finish coat] of interior semi-gloss paint [using only high-quality, brand named products] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Secure Wall Hung Railing

Repair wall hung rail at stairs by blocking framing members top properly secure brackets or install new clear Pine backing secured to framing members and re-install rail to new Pine. Apply Shellac based sealer to all knots. Apply two coats [1 primer and 1 finish coat] of interior semi-gloss paint [using only high-quality, brand named products] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Basement Handrail

Install a new 2" x 4" Spruce [on flat] handrail and 2" x 4" Spruce post-anchored to solid footing. Sand smooth edges of 2" x 4" spruce to reduce splintering. Apply two coats [1 primer and 1 finish coat] of interior flat paint [using only high-quality, brand named products] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Handrail

Remove existing hand rail and dispose. Install new 1-1/2" oval Fir handrail. Install brass handrail brackets spaced to provide adequate support. Apply two coats [1 primer and 1 finish coat] of interior semi-gloss paint [using only high-quality, brand named products] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Exterior Wood Steps

Remove existing wood steps and dispose. If existing steps are painted, use lead safe practices to remove and dispose. Install new wood steps using notched 2" x 12" standard grade pressure treated stringers, 2" x 6" standard pressure treated treads and 1-1/4" x 6" standard grade pressure treated risers. Steps to bear on concrete slab at grade. Tread and riser ratio to conform to BOCA building code. Install new handrail using 2" x 4" standard grade pressure treated top and bottom rails, 2" x 2" standard grade pressure treated balusters spaced 5" O.C. and 4" x 4" standard grade pressure treated post. Post to be lag bolted to stringers to provide adequate support for post.

Install New Concrete Steps

Remove existing defective steps and dispose. Excavate below frost line and pour new footings using new 3,000 psi concrete containing rebar of sufficient size [#6 minimum] to support new steps. Construct new plywood forms and pour concrete steps using 3,000 psi concrete. Broom finish. Tread and riser ratio to conform to BOCA building code.

Install/Replace Brick Steps

Remove existing steps and dispose. Install new concrete brick steps, set on new footings using new 3,000 psi concrete containing rebar of sufficient size [#6 minimum] to support new steps and capped with new bricks. Tread and riser ratio to conform to BOCA building code. Point bricks with new mortar to match existing as close as possible. Care will be taken not to use an overly hard mortar mix that will cause the bricks to break after hardening. Mortar shall conform to Brick Institute of America [B.I.A.] standard specification for Portland cement-lime mortar for brick masonry (M1-88). Finish joints to have a concave surface [or match existing style].

Install New Wheel Chair Ramp

Wheel chair ramp must be installed in accordance with the American National Standards Institute (ANSI) ICC/ANSI A117.1-98 which addresses Accessible and Usable Buildings and Facilities. Ramp runs shall have a running slope not steeper than 1:12. Exception: Ramps in or on existing buildings or facilities shall be

permitted to have slopes steeper than 1:12 complying with the table below where such slopes are necessitated by space limitations.

Slope	Maximum Rise
Steeper than 1:10 but not steeper than 1:8	3 inches (75 mm)
Steeper than 1:12 but not steeper than 1:10	6 inches (150 mm)

A slope steeper than 1:8 shall not be permitted.

Cross slopes of ramp runs shall not be steeper than 1:48. The clear width of a ramp run shall be 36 inches (915 mm) minimum.

The rise for any ramp run shall be 30 inches (760 mm) maximum.

Ramps shall have landings at bottom and top of each run. Landings shall have a slope not steeper than 1:48 and clear width of landings shall be at least as wide as the widest ramp run leading to the landing.

Landing length shall be 60 inches (1525 mm) minimum clear. Ramps that change direction at landings shall have a 60 inch (1525 mm) minimum by 60 inch (1525 mm) minimum landing.

Ramps with a rise greater than 6 inches (150mm) shall have handrails complying with Section 505 of ICC/ANSI A117.1-98. Handrails shall not reduce the required clearances of a ramp run or landing.

Edge protection shall be provided on each side of ramp runs and at each side of ramp landings.

