



# General Conditions, Performance Requirements & Standards

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## GENERAL CONDITIONS

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## ARTICLE 1. PURPOSE and SCOPE

The purpose of these General Conditions, Performance Requirements and Standards is to provide and make a part of each Contract certain terms and conditions and minimum standards of quality of workmanship and materials expected and required. It is intended that these minimum standards shall prevail except when in conflict with, or less-stringent than City, County, State or Federal Regulations or Codes. They shall be a part, either by inclusion or reference, of each Contract entered into with loan assistance obtained through Portland Housing Bureau's Neighborhood Housing Team for housing rehabilitation.

## ARTICLE 2. DEFINITIONS

- a. **"The Contract"** consists of the signed Bid and Proposal, these General Conditions, Performance Requirements and Standards, all approved modifications of those documents incorporated in the documents before their execution, and any drawings or other supporting materials pertinent to the Bid Price, as accepted by the Owner in agreement to do certain work in exchange for a certain Bid Price.
- b. **"The Proposal"** is the description and estimate of work proffered by a Contractor.
- c. **"Loan Agreement"** is the Loan Agreement between the Owner and PHB.
- d. **"Bid Price"** is the Contractor's cost to the Owner for work accepted.
- e. **"PHB"** means Portland Housing Bureau, Neighborhood Housing Team section.
- f. **"Notice to Proceed Letter"** letter issued by PHB to inform owner and contractor that work may now begin.
- g. **"Contractor"** includes the following:
  1. **"Owner-Contractor"** is a person owning property to be rehabilitated and who assumes the responsibility of engaging subcontractors to furnish all permits, supply materials, services or labor to complete all or part of the work to be done, or who obtains permits and purchases or supplies materials to be installed by the Owner's labor or the labor of the Owner's immediate family or casual labor as defined in ORS Chapter 701. The Owner-Contractor accepts the terms and conditions as set forth in the General Conditions, Performance Requirements and Standards where he is obtaining permits and installing materials through his labor, casual labor or that of his immediate family.
  2. **"General Contractor"** is a firm properly licensed by the Oregon Construction Contractors Board who has met PHB's minimum requirements and is engaged by the Owner to furnish all permits, materials, services or labor necessary for completion of the Contract. The General Contractor accepts the terms and conditions as set forth in these General Conditions, Performance Requirements and Standards.

3. **“Subcontractor”** is a person or firm properly licensed by the Oregon Construction Contractors Board who has met PHB’s minimum requirements and is engaged by the Owner or General Contractor to furnish permits, materials, services or labor necessary for the completion of a portion of the Contract. The Subcontractor accepts the terms and conditions as set forth in these General Conditions, Performance Requirements and Standards. Subcontractors are exempt from work required in sections identified as ‘General Contractors’.
- h. **“Owner”** is the fee owner of the property to be rehabilitated, or in the case of property sold on contract, the contract vendee. In the case of multiple owners, the term ‘Owner’ will designate the plural.
- i. **“Site Inspections”** A Site Inspection is an on-site review of the property.

Prospective Contractors are instructed to visit the site where the work is to be undertaken and to make themselves fully aware of the existing conditions. They should reasonably determine what the job involves, and if there are any restrictions or difficulties which might affect their performance under the terms of the Contract. Prospective Contractors should thoroughly study and understand the rehabilitation worklist, drawings and specifications (if any), and all other contract documents. Failure to do these things cannot be used as an excuse or reason for non-performance once the Contract is executed. The submission of a Bid Price shall be evidence of a Contractor’s having become acquainted with the site and willingness to conform to code all project requirements without additional compensation.

- j. **“Superintendent”** The Superintendent is the designee of the Contractor who will act as contact person for the Contractor and assume responsibility for the project.

When submitting a bid, the Contractor shall furnish the Owner and PHB with the name and telephone number of one official who will represent and be responsible for the Contractor and his Subcontractors in the execution and conduct of their work.

### **ARTICLE 3. CHANGES in the CONTRACT**

The Owner and Contractor, with written approval and acceptance of PHB, may make changes in the Contract, including changes in time for performance, by altering, adding to or deducting from the contract work, with the resulting contract sum being adjusted accordingly in writing. All such changes shall be executed using an appropriate Change Order form. No waiver, expressed or implied, of this provision by an Owner shall be deemed a waiver of this provision by PHB, as PHB has entered into its Loan Agreement with the Owner solely to cover work expressly described in the Contract. Change Orders which have not been consented to by PHB in writing shall not be binding on PHB for any purpose. The Contractor is directed to avoid side agreements with the Owner for additional work or materials over and above the original Contract. In the event that a Contractor and Owner enter into a side agreement, PHB shall not be liable for enforcement or payment of any work not included in the accepted Contract or approved Change Order.

#### **ARTICLE 4.** NOTICE TO PROCEED

If and when applicable a project has existing paint chips in the soil; “all paint chips must be removed from the soil the first week of receiving the “Notice to Proceed Letter”, along with a written note for the file from the contractor that states the paint chips have been removed.”

Time is of the essence of the Contract.

#### **ARTICLE 5.** DELAYS and EXTENSIONS of TIME

If the Contractor is delayed at any time in the progress of the work by an act or by neglect of the Owner, or by changes in the work, or by labor disputes, fire, unusual delay in transportation, or by any other unavoidable cause which justifies the delay through no act or fault of the Contractor or anyone employed by him, the time of completion may be extended for a reasonable time.

The time of completion may also be extended for the benefit of the Owner, if such extension is reasonable and necessary and will not work a hardship on the Contractor.

A time extension for any of the reasons set forth above must be in writing and signed by both parties.

All requests for time extension shall be made within ten (10) days of the event(s) giving rise to the need for an extension of time or the delay will be deemed not valid.

An extension of time in which to complete work shall be the sole and exclusive remedy of the Contractor, and in lieu of any claim for damages caused by such delay, and the Contractor, by entering into the Contract incorporating these General Conditions, expressly waive any and all claims for damages arising out of such delay.

#### **ARTICLE 6.** OWNER’S RIGHT to STOP WORK or TERMINATE CONTRACT

Upon written notice to the Contractor and PHB, the Owner may unilaterally terminate the Contract for any of the following reasons:

- a. Contractor’s insolvency, bankruptcy or any conduct or condition which has resulted in a monetary loss to a homeowner in connection with contract work, or which reasonably threatens any such loss.
- b. Contractor’s lack of, or untimely performance of work specified in the Contract.
- c. Contractor’s failure to carry out work to quality standards of materials and workmanship, as specified in “ARTICLE 29” and "ARTICLE 31".

#### **ARTICLE 7.** CONTRACTOR’S RIGHT to STOP WORK or TERMINATE CONTRACT

If the work is stopped by the Owner, or by order of any court or public authority, for a period exceeding thirty days through no act or fault of the Contractor or of anyone employed by him, the Contractor may, upon seven days written notice to the Owner and PHB, terminate the Contract and recover from the Owner payment for the reasonable value of all work completed.

**ARTICLE 8.** CORRECTION of WORK BEFORE SUBSTANTIAL COMPLETION

The Contractor shall promptly remove from the premises all work which fails to conform to the Contract, promptly correct all work failing to conform to the Contract, and bear the expense of making good all work or materials destroyed or damaged by such correction.

**ARTICLE 9.** DEDUCTIONS for UNCORRECTED WORK

If the Owner and PHB decide it is impractical to correct work which is unacceptable because the work did not conform to the terms and conditions of the Contract, a reasonable deduction from the contract sum shall be determined by PHB. If this is not agreeable by all parties, arbitration will decide the matter, as it will decide the party (or parties) responsible for paying for the cost of arbitration.

**ARTICLE 10.** PAYMENTS

The Owner shall designate, and the Contractor acknowledges PHB as its agent for the purpose of making payments under the Contract.

- a. Upon such authorization by the Owner of the Contract work and approval of that work by PHB, payments are to be released to the Contractor for satisfactorily completed work. Contractor shall deliver to the Owner an invoice for payment setting forth the completed work for which payment is requested, and such other evidence of the Contractor's right to payment such as Waiver of Liens, Manufacturers Warranties, Permit Inspections as PHB as lender may, in its sole discretion, require.
- b. Within five (5) business days of receipt of invoice, owner is to authorize payment to the Contractor for the Contract work. PHB, acting on its own behalf as lender, may inspect the work to determine that the Contract terms have been met, and that both the quality of materials and standards of installation labor are what is reasonably expected to be prevalent in the trades.
- c. A retainage of up to 10% of any payment may be held pending completion of the work if either the Owner or PHB determines reasonable cause for such action.
- d. Where an Owner is an Owner-Contractor, payments may be made for materials and casual labor if:
  1. a Payment Request has been made by the Owner to PHB; and
  2. in the case of materials, the materials have been delivered to the job and have been satisfactorily installed; or, in the case of labor, the labor has been satisfactorily performed; and
  3. receipts and invoices are provided itemizing the items, including labor to be paid for; and
  4. where deemed necessary, the Owner or PHB or the Contractor may authorize a multi-party check.

## **ARTICLE 11. PAYMENTS WITHHELD**

If for any reason Owner disagrees with the invoice or disputes work completed, Owner must notify contractor within three (3) business days of receipt of said invoice.

The Owner may withhold payments to the Contractor, in whole or in part, to the extent necessary to protect the Owner from harm on account of:

- a. defective work
- b. any claim filed by a Contractor, Subcontractor, laborer, equipment supplier or material man, or reasonable evidence indicating probable filing of any claim
- c. a reasonable doubt that the Contract can be completed for the balance then unpaid
- d. failure of the Contractor to make payments properly to Subcontractors or for materials, labor or equipment rental.