Bathroom Walls, Cabinets and Vents

Install New Ceramic Wall Tile

Repair walls by installing new first quality glazed ceramic wall tile to 4' around walls and 5' above top rim of tub over 1/2" M-R sheetrock, cement panel or approved equal, according to the manufacturer's specifications. Tile to be 4-1/2" x 4-1/2" with all necessary trimmers and ceramic accessories. Use thin set method. Owner to select from manufacturer's standard color selection of tile and grout.

Walls above tile will be painted. Apply two coats [1 primer and 1 finish coat] of interior semi-gloss paint [being of high-quality brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Laminated Hardboard Walls

Repair walls by installing new laminated hardboard with waterproof adhesive including all required trim. Installation to be done in accordance with manufacturer's specifications. Owner to select from manufacturer's standard color selection.

Install Lighted/Unlighted Medicine Cabinet (see following Note)

Remove existing medicine cabinet and dispose. Install new surface mounted/recessed medicine cabinet

with integrated incandescent/fluorescent light/bar connected to a wall switch. Owner to have selection of cabinet up to \$225.00 allowance. Next, a new surface should be mounted/recessed non-lighted medicine cabinet. Owner to have selection of cabinet up to \$150.00 allowance.

Note: Generally, this type of repair is considered cosmetic. This type of repair is justified in cases such as water damage or accessibility issues.

Install New Mechanical Vent

Provide adequate bathroom ventilation by installing new mechanical ventilation fan and metal or vinyl ductwork connected to proper wall switch. Ventilation to meet requirements of local and state building codes. Unit must be vented to the exterior of the structure not into attic or crawl space.

Doors

Install New Exterior Door

Remove existing front/rear door, jamb and casing and dispose using lead safe work practices. Install new pre-hung 6 panel or 9-lite metal door with metal threshold and casing both sides [1" x 4" select Pine casing on the exterior and interior]. Door to be high-quality and energy efficient chosen by the homeowner from the manufacturer's standard selections. Next, a fiberglass insulation between door jamb and framing and latex caulk where specified by the manufacturer's instructions should be installed. Do not overstuff cavity and bind door. Work to include key-in-knob lockset and a deadbolt. Apply two coats [1 primer and 1 finish coat] of exterior/interior paint [being high-quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Interior Door

Remove existing interior door and dispose. Employ lead safe practices if interior door is painted. Install new [6-panel Pine/6-panel Masonite/flush Luan hollow core] pre-hung, split-jamb door. 1" x 4" Pine/Colonial/Clamshell casing [finger jointed material allowed] to be installed on two sides. Work to include lockset. Apply two coats [1 primer and 1 finish coat] of interior semi-gloss paint [using high-quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Install New Interior Door on Existing Jamb

Remove existing interior door and dispose. Use lead safe practices if door or existing jamb is painted. Install new wood door [style to match existing as close as possible] on new 4-1/2" x 4-1/2" hinges in existing frame. Lead safe practices shall be employed. Work to include new lockset. Apply two coats [1 primer and 1 finish coat] of interior semi-gloss paint [using only high-quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids and brush marks.

Rehang Existing Door

Repair existing door by rehangng door on new hardware 4-1/2" x 4-1/2" hinges. Fit and adjust door to operate properly. Lead safe practices shall be employed when rehangng door that is painted or if jamb/frame is painted.

Install New Hardware

Repair defective door by replacing all missing/defective hardware including lockset.

Install New Storm Door

Remove existing storm door and dispose. Repair entrance to make weather tight by installing new white, vinyl clad, wood core, or solid wood self-storing storm door. Door to be selected by homeowner.

Install New Weather Stripping

Repair front/rear door by weather stripping with exterior metal weather stripping.

Repair Broken/Cracked Storm Door Glass

Remove broken panes on door and clean rabbet. Install new tempered safety glass with points and new putty or insert with rubber spline or gasket, or molding to match original. Putty to be as smooth and even as possible.

Miscellaneous

Install New Post

Remove defective or temporary post(s). Use lead safe practices if existing post is painted. Excavate and install new 12" x 12" x 8" concrete footing(s). Install new 3-1/2" concrete filled columns with all necessary steel plates.

Install New Sill(s)

Repair existing sill(s) by shoring area and remove rotted/broken members. Use lead safe practices if existing sill is painted. Install new standard grade pressure treated sill(s).

Install New Center Girder

Repair defective center girder by shoring area and removing rotting / broken sections. Install new spruce/standard grade pressure treated lumber. Joists shall bear on a minimum of 3-1/2" on new work.

Install New Ceiling Supports

Repair ceiling framing by installing two permanent 3-1/2" columns with all necessary steel plates on new 12" x 12" x 8" concrete footings. Install one new 4" x 8" header using construction grade lumber.

Install New Wood Bulkhead

Repair defective bulkhead by rebuilding doors and frame with new pressure treated lumber and galvanized hardware. Apply two coats [1 primer and 1 finish coat] of exterior semi-gloss paint [using only high quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids, holidays, and brush marks.

Install New Metal Bulkhead

Remove existing bulkhead doors, frame and curb. Install new concrete curb [at top of existing] to fit and install new metal bulkhead according to the manufacturer's specifications. Apply two coats [1 primer and 1 finish coat] of exterior flat paint [using only high-quality, brand named paint] according to the manufacturer's specifications using a suitable brush or roller. All work to be done in accordance with the manufacturer's specifications. All finishes shall be evenly applied and free from sags, runs, drips, voids, holidays and brush marks.

Repair Water in Foundation/Basement-Interior

Excavate 12" x 8" trench on the inside perimeter of the foundation. Install 4" perforated pipe tied into the floor drain. Fill trench with crushed rock level to floor surface.

Repair Water in Foundation/Basement-Exterior

Excavate trench on the outside perimeter wall down to the footing. Apply one coat of asphalt foundation coating to the foundation wall according to the manufacturer's specifications using a suitable brush or roller below existing grade level. Install one layer of 6 mil black polyethylene over the new foundation coating. Backfill trench with excavated material, compact with portable plate compactor. Additional backfill material will be compatible with existing soil conditions. Cover with 3" of loam and rake level. Apply new grass seed [type selected by local nursery] at a rate specified by the seed manufacturer.

Remove Rubbish and Debris

Remove rubbish and debris caused by rehabilitation activities from property and dispose. Remove all unused materials and debris from worksite.

Driveway Paving

Excavate driveway area to a depth 9" below existing grade, as determined by grade stake along the perimeter of the driveway. Backfill excavated area with 6" [compacted depth] of 3/4" gravel. Compact gravel with portable vibrating plate compactor or 10 ton roller. Entire drive way shall be crowned and pitched for positive drainage. Apply an even layer of 3/4" crushed stone. Then, a 2" base coat of bituminous asphalt should be applied. Roll smooth with roller. Additionally, a 1" top coat of bituminous asphalt should be applied. Roll smooth with roller. Approximately four weeks after application of finish coat, apply a coat of jet sealer to entire new driveway according to the manufacturer's specifications.

Locking Devices

Locking devices at doors and windows shall be as follows:

Each exterior doorway and each doorway leading to garage areas, common hallways, terraces, balconies, or other areas affording easy access to the premises shall be protected by door which, if not a sliding door shall be equipped with a deadlock using either an interlocking vertical bolt and striker, a minimum of 1.2 inch throw deadbolt or a minimum ½ inch throw self-locking dead latch. Locks shall not require the use of a key for operation from the inside; and

All sliding doors, first floor and basement windows and windows opening into stairways, fire escapes, porches, terraces, balconies or other areas affording easy access to the premises shall be equipped with a

locking device. A sliding door used as a main or service entrance shall be equipped with a keyed locking device.

Locks shall meet or exceed the performance criteria of ANSI A156.2-89 for the series and grades as follows:

Living unit entrance doors, series 4000, grade 2; and

Doors within living units, series 4000, grade 3.