## **ARTICLE 12. LIENS**

Final payment under the Contract shall not become due until the Contractor, when requested, has provided a complete release of all liens or rights to lien arising out of the Contract from their own doing, or from Subcontractors, including laborers and material suppliers who have served notices of right to lien on the Owner's property. If any such entity refuses to deliver a release of lien, the Owner may withhold payment in accordance with Article 11. If any lien is filed, the Contractor shall obtain and file a bond or other security in lieu of bond as allowed pursuant to ORS 87.076 for the purpose of lifting the lien from the subject property. The Contractor shall be responsible to comply with the notice and filing requirements of ORS 87.078 - 87.088. Should foreclosure suit be filed, the Contractor will indemnify and hold harmless the Owner and PHB for all money that the Owner and/or PHB may be compelled to pay in discharging or defending against such a lien, including all costs and reasonable attorney's fees.

PHB retains authority to reimburse the Contractor for work performed in accordance with industry standards of quality of materials and workmanship, notwithstanding the Owner's objection to the payment, if such payment is necessary to protect PHB's security interest in the property from liens, and if the work and its cost have been authorized by all three parties under the Contract.

## **ARTICLE 13. SURVEYS**

The Owner shall furnish all surveys unless otherwise specified.

## **ARTICLE 14. USE of PREMISES**

The Owner shall permit the Contractor to use, at no cost to Contractor, existing utilities such as lights, heat, power and water in a reasonable manner, as necessary, to the carrying out and completion of the work, and the Owner will cooperate with the Contractor to facilitate the performance of the work, including arranging for the Contractor to work with a minimum of interruption and distraction.

The Contractor shall confine his tools, the storage of materials and the operations of his workmen to limits indicated by law, ordinances, permits or directions of the PHB and shall not unreasonably encumber the premises with his materials.

The Contractor shall not load or permit any part of the structure to be loaded with a weight which will endanger the safety of persons or property.

#### **ARTICLE 15.** PROTECTION of WORK and PROPERTY

The Contractor shall protect all his work and the Owner's property from injury or loss arising in connection with the Contract and its performance. The Contractor shall make good any such damage, injury or loss, unless caused by the Owner, or due to causes beyond the Contractor's control and responsibility. The Contractor shall adequately protect adjacent property as provided by law and the Contract.

The Contractor shall take all necessary precautions for the safety of employees on the work, and shall comply with all applicable provisions of Federal, State and Municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. He shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the public.

In an emergency threatening or involving personal injury or damage to Contract work, the Contractor, without special instruction or authorization from the Owner or the PHB, is hereby permitted to act at the Contractor's discretion to prevent such.

**Working Conditions:** Where dwellings to be rehabilitated are furnished and occupied by Owners, Contractors shall make themselves aware of and allow in the Bid Prices for whatever reasonably-considered inconvenience is incurred (i.e. working around furniture, adjusting working hours to accommodate Owner's daily routines, etc.). The Contractor shall protect all manner of belongings affected by the work, passages and hallways shall be kept clear of debris, lumber or equipment, and construction debris and waste will not be introduced as a persisting hazard to the property.

**Containments:** The Contractor shall at all times prevent the contamination of non-work areas by dust and debris that is generated by work under the Contract. The Contractor shall employ work methods that minimize the generation of dust and debris, and erect a physical barrier ("Containment") between work and non-work areas. Acceptable procedures for constructing Containments are located in the field guide *Lead Paint Safety* (HUD-1779-LHC) published by the Department of Housing and Urban Development and ordered from the National Lead Center at 1-800-424-5323.

#### **ARTICLE 16.** CONTRACTOR'S LIABILITY INSURANCE

In compliance with the appropriate provisions of the Oregon Revised Statutes, the Contractor (except Owner-Contractors) shall maintain public liability and property damage insurance covering the contract work as performed by the Contractor, any Subcontractor, and anyone directly or indirectly employed by the Contractor or any Subcontractor. In addition, any Contractor performing interim controls or abatement work on projects that have been identified as having lead hazards, shall maintain pollution control liability insurance covering the contract work as performed by the Contractor, any Subcontractor, and anyone directly or indirectly employed by the Contractor or any Subcontractor. The Contractor's Certificate of Liability Insurance will have a pollution liability rider of \$1,000,000 naming PHB as additional insured.

## **ARTICLE 17. PROPERTY INSURANCE**

If required by the PHB, Contractor shall purchase and maintain property insurance upon the contracted work to full replacement insurable value thereof, without reduction for depreciation. This insurance shall include interests of the PHB, Contractor, Subcontractors and Sub-subcontractors in the work, and shall insure against direct perils of physical damage from all risk of physical loss, including earthquake, flood, inundation and subsidence, and shall include damages resulting from inferior workmanship and/or faulty materials.

## **ARTICLE 18. WARRANTIES**

- a. The Contractor hereby warrants all Contract work and materials, and agrees to correct any defects due to faulty materials or workmanship and pay for any damage to other work resulting there from, which shall appear or which reasonably should have been discovered within a period of one year from the date of the final payment. For defects which could not reasonably have been discovered within one year, the warranty period shall be three years from the date of final payment. The Owner shall give notice to the Contractor of observed defects with reasonable promptness.
- b. Warranties for roof installations and exterior painting shall extend to three years.
- c. The Contractor agrees to furnish the Owner with all manufacturer's, suppliers and subcontractor's written guarantees and warranties covering labor, materials and equipment furnished under the Contract.

## **ARTICLE 19. NOTICES**

The Contractor is responsible for issuing the Owner with all required notices, including the pamphlet *Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools*, required by the Environmental Protection Agency, and the *Notice of Right to Lien* required by the Construction Contractors Board. Both the Contractor and the Owner-Contractor are responsible for issuing the proper notices to neighbors when it is appropriate in performing lead reduction work.

## **ARTICLE 20. LICENSES, CODES, REGULATIONS and PERMITS**

- a. **License Required** - All contractors, except owner/contractors, engaged to supply materials, services or labor necessary to perform any portion of the Contract shall be properly licensed as may be required by City, County, State or Federal Regulation.
- b. **Codes and Regulations** - All repairs, alterations, materials and methods of construction must comply with applicable City and State building regulations, codes or ordinances (S.B.C., U.M.C., N.E.C., O.S.P.S.C. and P.P.P.I.), with all applicable laws and regulations of other governing bodies, and all applicable permits and inspections must be obtained by the Contractor or Owner-Contractor



- c. **Permits Required** - Obtaining permits authorizing certain work to be done as set forth in the Contract and as may be required by the City of Portland Bureau of Buildings' Regulations and/or other governing bodies, shall be the responsibility of the Contractor or Owner-Contractor, as applicable. All inspections required by these permits shall be arranged for by the permit applicant. If any work should be covered up prior to required inspections, such work must, if required, be uncovered for examination at the Contractor's or Owner-Contractor's expense.

## **ARTICLE 21.** SUBCONTRACTS

The Contractor shall not be required to employ any Subcontractor against whom he has a reasonable objection.

The Contractor agrees that he is as fully responsible to the Owner for the acts and omissions of his Subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

The Contractor is responsible for the repair to all surfaces or structural members damaged by his/her subcontractors (e.g., the repair of holes caused by the installation of electrical or plumbing work, etc.).

The Contractor agrees to bind every subcontractor to the terms of the Contract, including both the Bid and Proposal and these General Conditions, Performance Requirements and Standards.

## **ARTICLE 22.** ASSIGNMENT

The Contractor shall not assign his right under the Contract without approval of the Owner and the PHB, and documented through a properly executed Change Order.

## **ARTICLE 23.** PHB's STATUS

Wherever PHB is referred to herein, the PHB's status is as herein described. PHB has loaned money under a Loan Agreement for the purpose of financing the improvements or rehabilitation of the property, and will obtain a security interest in the property to secure repayment of that loan. The PHB also provides technical assistance to the Owner for the purpose of remedying code violations and improving housing. To protect the PHB's security interest, and to provide technical assistance, the PHB may make periodic visits to the site to familiarize itself with the progress and quality of the work, and to determine in general if the work is proceeding satisfactorily and in accordance with the terms of the Contract. The PHB may inspect all work and materials as it deems necessary, and holds the right to reject any work failing to conform to the requirements of the Contract, and upon such rejection may elect to not advance funds to the Owner with which the Owner intends to pay the Contractor. The PHB shall have authority to act on behalf of the Owner only to the extent expressly provided in the Contract, the Loan Agreement, or otherwise in writing. There is no contractual relationship between the Contractor and the PHB.

**ARTICLE 24.** PHB’s DECISIONS

The PHB shall be, in the first instance, the interpreter of the terms of the Contract and the judge of their performance; and, within a reasonable time after receipt of any request for interpretation of judgment in writing, shall make decisions in writing on all claims or other matters relating to the execution and progress of the Contract work.

**ARTICLE 25.** DISPUTE RESOLUTION

At the request of either party the PHB will assist in resolving disputes between the Owner and the Contractor relating to the Contract work or documents. If the PHB determines, after attempting mediation, that a dispute is not resolvable without direct third party intervention, the parties may seek their respective legal remedies.

**ARTICLE 26.** NON - DISCRIMINATION

During the performance of this Contract, the Contractor agrees as follows:

- a. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, marital status or national origin. The Contractor shall take affirmative action to ensure that all applicants and employees are treated without regard to their race, color, religion, sex, age, marital status or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or
- b. transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training. When requested, the Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices provided by the PHB setting forth the provisions of this non-discrimination clause.
- c. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, marital status or national origin.
- d. The Contractor shall cause the foregoing provisions to be inserted in all subcontracts so that such provision shall be binding upon each Subcontractor, provided that the foregoing provisions shall not apply to contracts or sub-contracts for standard commercial supplies or raw materials.

**ARTICLE 27.** CLEAN UP

The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by work of employees or Subcontractors. At the completion of the daily work he shall remove all his rubbish from and about the building, remove tools, scaffolding and surplus materials, and shall leave the work “broom-cleaned” or its equivalent, unless more specifically stated in the Contract. In the case of either disputes or emergency situations where accumulation of rubbish causes a hazard, after giving reasonable notice to the Contractor the Owner reserves the right to remove the rubbish and charge the reasonable cost of such removal to the Contractor.

The Contractor shall at all times prevent contamination of non-work areas by dust and debris that is generated by work done under the Contract. The Contractor shall employ work methods that minimize the generation of dust and debris, and erect physical barriers ("Containments") between work and non-work areas. Acceptable procedures for constructing Containments are located in the field guide *Lead Paint Safety* (HUD-1779-LHC) published by the Department of Housing and Urban Development and ordered from the National Lead Center at 1-800-424-5323.

Unless more specifically stated in the Contract or otherwise approved by the Owner:

- a. If all work surfaces to be disturbed have been identified as free of lead-based paint, the Contractor shall remove from the premises all rubbish from and about the dwelling, remove tools, scaffolding and surplus materials, and shall leave the premises 'broom-cleaned' or its equivalent.
- b. If surfaces to be disturbed have either been identified or presumed to contain lead-based paint, the Contractor shall remove all rubbish from and about the dwelling, remove tools, scaffolding, surplus materials and Containments, and shall clean all work areas in preparation for Clearance testing, using the appropriate methods and HEPA vacuuming, as appropriate. Acceptable cleanup methods are located in the field guide *Lead paint Safety* (HUD-1779-LHC) published by the Department of Housing and Urban Development and ordered from the National Lead Center at 1-800-424-5323.

## **ARTICLE 28. MEASUREMENTS**

Verification for accuracy of all measurements, including those given to the Contractor by either the Owner or the PHB for the purposes of estimating the Bid Price, shall be the responsibility of the Contractor.

It is assumed that the Contractor will place materials (such as fencing) according to code requirements. If the Owner insists on the specific placement of materials that violate code standards and the situation is required to be corrected, the Contractor shall be responsible to remove and rearrange the materials at his own expense. If the Owner insists on the placement of materials that do not violate code standards, and the situation is required to be corrected, the Contractor shall not be held responsible to remove and rearrange the materials at his own expense (see Article 13).

## **ARTICLE 29. QUALITY**

**MATERIALS:** The Contractor must furnish all materials, equipment and cartage within the Bid Price which may be necessary to the satisfactory execution of the Contract, unless specific terms are otherwise included in the Contract. All materials used and installed are assumed to be new and of standard or better quality, unless specific terms are otherwise included in the Contract.

These General Conditions, Performance Requirements and Standards are not intended to exclude any products or materials of equal or greater merit than those specified herein. Trade names used herein are solely for the purpose of establishing the quality of materials or products desired. Substitutions for products or materials initially agreed upon in the Contract must be executed using a Change Order.

**LABOR:** All labor furnished by Contractors and/or Subcontractors must be performed to reasonable industry standards by competent craftsmen. Their use and presence must conform to the regulations as

set by the Construction Contractor Board and the Occupational Safety and Health Administration. The Owner reserves the right to have personnel who are deemed to not be performing their services in an acceptable manner removed from the job-site.

Labor performed by the Owner or the Owner's immediate family must also meet minimum acceptable quality and safety standards if their work is any part of the agreement with the PHB, even if no payment for their labor is involved with their work.

### **ARTICLE 30.** PLANS, PERMITS and NOTICES

It is assumed that the Contractor is professional and knowledgeable regarding when permits are required for contracted work, and that permits will be obtained, when applicable, for certain work including, but not limited to, plumbing, electrical, mechanical and structural repairs. It is the Contractor's responsibility to obtain permits from the permitting agency when necessary, and it is assumed that the cost of such permits for work within the scope of the Bid And Proposal has been included in the Bid Price.

It is assumed that the Contractor is professional and knowledgeable regarding when notices are required for contracted work, and that such notices will be provided, when applicable, for certain working including, but not limited to, lead reduction work. It is the Contractor's responsibility to provide notices to the appropriate party or agency when necessary, and it is assumed that the cost of such notices for work within the scope of the Bid and Proposal has been included in the Bid Price.

Unless specifically stipulated in the Contract as an additional charge, any plans required to complete the contracted work are assumed to be included in the Bid Price and will be furnished by the Contractor to the permitting agency. In cases where it was not initially evident that plans or permits were required, PHB may use discretion to allow any additional costs to be included in the project.

When plans are required, it is the Contractor's responsibility to have the plans approved by the Owner before acceptance of the Proposal.

### **ARTICLE 31.** PROJECT COMPLETION

The project will be considered complete when these conditions have been met:

- a. all work on the accepted Contract, and on all approved Change Order(s) altering the scope of work, has been satisfactorily performed; and
- b. the materials, stated and implied, used in the performance of the work conform to the terms of the Contract; and
- c. all installation labor has been performed and executed within reasonable standards of quality and workmanship; and
- d. the work area is reasonably restored to its original condition, unless otherwise stated in the Contract, and all construction debris has been removed from the property; and
- e. all punchlist items have been satisfactorily corrected and completed; and
- f. if permits were drawn, evidence of approval from the permitting agency has been submitted; and
- g. all pertinent manufacturers' warranties have been submitted to the Owner for installed materials; and

- h. all lien rights, where applicable, have been waived or released; and
- i. the property has achieved a passing Clearance Test for residual leaded dust, if surfaces were disturbed which were either identified or presumed to contain lead-based paint; and
- j. PHB has had an opportunity to review the work, if required.

**ARTICLE 32. PERFORMANCE SURVEY**

Upon the completion of each project, PHB will issue a Contractor Performance Survey (“Survey”) to the Owner to gather data with regard to Contractor’s performance and Owner satisfaction. The Survey will collect performance data relating to Owner satisfaction including, but not limited to: quality of workmanship and materials, clean-up, time frame adherence, necessity and authorization of change orders, professionalism, and timeliness of Clearance certification. The Contractor understands that this Survey becomes a matter of public record at the time it is filed and is available for inspection and copying by the general public pursuant to Oregon Public Records law. Contractors have the right to submit supplementary explanatory information generated in response to information collected by the Survey and include this supplementary information in the Survey file.

**ARTICLE 33. CONFLICT OF INTEREST**

Owner understands and agrees that entering into any Construction Agreement wherein a single Contractor is engaged to provide both Lead Paint Risk Assessor services as well as Lead Paint reduction activities on any single project is strictly prohibited.

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**PERFORMANCE REQUIREMENTS AND STANDARDS**

**INTRODUCTION**

The Performance Requirements and Standards is the approved reference for establishing satisfactory performance of materials and work described in the accepted proposal. These shall prevail and become a part of each Contract except as noted in ARTICLE 1 of the General Conditions, Performance Requirements and Standards, unless otherwise clearly stated in the Contract approved by the Owner.

It is recognized that the work to be done under the Contract is rehabilitation work on housing which is not new and which may have a variety of pre-existing conditions. Application of the following standards are, therefore, to be adhered to as much as is reasonably practical.

Similarly, standards of workmanship also establish standards of quality, which, in the case of rehabilitated housing, may be met or exceeded by existing standards of workmanship equal in quality or utility. For example, where a house is out of plumb with the ground or internally, it may be more appropriate workmanship that new repair or construction be done true to the existing structure or the affected part so as to best match the old with the new.

It is recognized that the quality of state-of-the-art materials may supersede these standards. Specifications of materials by brand name are intended only to establish standards of quality and utility. Substitutions of materials and products equal in quality and durability may be made with the approval of the Owner and PHB.

It is also recognized that the quality of work to reduce identified lead hazards may differ from the quality of work for rehab purposes. An example may be painting where non-lead-based paint (paint with a lead content below 0.06% by weight) may be high-pressure water blasted, sand blasted, dry scraped, mechanically sanded without the use of HEPA filters, chemically removed without proper Containments and retrieval, torched or otherwise employ the use of heat guns set at temperatures greater than 750 degrees to achieve a finely feathered finish. Such techniques are not acceptable when the surfaces have been identified or presumed to contain lead-based paint, and consequently the finished result may not have such a finely feathered finish.

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## **1. CABINETWORK, CABINETS AND CABINET HARDWARE**

### **Definitions**

- a. Repair: Remedy defects in appearance or function; replace missing or defective parts with new matching parts.
- b. Remove: Remove and dispose of the designated item; restore surfaces exposed by the removal.
- c. Replace:
  - 1. Remove existing materials; install new materials to match existing, including replacement of missing items; or
  - 2. Replace entire base or upper cabinets or complete cabinet units in the locations, and of size, type, and number as specified on plans.
- d. Install: Prepare surfaces, as necessary; install new product where none exists.

### **Quality**

- a. Owner is to agree to the color, style and composition of cabinets.
- b. Unless otherwise stated in the Contract, quality of cabinets to be medium-grade constructed with minimum high density particle board (45 lbs/cf) or plywood, with interiors of melamine or veneer clad, and exteriors of melamine, Formica or wood veneer. Face frames, drawer fronts and doors shall be veneer clad or melamine on both sides. Shelving to be adjustable, and drawers to have side-mounted guides with nylon or ball bearing rollers.