Three butt hinges shall be used on all exterior doors.

Asbestos

Asbestos Removal-Basement

Pre-clean entire basement. Remove all asbestos insulation from heating pipes and boilers. Additionally, all asbestos contaminated rubbish and debris and dispose at a legal disposal site needs to be removed. Work to be performed by a licensed asbestos abatement contractor according to all applicable federal, state and municipal codes. A copy of the final air quality report will be turned over to the rehab specialist. Existing steam boilers to be removed by asbestos contractor. Units to be drained of water, all electrical disconnected and fuel oil line disconnected by plumbing contractor, prior to removal by asbestos contractor. Asbestos contractor to nail strap hanger [provided by plumbing contractor] in place after removal of pipe covering for any or all steam pipes.

Air quality Testing-Asbestos Abatement

A visual inspection and air quality samples shall be taken according to current state law by an independent testing facility. Testing facility shall coordinate testing with the asbestos contractor to minimize delays. Also, the testing facility shall report its results to the asbestos contractor immediately upon completion of the testing, whether the tests are positive or negative. The owner of the building will be furnished with a copy of the test results.

Construct New Interior non-bearing Wall

Construct new interior non-load bearing wall using 2" x 4" Spruce [#2 or better] studs and plates. Studs to be spaced 16" on center. Door opening shall be made according to the BOCA building code. Headers shall be made according to the BOCA Building Code.

Kitchen Cabinets

Kitchen cabinet replacement will generally be considered cosmetic and is not allowed. Only situations such as water damage, lead abatement, or accessibility issues are allowed.

Install new base cabinets

Remove existing base cabinets and dispose. Install new wood base cabinets according to manufacturer's specifications. Cabinets are to be installed as plumb and level as existing conditions allow. Owner to select from manufacturer's standard flat panel cabinet line. Scribe kickboard to allow level installation. Cabinets to have a solid wood front and particle board sides. Additionally, new post formed countertop [owner to have choice of countertop color/pattern] with 4" backsplash according to manufacturer's

specifications should be installed. Apply silicone caulking at wall/countertop seam.

Install new wall cabinets

Remove existing wall cabinets and dispose. Install new wood wall cabinets [match existing as close as possible]. Cabinets are to be installed as plumb and level as existing conditions allow. Owner to select from manufacturer's standard flat panel cabinet line. Cabinets to have a solid wood front and particle board sides. A new kitchen counter top can be installed as well. Kitchen cabinet replacement will generally be considered cosmetic and is not allowed. Only situations such as water damage, lead abatement, or accessibility issues are allowed. Remove existing countertop and dispose. Finally, install new post formed countertop with 4" backsplash according to manufacturer's specifications. Owner to select from manufacturer's standard color/pattern selection. Install color coordinated end caps, if required. Re-install existing sink, using silicone caulking, and existing faucet. Test installation to ensure that no leakage occurs. Apply caulking at wall/countertop seam.

Install New Kitchen Counter Top

Kitchen cabinet replacement will generally be considered cosmetic and is not allowed. Only situations such as water damage, lead abatement, or accessibility issues are allowed. Remove existing countertop and dispose. Install new post formed countertop with 4" backsplash according to manufacturer's specifications. Owner to select from manufacturer's standard color / pattern selection. Install color coordinated end caps, if required. Re-install existing sink, using silicone caulking, and existing faucet. Test installation to ensure that no leakage occurs. Apply caulking at wall / countertop seam.

APPENDIX

Appendix A – Program Documents

Before any funds can be released, all required grant documents must be completed and received by MHDC. All documents must be submitted in the [Grant Interface](#). Grantees with multiple HeRO grants must submit required documentation for each grant (i.e., agencies cannot submit one of each required document for multiple HeRO grants).