### **General**

- a. Cabinets are to be installed and secured level, and according to standard practices and manufacturer's instructions.
- b. Contractor should verify in the field all cabinet dimensions listed in the worklist. This includes drawings and CAD schematics prepared by others.
- c. Both wall and base cabinet assembling (if modular) shall consist of individual units joined into one continuous section. All units to be fully enclosed with plywood backs and bottoms except sink, drawer and wall oven units which may be open in the back.
- d. Should new cabinets adjoin existing cabinets, the new cabinets shall match the existing as closely as possible in style and material.
- e. Pulls and knobs are required in the Bid Price, and style should match adjoining when possible.
- f. Countertop base is to be (minimum)  $\frac{3}{4}$ " high-density particle board or plywood.

## **2. COUNTERTOPS/COUNTERTOP BASES**

### **General**

- a. Countertop bases (underlayment) to be (minimum) ¾” high-density particle board or properly finished plywood secured properly to the base cabinets.
- b. For tile installations, cementitious backer board shall be installed over a plywood countertop base.
- c. Countertops shall be high-pressure laminate, self-edged with appropriate backsplash. Owner to agree on color and pattern. All trim necessary for a finished appearance is understood to be included in the Bid Cost.
- d. Preformed countertops are acceptable if the Owner agrees to the installation, and if they are properly fitted and installed.

## **3. CARPENTRY, Framing**

### **Definitions**

- a. Repair: Remedy defects in appearance or function; replace missing parts.
- b. Remove: Remove the item and restore surfaces exposed by the removal.
- c. Replace: Remove existing materials and install new material in-kind, unless otherwise specified; include replacement of missing items.
- d. Install: Install new materials where none exists.

### **Quality Criteria**

- a. All framing lumber shall be #2 or better, with moisture content at or below 19% at time of installation.
- b. All wood members in contact with masonry, concrete, soil or water shall be treated with preservative in accordance with the American Wood Preservers Institute Standards LP-2, LP-4 or LP-55.
- c. All wood members used in exterior exposed construction shall be of a suitable type.
- d. Installations of framing should conform to code and industry standards, and result in straight, plumb and sturdy construction
- e. Wood trim shall comply with the applicable provisions for grading and workmanship of the Architectural Woodwork Quality illustrative of the American Woodwork Institute, with moisture content at or below 12% at time of installation.
- f. Contractor shall discuss with the Owner and install suitable product to receive desired finish appearance (i.e. painting, staining, varnish, natural, etc).



## General

- a. Protection: Take adequate protection measures to protect all finish surfaces on the building, including floors, walls, ceilings, doors, windows and siding against damage due to the work of this section.
- b. Removal:
  1. Carefully remove designated materials by methods to avoid damage to adjacent or supported materials.
  2. Remove entire length of member; cut off damaged portion in a manner to provide for proper splicing in new material and for reinstallation.
  3. Remove damaged or defective nailers and submembers.
  4. Remove exposed nails and fasteners; prepare adjacent and sub-surfaces to receive new work.
- c. Workmanship:
  1. Securely nail or screw all members in place.
  2. New floors, ceilings, and soffit framing shall be level.
  3. Corner intersections shall be true to line, plumb or horizontal.
  4. Joints shall be accurately cut, neatly fitted, tight, without offsets across finish surface of joints.
  5. Finished surfaces shall be free of scratches, splits, dents, cracks, chips or other defects.
  6. Where building is out of plumb or horizontal, consult with Owner to achieve desired finished appearance.
- d. Manufacture and Assembly:
  1. Provide designs, sizes and materials to match existing.
  2. Joints in millwork and trim shall be tight and conceal shrinkage.
  3. Cope molded work at returns and interior angles, and miter work at external corners.
  4. Furnish door and window trim in single lengths, and cornices, baseboard, picture molding and other trim in maximum practical lengths.
  5. Fasten trim with suitable finish nails; set nails for putty stopping, where appropriate; provide blind nailing, as possible.
  6. Use galvanized fasteners for exterior application.
  7. No new materials are to be attached to or installed over deteriorated or rotted existing members. The Owner and the PHB shall be notified when such a condition is revealed, and every effort shall be made to include correcting the condition. It is not necessarily expected that the Contractor absorb the cost of the replacement.

## **4. CONCRETE**

No structural concrete is to be poured without first obtaining a forms inspection by the permitting agency, if required.

### **Definitions**

- a. Repair: Remedy defects in structure, surface, or in appearance with patching material adequate for proper bonding and durability; break out and remove defective areas, prepare area properly, and form and install appropriate material for proper bonding and durability.

- b. Replace: Break out and completely remove defective areas identified in the Contract, clean and prepare area properly, and form and install new material; assure proper bonding and durability.
- c. Install New: Prepare surfaces; form, as necessary; pour and finish quality of concrete suitable for desired purposes.

### **General Requirements**

- a. For repair and replacement, materials shall be such to provide finish textures and colors to closely match existing surfaces.
- b. Bonding of repair work to existing concrete members is critical, and repair work shall become an integral part of existing members.

### **Concrete Proportions**

For projects that are not otherwise superseded by code standards as required by the permitting agency, design concrete for 2,500 psi compressive strength at 28 days, with not less than 4-1/2 bags of cement per cubic yard of concrete and not more than a 4 inch slump, and include necessary rebar reinforcements and expansion joints.

### **Preparation**

- a. For Repair Work:
  - 1. Cracks: Chip and roughen sides of cracks to sound concrete and properly clean surfaces to effect a positive mechanical bond for repair work.
  - 2. Spalled Areas: Chip and roughen spalled areas to sound concrete and properly clean surfaces to effect a positive mechanical bond for repair work.
  - 3. Finish: Remove areas of suitable finish to sound concrete, roughen and properly clean surfaces to provide a positive mechanical bond for repair work. Provide for a minimum 1/2 inch thick topping over sound concrete.
  - 4. Expansion Joint Fillers: Remove sections of defective filler strips for full depth of concrete.
  - 5. Joint Sealers: Remove defective sealers; wire brush to remove all traces of sealer and to expose clean and sound concrete surfaces suitable for new sealer to bond.
  - 6. Cleaning: It is recommended to clean prepared concrete with blasts of compressed air and rinse with water to remove loose material in order to affect a positive mechanical bond with the new material.
- b. For Replacement Work:
  - 1. Break up concrete and remove from site; prepare subgrade in accordance with code and industry standards.

2. Build forms to required shapes, lines and dimensions of concrete; brace and secure to contain concrete; use plywood lined forms for exposed surfaces.
3. Install sand cushion minimum 2 inches thick.

### **Placement and Finishing**

- a. General: Place concrete in forms in one layer of the required thickness (monopour) whenever possible and appropriate. Tamp to consolidate concrete. Walks, driveways and patio slabs to be minimum 4 inch thickness, with driveway aprons at 6 inches thick.
- b. Where repair and replacement of new concrete is adjacent to or is a part of existing concrete, finish on new concrete shall match existing concrete.
- c. Finish for Slab Work: Wood float concrete, while still green, to true, even planes with no coarse aggregate visible. After surface moisture has disappeared, steele trowel surfaces to a smooth, even, dense finish free from blemishes and trowel marks.
- d. Finish for Porches and Stairs: Same procedures and finish as specified for slabs, except after troweling brush surfaces of concrete with a soft bristle broom to result in a uniform non-slip textured surface.
- e. Finish Tolerance: Finished surface of concrete shall not vary more than 3/16 inch from the testing edge of a 10-foot long straightedge. Satisfactorily correct irregularities exceeding that tolerance.
- f. Unless otherwise stated, sidewalks and patio slabs shall receive a broom finish; driveways a float finish; interior slabs a hand trowel finish. All slabs, walks, treads, and other concrete work shall have a tooled finish edge.

### **Expansion Joints**

Expansion joint filler strips to have even lines, and be 1/4" below top surface of concrete.

### **Joint Sealer**

- a. Repairs to existing Joint Sealers: Patch and match existing joint sealers using materials and methods compatible with existing.
- b. New Joint Sealers: Mix and apply joint sealer in conformance with manufacturer's printed instructions. Sealer shall be a minimum of 1/2 inch deep.

### **Asphalt Paving**

Resurfacing a driveway shall consist of placing a new wearing surface on an existing asphalt concrete driveway with new wearing surface a minimum of 1 1/2" in thickness.

New material to be applied after patching or filling of existing cracks, holes and other defects with the appropriate durable material, and after an application of an approved bonding coat.

## **Backfilling**

Forms are to be removed only after new concrete has hardened sufficiently, and care shall be taken to protect concrete from damage. Remove all construction debris; back-fill with excavation material or clean soil; grade and compact to conform to the ambient area lines and grades; rake smooth; assure positive drainage away from the structure.

## **Protection**

Protect concrete from damage due to traffic or weather until it has reasonably cured. Contractor shall not ask Owner to accept concrete or asphalt work until it has reasonably cured.

## **5. DEMOLITION**

- a. The Contractor shall insure that all demolition is done in a safe and orderly manner. Care shall be taken to avoid damage to, and contamination by dust and debris of, adjacent areas and property.
- b. Any damage resulting from the work shall be replaced or repaired with like materials and in appropriate style at no additional cost to the Owner.
- c. Demolition of miscellaneous items not specifically mentioned, but obviously intended to be removed in order that the job can be completed according to the Contract or drawings, is understood to be included in the Bid Price.
- d. The Contractor shall ensure the proper storage and protection of items to be salvaged or reused.
- e. Remove all demolition waste materials, debris and rubbish from the site.
- f. Disposal shall follow all requirements as set forth by the Department of Environmental Quality.

## **6. DOORS**

### **Definitions**

- a. Repair: Correct defects in door, jamb, threshold, frame or hardware; adjust for smooth operation.
- b. Replace: Replace door in existing jamb, or; replace assembly in existing frame with prehung unit.
- c. Install: Install new door where none exists.

### **Primary (exterior) Door**

- a. All replacement door assembly installations shall conform to the code requirements of the permitting agency. If a header is altered, a permit is required.
- b. Exterior replacement door shall be exterior-grade, solid core or foam-filled.
- c. Where Contract is silent, it is assumed that existing hardware will retrofit into new installation; new replacement hardware shall match existing style, or Contractor shall discuss desired style with the Owner.

- d. New deadbolt shall be Quikset 880 series or better, and protrude into the strikeplate by a minimum of 1”.
- e. Replacement door shall be properly weatherstripped at both jambs and threshold.
- f. Door shall operate smoothly, have an even reveal around edges, and pass no light when door is closed.
- g. If surfaces of door or door jamb have either been identified or are presumed to contain lead-based paint, door should operate without friction and door hardware shall be cleaned free of paint or replaced.
- h. Contractor shall discuss style of replacement door with Owner, and state such agreement in the Contract.
- i. Replacement doors are understood to be primed; however finish coat must be specifically included in the Contract.
- j. Unless otherwise stated in the Contract, all interior and exterior trim affected for the door replacement shall be reinstalled. If the trim is damaged in its removal, it shall be repaired, if possible, or replaced in-kind with existing style. Such work is understood to be included in the Bid Price.

#### **Interior Door**

- a. Contractor shall discuss style of replacement door with the Owner, and state such agreement in the Contract.
- b. Where Contract is silent, it is assumed that existing hardware will be reinstalled.
- c. New replacement hardware shall match existing style, or Contractor shall discuss desired style with the Owner.
- d. Door shall operate smoothly, and have an even reveal around edges.
- e. If surfaces of door or door jamb have either been identified or are presumed to contain lead-based paint, door should operate without friction and door hardware shall be cleaned free of paint or replaced.
- f. Where the Contract is silent, painting is not understood included in the Bid Price.
- g. Unless otherwise stated in the Contract, all trim affected for the door replacement shall be reinstalled. If the trim is damaged in its removal, it shall be repaired, if possible, or replaced in-kind with existing style. If existing style is no longer available, Contractor will discuss with the Owner a suitable replacement style. Such work is understood to be included in the Bid Price.

## **7. ELECTRICAL**

### **GENERAL PROVISIONS**

#### **Codes and Standards**

All material and equipment used shall conform to the latest U.L., A.N.S.I., F.S. and local permitting authority code standards. The Contractor shall be responsible for securing all required permits, approvals, inspections and licenses for the work. All wiring, fixtures, switches, receptacles, etc. shall be of standard to good quality and installed complete with all required accessories.

#### **Abandoned Wiring**

When abandoning wiring, remove all exposed wiring. Assure all unexposed wiring is dead; wire-nut all dead ends.

#### **Cutting and Patching**

Perform cutting and patching of accesses essential to installation or work; cuts shall not require oversized plates to mask work; cuts shall not compromise the integrity of framing members, piping or duct work; General Contractors shall restore cut or damaged surfaces to original finish to match surrounding surfaces.

#### **Lamping**

Furnish and install new lamps for all new fixtures at completion of the work; exterior lamps shall be PAR type.

#### **Main Panel**

When replacing service panel, provide directory identifying loads served by each circuit.

### **CIRCUITS**

#### **Definitions**

- a. Repair: Correct functional defects.
- b. Remove: Disconnect power at panel and device; remove wiring which is exposed; cut off, wire-nut ends and abandon wiring which is concealed.
- c. Replace: Remove designated wiring; replace with new wiring suitable for intended use.
- d. Install: Install new wiring suitable to serve identified fixtures or appliances.

## **Wire and Cable**

Wire material for repair or replacement work shall be suitable for intended use.

### **Installation**

- a. Size conductors for circuit load as required by the National Electrical Code (NEC).
- b. Run conductors concealed unless specifically stated in the Contract.
- c. When not possible to run conductors concealed, enclose in metallic rigid conduit run as unobtrusive as possible: parallel or plumb and square with lines of the building.

## **SWITCHES, CONVENIENCE OUTLETS AND FACEPLATES**

### **Definitions**

- a. Repair: Tighten connections; replace missing screws; align devices; replace wiring in the device's box that has visibly damaged insulation.
- b. Replace: Align device parallel to wall or floor and patch surface around junction box so that faceplate completely covers opening and is flush with surface; replace wiring in the device's box that has visibly damaged insulation.
- c. Install: Install new boxes in standard locations; align with heights of adjacent boxes, if possible.

### **Switches**

Match existing color and style of switches and faceplates, or discuss with Owner color and style desired.

### **Outlets**

Match existing color and style of outlets and faceplates, or discuss with Owner color and style desired.

## **BATHROOM LIGHTING FIXTURES and VENT FANS**

### **General**

Installation of vent fans shall include all required work for a code-approved installation, including exhausting ductwork to the exterior.

### **Definitions**

- a. Repair: Tighten connections, replace missing screws, align devices; replace broken lampholders, diffusers and lenses; replace fan motor or blower, if necessary; replace wiring that has visibly damaged insulation.

- b. Replace: Align device parallel to wall, ceiling or floor and patch surface so that device completely covers opening; replace wiring that has visibly damaged insulation; connect fan to external ductwork.
- c. Install New: Install new bathroom exhaust fan to code complete with all wiring, switches, duct work, wall or roof cap, etc; align device parallel to wall, ceiling or floor.

### **Type**

Bathroom vent fans shall provide a minimum of one cfm exhaust per square foot of floor area, but no less than 60 cfm.

## **ELECTRICAL HEATING SYSTEM**

### **Definitions**

- a. Repair: Tighten connections, replace defective or missing parts, calibrate controls; replace wiring that has visibly damaged insulation supplying power to unit.
- b. Replace: Remove existing device or wiring and replace with new; patch wall, ceiling, floor or ductwork if required after new unit is installed; calibrate controls; replace wiring that has visibly damaged insulation supplying power to unit.

### **General**

- a. Physical size of new unit shall either match as close as practical to unit being removed, or be upgraded to a greater capacity.
- b. General Contractor to patch and match existing surfaces when the new unit is smaller in size than the replaced unit.
- c. Wire material for repair or replacement work shall be suitable for intended use.

## **8. EXCAVATION**

### **General Requirements**

- a. The Contractor shall excavate the necessary depth for all footings, piers, foundations, floors, drainage tile, etc., as necessary or as stipulated by code requirements.
- b. Contractor shall protect the adjoining property from equipment traffic and excavated materials.
- c. When access is required for equipment or temporary storage of excavated materials, it is the Contractor's responsibility to obtain permission from the property owner.
- d. Backfilling of all excavations (regardless of reason of excavation) shall be done as soon as possible to avoid accidents. Backfill material shall be free of any debris. Fill shall be puddled with water and thoroughly tamped into place in layers to mitigate settling after completion. Settling will obligate the Contractor to return to correct the situation at no additional expense.



- e. Contractor shall rake backfilled area smooth and free of stones and rubble.
- f. When required, furnish top soil with a known capability of satisfactorily supporting lawn growth free from clay lumps, litter, debris, weeds and other material which will interfere with planting and maintenance, and with a known lead content of less than 200 parts per million.
- g. When removing soil from the property, disposal shall follow all requirements set forth by the Department of Environmental Quality.

## **9. FENCES, CHAIN LINK**

### **Definitions**

- a. Remove: Remove and dispose of all fence materials, including posts set in concrete; fill post holes with clean fill, as necessary.
- b. Replace: Remove existing fence materials (see above); install new fence materials (see below).
- c. Install New: Confirm with the Owner the style and location of fence; install new fence materials to zoning, code and manufacturer's requirements.
- d. Repair: Repair or replace damaged fence parts in-kind with existing fence; assure stability of fence and proper operation of gate(s).

### **Siting**

The Contractor shall assure that the installation of the fence does not violate property lines or zoning regulations. Unless otherwise specified in the Contract, it shall be the Contractor's responsibility to assure compliance regarding these matters.

### **Standards of Manufacture**

- a. Steel fencing and gates to comply with standards of the Chain Link Fence Manufacturer's Institute as outlined in "Galvanized Chain Link Fence Fabric" and "Industrial Steel Specifications for Fence posts, Gates and Accessories".
- b. Aluminum Fencing and Gates to comply with the standards of the Chain Link Fence Manufacture's Institute, CS 269 for "Industrial Aluminum Alloy Chain Link Fencing".

### **General**

- a. New materials shall match existing where possible. If no longer available, discuss with Owner and furnish nearest size, grade and style of material similar in quality.
- b. Chain Link Fabric to be minimum 11 gauge with top selvage knuckled and bottom selvage twisted and barbed; stretch fabric taut both vertically and horizontally, and align consistently throughout the installation.

- c. Contractor shall clearly state in the Proposal the style of fencing, and if post caps and bottom rails or wires are included in the Bid Price.
- d. Provide bracing where required for rigidity. Touch up new welds on steel fencing with zinc-rich paint.