Required Documents for the HeRO program:

Grant Agreement Packet

- Grant Agreement
- Workforce Eligibility Affidavit
- E-Verify Memorandum of Understanding (MOU)
- Rider A: Additional Representations, Covenants and Warranties by Sub-grantee and MHDC
- Rider B: Identity of Interest Restrictions
- Rider C: Federal Funding Disclosure

Reservation Submission Packet includes the following:

- MHDC Form 400 - Homeowner Application (information completed in the grant interface)
- MHDC Form 410 - Initial Inspection
- MHDC Form 420 - Work Write-up/Cost Estimate
- MHDC Form 425 - Income Eligibility Verification with copies of applicable income documentation
- Appraisal showing current value and project after-rehabilitation value
- Before Pictures
- Proof of Homeownership – Deed to include the full legal description

Environmental Submission Packet includes the following:

- MHDC Form 415 A – Contamination and Toxic Substance Worksheet
- MHDC Form 415 B – Site-Specific Field Contamination Checklist
- MHDC Form 415 C – Floodplain Management Worksheet
- MHDC Form 415 D – Noise Abatement and Control Worksheet
- MHDC Form 415 E - Airport Hazards Worksheet
- MHDC Form 415 F – Flood Insurance Worksheet
- SHPO (Section 106 Review)

Site Contact Form (Completed in the grant interface)

Contractor Submission Packet includes the following:

- HeRO Contractor Qualification Guidance

- HeRO Contractor Application Checklist

- HeRO Form 435 - Contractor Application

- HeRO Form 440 - Debarment Certification

- Contractor's Authority to do business in Missouri

- Contractor license or equivalent or \$20,000 performance bond

- Proof of insurance to include all of the following:

 - Liability in a minimum amount of \$150,000

 - Worker's Compensation (or exemption if sole proprietor)

 - Automobile

- EPA Lead-Safe Certified Renovation firm

- Lead Abatement Certification

Regulatory Agreement signed by all homeowners

- MHDC Draw Request Form

All forms can be found [here](#).

Appendix B – Sources and Resources

[24 CFR 92.254\(b\) \(1\) and \(2\)](#): Code of Federal Regulations (CFR) Subtitle A (4-1-10 Edition)

[24 CFR Part 882](#): Section 8 Moderate Rehabilitation Programs

[HOME Income Limits](#): HUD FY 2022 Income Limit Search tool

[HOME Homeowner Rehabilitation Law, Regulations, and Notices](#): HUD Exchange homepage for the HOME Homeowner Rehabilitation Program

[MHDC HeRO](#): MHDC's webpage for the HeRO Program

[MHDC Compliance Guidance](#): MHDC's library of compliance resources

[Grant Interface](#): MHDC's Grant Interface software

[2-1-1 Missouri](#): United Way's database for homelessness resources in Missouri

Appendix C – Definitions

FIRMette

A section of a flood insurance rate map (FIRM) developed by the Federal Emergency Agency (FEMA) that can be created online by selecting the desired area from an image of a FIRM. The FIRMette also includes the map title block, north arrow, and scale bar. Please visit the [FEMA Flood Map Service Center](#) for more information.

Living Trust

A trust that is created and funded during the settlor’s lifetime (as opposed to their death). See [12 CFR Part 745.4](#) for more details.

Major Systems

According to [24 CFR Part 92.251 \(b\) \(ii\)](#), a major systems are defined as “structural support; roofing; cladding and weather proofing (e.g., windows, doors, siding, gutters); plumbing; electrical; and heating, ventilation, and air conditioning.

Maximum Property Value

The value of a home after rehabilitation which may not exceed 95 percent of the area median purchase price for the county within which the property is located, as determined by HUD.

Non-Metropolitan Area

A non-metropolitan area is defined by MHDC as any area or community in Missouri located outside the city limits or boundaries of Columbia, Kansas City, Springfield, St. Louis City, and St. Louis County.

Seasonal Energy Efficiency Ratio (SEER)

[According to the U.S. Department of Energy](#), the seasonal energy efficiency ratio (SEER) is the ratio of the total heat removed from the conditioned space during the annual cooling season divided by the total electrical energy consumed by the air conditioner during the same season.

Sub-Grantee

With respect to the environmental responsibilities under ESG-CV, a recipient under the program. As a direct recipient of the state, MHDC will act as the Responsible Entity.