### **Finish**

- a. Zinc coating to be not less than 1.2 oz zinc per square foot.
- b. Aluminized finish to be not less than 0.35 oz. aluminum per square foot.
- c. Polyvinyl Chloride (PVC) plastic resin finish over steel wire to be not less than 7 mils thick fused to wire.

### **Gates**

Gate frames to be rigid, square and true as required for support of fabric and hardware. Provide bracing if required to eliminate sagging. Unless otherwise stated in the Contract, each gate leaf must have at least one pair of no-lift, off-set type hinges for 180 degree opening, and forked-type latch to permit operation from either side of gate.

### **Erection**

- a. Holes to be minimum 10” in diameter, and a minimum of 1/3 the height of the post.
- b. Do not begin installation of any components and/or reinstallation of existing components until defects in members have been corrected and remedied.
- c. Stretch fabric taut both vertically and horizontally, and align consistently throughout installation.
- e. Install gates plumb, level and secure. Adjust hardware for smooth operation and lubricate where necessary.

## **10. FLOOR COVERING, CARPET AND CARPET CUSHION**

### **CARPET**

#### **Definitions**

- a. Repair: Remove and dispose of defective materials in the designated area; replace with matching new materials.
- b. Remove: Remove and dispose of existing carpet, cushion, accessories, nails and screws; fill holes in subsurface; leave clean.
- c. Replace: Remove and dispose of existing material in the entire room; replace with new materials.

- d. Install New: Prepare floor; install new material over existing surface.

### **General Requirements**

New carpeting shall be 100% continuous nylon, minimum weight of 26 oz laid over minimum ½” rebond pad of 38 oz per square yard with necessary tack strips, gripper edges, thresholds and other standard accessories. Carpeting shall meet at least the minimum FHS UM-4413 specifications.

### **Installation**

- a. Repair minor floor irregularities. Properly clean floor of dust, grit and debris. The Contractor is not responsible to repair major areas of damage that were not identified or could not be observed before the existing flooring was removed.
- b. Lay carpet and pad wall to wall in conformance with manufacturers’ instructions, and in the following manner:
  - 1. Carpeting shall be stretched tight, free from puckers, scallops and ripples.
  - 2. Carpeting shall be cut evenly and fitted close to walls and all other projections. It shall be cut to fit closely and evenly into trim strips, and to or through thresholds where carpet joins together in doorways.
  - 3. Filler strips in carpeting shall not be less than 12” in width, nor less than 36” in length.
  - 4. Carpet shall be lined up so that all lines (weaving) of carpet match as woven, both width and length.
  - 5. Refit all doors, as necessary, so they clear carpeting when swinging.
  - 6. Remove all loose threads with sharp scissors; clean spots with proper cleaner; vacuum carpeting when complete.
- c. Seam Location:
  - 1. Allow only minimum number of seams (no “T” or “head “ seams).
  - 2. Make seams parallel and perpendicular to the walls.
  - 3. Do not place seams directly in front of openings perpendicular to the openings.
  - 4. Make cuts under doors at the mid-point of the door thickness when the door is in the closed position.
- d. Stair Coverings:
  - 1. Place seams at bottom of riser.
  - 2. Use carpeting that is the full width of the widest portion of the stairway.
  - 3. When the Contract is silent, wrap carpet and pad around balustrades; fasten to the tread and riser face.
  - 4. Fasten carpet and pad at the top and bottom of each riser.

## **RESILIENT SHEET**

### **Definitions**

- a. Repair: Patch defective surface materials.
- b. Remove: Remove and dispose of existing materials and clean exposed surfaces.

- c. Replace: Remove and dispose of existing materials and install new material and accessories.
- d. Install New: Furnish and install new material and accessories over existing surfaces.

### **General Requirements**

- a. Grades of vinyl are to be equivalent to Armstrong Sundial, or Congoleum Pacemaker. Sheet vinyl shall have a wear surface of at least ten (10) mil.
- b. All necessary accessories included in Bid Price.
- c. Minimum size rolls to be 72”.
- d. Vinyl is to extend under the toilet and abut to flange. Caulking to the flange is considered not appropriate.
- e. Owner to select color and pattern.

### **Accessories**

- a. Resilient Edge Strips: 1/8 inch thick, 1 inch wide, homogenous vinyl or rubber composition, tapered or bullnose edge, color to complement flooring.
- b. Metal Edge Strips: Extruded aluminum edge strips with mill finish in required thickness to protect exposed edge of resilient flooring. Contractor should discuss color of strips with Owner,
  - 1. Provide butt type metal edge strips for concealed anchorage.
  - 2. Provide overlap type metal edge strips for exposed anchorage.
- c. Adhesive (Cement): Waterproof, stabilized type as recommended by resilient material manufacture.
- d. Concrete Primer: Non-staining type as recommended by resilient material manufacturer.
- e. Felt underlayment: 15 # ASTM-rated asphalt-saturated felt.

### **Preparation**

- a. Patch and clean substrate surfaces to acceptable conditions for installing materials.
- b. Installations over concrete, apply concrete primer as necessary prior to application of adhesive. Apply in compliance with resilient manufacturer’s directions.
- c. Provide felt underlayment for wood subfloors and concrete slabs over earth fill. Butt ends and edges. Cement felt down securely without voids and air pockets.
- d. For Repair Work: Remove damaged or worn materials. Cut to square, straight lines.

## **Installation**

### **a. General:**

1. Install resilient materials after finishing operations, including painting, have been completed and permanent heating system is operating.
2. Moisture content of concrete, building air temperature and relative humidity shall be within limits recommended by resilient material manufacturer.
3. Place resilient material with proper adhesive cement.
  - a. Butt tightly to vertical surfaces, thresholds, nosings and edgings.
  - b. Scribe as necessary around obstructions to produce neat joints laid tight, even and straight.
  - c. Extend resilient material into toe spaces, door reveals, and into closets and similar openings.
4. Tightly cement resilient materials to subsurface without open cracks, voids, raising or puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections.

### **b. Sheet Flooring:**

1. Lay seamless installation whenever practical.
2. Lay sheet flooring to provide as few seams as possible with economical use of materials.
3. Match edges for color shading and pattern by reversing adjoining sheets of same roll so that abutting edges are from same edge of roll.

### **c. Stair Tread Riser:**

1. Comply with the manufacturer's instructions for each type of substrate.
2. Anchor treads to substrate and fill voids at nosings and wearing surfaces.
3. Install risers after installing treads.
4. Scribe and tightly butt risers to vertical and horizontal surfaces.

### **d. Accessories:**

1. Tightly bond accessories to backing throughout the length of each piece, with continuous contact at all surfaces.
2. Tightly butt resilient edge strips to flooring and secure with adhesive; install edging strips at unprotected flooring edges.
3. Secure metal edge strips to substrate with countersunk stainless steel anchors.

## **BOARD UNDERLAYMENT**

### **Definitions**

- a. Repair: Patch underlayment with appropriate durable materials to match thickness of adjacent materials.
- b. Install New: Install new underlayment over existing in entire area.

### **Quality**

Underlayment shall be approved materials suitable for finished floor. All blemishes shall be sanded and/or filled for a smooth bonding surface. Thickness may be as great as required to level or solidify floor, but no less than ¼". Sheet underlayment shall be as large as practical and available.

## **Preparation**

- a. Repair work: Remove existing damaged materials to nearest point of undamaged material over solid bearing.
- b. Install new work: Clean, dry and level sub-surfaces for application of new materials.
- c. Acclimation: When practical, store underlayment materials in the area of installation for 24 hours before application.

## **Installation**

- a. Stagger all interior joints which are perpendicular to the framing members.
- b. Nail spacing pattern should be 6” on the edges and 8” in the field.
- c. Glue underlayment for maximum adhesion. Fasten with screws or ribbed nails to maximum depth just short of bottom of subfloor.
- d. In bathroom applications, underlayment should extend under the toilet to the flange.

## **11. FURNACES**

### **Definitions**

- a. Repair: Remove and dispose of existing damaged equipment and inoperable components; replace with new material.
- b. Replace: Remove and dispose of existing unit item and replace with new item.
- c. Install New: Install new appropriately-sized equipment to code.

### **General Requirement**

- a. All mechanical repairs and installations shall conform to code requirements, and it is the responsibility of the Contractor to obtain the proper mechanical, electrical or plumbing permits when required.
- b. For replacements and new installations, the Bid Price shall include all required work to achieve a passing certificate of approval from the authorizing body. Such required work may include, but not be limited to: a properly-sized furnace with an adequate duct system, registers, assurance of proper electrical service, service walkboard (for attic installations), adequate service lighting, thermostat (for new installations), exhaust vents or chimney liner (as necessary), any necessary fuel lines, the appropriate permits, etc.

## **12. GUTTERS**

### **General**

- a. For replacement of existing systems, the Contractor is responsible only for in-kind replacement or standard dispersement methods.
- b. For new construction, the Contractor is responsible to know the requirements for dispersement, and include the cost in the Bid Price.
- c. Owner shall agree on color selection of system.

### **Definitions**

- a. Repair: Remedy defects in appearance or function.
- b. Replace: Remove and dispose of existing defective or damaged parts and install new parts; include replacement of missing parts; assure positive attachment to existing dispersal system.
- c. Install: Install new parts where none exists, and provide for proper dispersal from the building.

### **Materials**

- a. Unless otherwise stated in the Proposal, gutters shall be minimum 20 gauge continuous galvanized metal or pre-painted, continuous aluminum, minimum 4 inch ogee or K-style.
- b. Downspouts shall be rectangular and of the same material.
- c. Spikes, ferrules, hangers and other fixtures shall be of compatible metal.
- d. Plastic gutters are not acceptable, unless specified in the contract.
- e. Owner shall agree on color of system.

### **Workmanship**

- a. Dissimilar Materials:
  1. Protect aluminum surfaces in contact with pressure treated wood, mortar, masonry or concrete with one coat of zinc chromate and a coat of aluminum paint.
  2. Where sheet metal abuts dissimilar metals, protect contact surfaces with a heavy coat of bituminous paint.
- c. Soldering and Seams: Make joints in aluminum mechanically, rivet or screw, and seal thoroughly.

### **Installation**

- a. Gutters:
  1. Lap and seal cross joints.
  2. Support gutters on transverse hangers at minimum 3 foot centers.
  3. Level or grade gutters to downspouts. Where drainage of gutters interferes with visual appearance, Contractor shall consult with Owner regarding visual effect.

4. The Bid Price shall not include cutting of rafter tails for gutter installation unless the work is first approved by the Owner and PHB.
5. The Bid Price is understood to include fascia board where there is none and it is required for the installation of the gutters

b. Downspouts:

1. Telescope end joints 1-1/2 “; screw or rivet; seal thoroughly.
2. Provide removable wire basket strainer in each downspout inlet.
3. Connect and seal downspouts to existing dispersal system if replacement, or provide suitable dispersal if new installation.
4. Where splashblocks are required, provide 30” concrete splashblocks.

### **13. INSULATION**

#### **General**

- a. All installations of insulating materials shall conform to standards and requirements as set forth by code.
- b. The Contractor shall replace any insulation damaged or removed for construction, and include the work in the Bid Price.
- c. Pipe Insulation shall be included in the Bid Price for all new water service plumbing in unprotected spaces.

### **14. MASONRY**

#### **Definitions**

- a. Repair: Remedy defects in material or appearances; tuck point or parge defective surfaces.
- b. Remove: Remove and dispose of material and restore surfaces exposed by removal.
- c. Replace: Remove and dispose of defective materials in designated area and install new material.

#### **General Requirements**

- a. For repair and replacement, materials shall be such to produce finish sizes, shapes, textures and color to closely match existing surfaces.
- b. Bonding of repair and replacement work in existing masonry is critical, and repair and replacement work shall become integral part of existing masonry work without adverse affect.



## **Materials**

- a. Clay Brick:
  - 1. Where possible, reuse existing sound, unchipped, clean brick resulting from demolition work.
  - 2. New brick shall match existing brick as to size, shape, texture and color.
- b. Other Masonry Materials:
  - 1. Comply with codes
  - 2. As appropriate for intended use.

## **Preparation**

- a. Defective mortar joints: Rake out mortar joint to minimum of ½ inch; clean joints thoroughly.
- b. Protect adjacent surfaces from work to avoid staining.

## **Mortar Types and Mixes**

- a. General: Mortar, materials, measurements and mixing, see ASTM C270. For partial repairs and tuckpointing, new mortar shall be of similar mixture as existing.
- b. Mortar for masonry in contact with earth, Type M.
- c. Mortar for tuck pointing and parging:
  - 1. Below grade, use Type M.
  - 2. Above grade use Type N.

## **Tuck Pointing and Cleaning Masonry**

- a. Point holes in exposed masonry; scrape defective joints and repoint them with mortar compatible in mixture and color; remove excess loose mortar from exposed masonry; leave finished masonry surfaces free from loose mortar and stains.
- b. Clean new exposed brick surfaces that are stained. Cleaned surfaces shall be free from mortar stain, drippings, efflorescence and other foreign substances from the exposed surfaces.
- c. It may be required to tuckpoint using methods and materials required by the State Historical Preservation Office.

## **15. PAINT**

### **Working with Lead Hazards**

*Note: The quality of work to reduce identified lead hazards may differ from the quality of work for rehab purposes. An example may be painting where non-lead paint (paint with a lead content below 0.06% by weight) may be high-pressure water blasted, sand blasted, dry scraped, mechanically sanded without*

*the use of HEPA filters, chemically removed without Containments and retrieval, torched or employ the use of heat guns set at temperatures greater than 750 degrees to achieve a finely feathered finish. Such techniques are not acceptable when the surfaces have been identified or presumed to contain lead-based paint, and consequently the finished result may not have a similar degree of a finely feathered finish.*

When work will disturb surfaces that have either been identified or presumed to contain lead-based paint the Contractor shall at all times prevent the contamination of non-work areas by dust and debris that is generated by work under the Contract by:

- a. erecting appropriate physical barriers ("Containments") between work and non-work areas, and
- b. employing work methods that minimize the generation of lead-paint hazards such as hand washing, wet scraping and wet sanding, and
- c. avoiding work methods that generate lead-paint hazards such as high-pressure water blasting, sand blasting, dry scraping, mechanical sanding without the use of HEPA filters, chemical removers without proper Containments and retrieval, torching and the use of heat guns set at temperatures greater than 750 degrees.

Acceptable procedures for constructing Containments and methods of lead-safe preparation and painting are located in the field guide *Lead Paint Safety* (HUD-1779-LHC) published by the Department of Housing and Urban Development and ordered from the National Lead Center at 1-800-424-5323.

### **Paint, Stain, and Varnish Quality**

- a. **Lead Content:** Coatings shall not contain more than 0.06% lead by weight, calculated as lead metal in the total non-volatile content of liquid paints.
- b. **Paint Color:** Selections to be made by Owner.
- c. **Stain Color:** Selections to be made by Owner.
  1. Typically select stains that match or are slightly darker than the existing wood or finish.
  2. Typically use transparent stains typically.
  3. Typically use opaque stains on wood that is scarred, discolored or heavily grained.
- d. **Paint Type:**
  1. Use appropriate primer to assure positive bond with new paint and existing prepared surfaces.
  2. Use exterior-grade paint for exterior siding and trim; Owner to select textures of body and trim.
  3. Use deck-grade exterior paint for traffic locations (porches, decks, floors and steps).
  4. Unless otherwise directed, use interior-grade matte finish latex on all interior wall and ceiling surfaces, and semi-gloss interior-grade latex or enamel on corresponding trim surfaces, except:
  5. Unless otherwise directed, use interior-grade semi-gloss finish enamel on kitchen, bathroom and basement stairway walls and ceilings, and interior-grade high-gloss enamel finish on corresponding trim surfaces.

## **Protection of Other Work**

- a. Arrange procedures and devices to protect other work from overbrush or overspray, disfigurement and other physical damage.
- b. Repair or replace materials damaged as a result of painting activity.
- c. Remove from the site all debris caused by the painting activity.

## **Preparation for Painting:**

### a. General:

1. Remove existing loose, scaling, peeling or cracking paint.
  - (a) If surfaces to be disturbed have been identified as not containing lead-based paint: scrape, sand or wire brush surfaces to condition where existing paint is tight to the surface; feather edges from abrupt transitions; and wash prepared surfaces of dust to provide positive bond for new primer or paint.
  - (b) If surfaces to be disturbed have been identified or presumed to contain lead-based paint: establish proper containments; wet scrape, wet sand or wire brush surfaces to condition where existing paint is tight to the surface; feather edges, as possible from abrupt transitions; wash prepared surfaces of dust to provide positive bond for new primer or paint; and collect and dispose of containment, dust, debris and wash water in an appropriate manner.
2. Prime all bare surfaces with appropriate primer, and otherwise assure that new paint will properly bond to existing painted surfaces.
3. Protect surfaces adjacent to work.
4. Completely remove any misapplied paint, and touch up surfaces to mask cleanup activity.
5. Notify the Owner or PHB of the condition before painting over surfaces that are deteriorated.

### b. Wood:

1. Properly seal knot holes, pitch pockets and sappy portions so that these areas do not bleed through the new paint surfaces.
2. Remove projecting nails, screws or hooks; fill nails holes, cracks and defects with the proper grade of putty; sand putty applications flush with the surface.

### c. Steel and Iron:

1. Remove grease, oil, dirt and dust.
2. Touch up chipped and abraded primer on items that have been shop primed, using appropriate primer.
3. Unless otherwise stated in the Contract, new paint should either match the existing or be black.

### d. Plaster, Concrete, Masonry:

1. If high alkali is present, neutralize to suitable levels.
2. If high moisture is present, assure that the surface is dry before priming or painting.
3. Apply appropriate primer to assure that paint will properly bond to surfaces.

### e. Painted, Wallpapered and Stained Surfaces:

1. Remove loose paint or wallpaper, dirt, fungus and other foreign materials from the surface.
2. Lightly rough up glossy surfaces with steel wool or sandpaper for maximum adhesion.

## **Workmanship**

- a. Supplier's Instructions: Unless specifications in this section are more restrictive, follow the supplier's printed instructions for the use and installation of the products.
- b. Leveling: Apply finish evenly with proper consistency and quantity so paint flows out to a level surface free of brush and roller marks, bubbles, dust, runs and sags.
- c. Appearance: Bid Price shall include a full-coverage finish of uniform color, texture and sheen. Where two coats are specified, the second coat shall be over a cured base coat which has achieved full-coverage.
- d. Neatness:
  1. Finish shall not be smeared, spattered or run over adjoining colors or materials.
  2. Cut-in lines shall be straight.
  3. Brush marks, particularly on trim, shall not detract from the finished appearance.
- e. Method: Unless otherwise agreed upon, trim paint shall cut back to the siding.

## **Compatibility of Paint Types**

- a. Verify the compatibility of each primer with the existing surface and the new paint to be applied, and of the finish coat with existing surfaces or the primer to be applied.
- b. When necessary, change paint types or use a block coat to avoid interference between paint types.

## **Exterior Painting Extent and Exclusions**

- a. Bid Price shall include full-coverage of materials to be painted.
- b. Unless otherwise stated in the Contract, the Bid Price includes, but is not limited to: eaves, soffits, fascia, barge boards, previously-painted exposed rafters, windows (rails, stiles, mullions, sills, window wells and casing to inside stops), doors (edges and casing to inside stop), trim (cut to siding), porches (high-wear deck paint on the walking surfaces), steps (high-wear deck paint, particularly on the runs), rails and previously-painted decks and masonry.
- c. Unless otherwise included in the Contract, the Bid Price does not include unpainted decks and masonry.
- d. Unless otherwise included in the Contract, the Bid Price does not include the removal of the storm windows or doors.
- e. It is the responsibility of the Contractor to thoroughly detail with the Owner what work is to be included or excluded in the Bid Price, and to clearly document this agreement in the Contract.

## **Warranty**

- a. Contractor shall extend the warranty for painting for three years.

## **16. LEAD PAINT REQUIREMENTS**

Projects with painted surfaces to be disturbed that have been identified or presumed as containing a lead paint hazard shall conform the lead hazard reduction activities to the Rule set by the Department of Housing and Urban Development's Office of Lead-Based Paint Abatement and Poisoning Prevention: *Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance* (24 CFR, parts 35, 36 and 37).

- a. All painted surfaces to be disturbed in homes constructed prior to 1978 will be presumed to contain lead-based paint and managed according to lead-safe work practices unless evidence exists to determine that disturbing a surface will not generate measurable quantities of leaded dust.
- b. Lead-safe work practices are:
  1. those taught in any Lead-Safe Remodeling training approved by the Department of Housing and Urban Development, or;
  2. those taught in achieving certification as a Lead Abatement Contractor through the Oregon Department of Health, or;
  3. those found in the field guide *Lead Paint Safety* (HUD-1779-LHC) published by the Department of Housing and Urban Development and ordered from the National Lead Center at 1-800-424-5323.
- c. Unless specifically noted in the Contract, the Bid Price includes all expenses related to containing the work area, performing the work in a lead-safe manner, and cleaning the work area(s) in a manner sufficient to achieve Clearance.
- d. Clearance Testing is a method of determining visually and with dustwipe sampling by a Lead Inspector or Risk Assessor certified by the Oregon Health Division that no hazards from lead-laden dust exist in or about the work site, and shall be performed on all lead reduction work unless specifically noted otherwise in the Contract.
- e. The Contractor is responsible for scheduling the Clearance inspection.
- f. PHB will provide one Clearance Test at no charge to the Contractor.
- g. The Contractor is responsible for all subsequent tests required to achieve Clearance.
- h. Any costs of relocating furnishing or residents, or any other expenses accrued by undue delays in achieving Clearance are the responsibility of the Contractor.
- i. Final payment will not be made until Clearance is achieved.
- j. All bids shall clearly indicate a work plan on whether the work is proposed to be accomplished while the occupants are in residence, or whether the occupants will need to temporarily relocate in order for the Contractor to perform the work according to the bid.

## **17. PLUMBING**

### **General Requirements**

- a. All plumbing work and materials shall conform to the Plumbing Code of the State of Oregon.

- b. The plumbing contractor shall be duly licensed by the State of Oregon.
- c. Appropriate supports shall be provided for each fixture and equipment item. General Contractors shall make arrangements with the other trades when the installation of any built in items, blocking or other necessary supports, is required.
- d. The General Contractor shall assure that any damage to wall, ceiling or floor surfaces as a result of the plumbing work shall be restored to their original condition.
- e. Fixtures shall be installed complete and ready to use. Piping and equipment shall operate safely, without dripping, leaking, undue noise, vibration or water hammer. Unless otherwise noted, style and color of fixtures shall match existing, as possible.

### **Materials**

- a. Kitchen sink: shall be double bowl, stainless steel Moen "Camelot" or equivalent. Faucet to be Moen "Chateau" or equivalent.
- b. Lavatories: shall be 20 X 17 ceramic self-rimming American STD "Aqualyn" or equivalent
- c. Waterclosets: shall be elongated "Kohler Wellworth" or equivalent w/ seat and mechanisms.
- d. Tubs and Showers: shall be fiberglass Owens Corning S-60 or equivalent.
- e. Waterheaters: shall be of a size specified in the work list and shall be of American manufacture by A.O.Smith, Morflow Industries or equivalent.
- f. All units to be supplied with new traps, lines and shut off valves, where applicable.
- g. All replacement main water supplies shall be ¾" K copper run from immediately inside the foundation to the water heater. All hot water lines shall be installed with the shortest practical run that does not compromise headroom. All fixture supplies shall be ½ " L copper.
- h. Any existing improper plumbing that is identified during demolition or installation shall be brought to the attention of the Owner or the PHB.

Note: These specifications are to set minimums only. All materials and installation shall conform to code and actual worklist requirements.

## **18. RAILINGS**

### **Definitions**

- a. Repair: Align and secure loose members; remove and replace existing defective parts and members; replace missing parts.
- b. Replace: Remove and dispose of damaged materials, and replace with new materials; replace missing parts.

- c. Install New: Install new handrail or railing where none exists; plumb and anchor securely to sound supports.

### **Quality Criteria**

- a. Framing members and supports shall safely support a uniformly distributed live load of 100 psf, plus all dead loads.
- b. Unless otherwise stated, iron railings shall be of welded manufacture.
- c. Wood handrails shall be sanded smooth, grippable, free of splinters and voids, and installed in whole without splits and checks; intermediates shall be secure and aligned plumb.

### **General Requirements**

- a. Where repair and replacement of exposed items is involved, new materials shall be such to produce exposed finished sizes, shapes, textures and colors to closely match existing exposed surfaces.
- b. All repaired, replaced and new materials shall become an integral part of existing components.
- c. Unless otherwise stated, new installments shall include a finished coat of black paint over an appropriate primer coat.

## **19. ROOFING**

### **Definitions**

- a. Repair: Remedy defects in appearance or function; repair or replace missing shingles and flashings; eliminate roofing or flashing leaks.
- b. Recover: Remove all flashings; remove shingles to stable base layer; knock down curled corners, as necessary; reset protruding fasteners, as necessary; install new shingles over 30# ASTM-rated asphalt-saturated underlayment; install new flashings, including counterflashing for chimneys.
- c. Install: Remove all flashings; knock down curled corners; reset protruding fasteners; install new shingles over 30# ASTM-rated asphalt-saturated underlayment; install new flashings, including counterflashing for chimneys.
- d. Strip and Resheath: Remove all roofing materials to rafters or spaced/strip sheathing; (consult Owner or PHB if unsound condition is found, and) replace any unsound materials level with existing; install code-approved sheathing to manufacturers' specifications; install minimum 15# asphalt underlayment, if applicable; install new shingles.

### **Permits**

Where structural membrane of roof is to be altered, Contractor shall obtain required permit from the permitting agency.

## **Quality Criteria**

- a. Asphalt and fiberglass shingles shall be minimum of 235 # per square (25-year), mineral impregnated, self-sealing, and with a minimum U.L. "C" fire resistant classification.
- b. Wood shingles shall be #1 grade cedar.
- c. Asphalt roll roofing shall be minimum 90 # per square.
- d. Felt underlayment shall be asphalt-saturated and ASTM-rated.
- e. Bituminous Membrane shall be ASTM-rated and asphalt-saturated.
- f. Sheathing shall be code-approved for roofing application.

## **Warranty**

- a. Contractor shall install materials to manufacturer's instructions, and upon completion shall furnish the Owner with the manufacturer's warranty.
- b. Contractor shall extend the warranty for the installation of the roof for three years.

## **Preparation**

- a. No material shall be applied over unsound conditions. If such conditions are found the Contractor shall consult with Owner and/or PHB and discussions will be conducted to arrange for the correction of the conditions. If the conditions were not readily evident during the bid process, discussions will be conducted to arrange for repayment for the additional work. Regarding replacement of sheathing, similar thickness of materials to nearest structural member is expected.
- b. Where old asphalt shingles are to remain in place, nail or cut away all loose, curled or lifted shingles. Drive in or remove loose or protruding nails. Trim existing shingles back 4" from eave. Roofing surface to be swept clean and made free of debris.
- c. Where roll roofing is to remain in place, slit all buckles and nail edges securely. Remove or reset loose and protruding nails.
- d. Carefully lift and protect any flashings that are to remain in place.
- e. Protect all property, including shrubs, from damage due to work.

## **Installation**

- a. Install 15<sup>th</sup> felt underlayment when applying asphalt and fiberglass shingles over sheathing.
- b. Install 30<sup>th</sup> felt underlayment when applying asphalt or fiberglass shingles over existing shingles.
- c. Half-Lap felt underlayment.



- d. Install starter course of reverse shingles over eaves, and project course  $\frac{3}{4}$ " beyond eave as a drip edge.
- e. Half-Lap roll roofing.
- f. Install all materials to manufacturers' specifications.

### **Flashings**

- a. Install all standard rake, eave, edge, vent, collar, step and counterflashings. It is understood that all required flashings are included in the Bid Price. Contractor shall consult with the Owner about color of flashing. Unless otherwise specified, new flashing material is to match existing in color.
- b. All projects shall include sound counterflashing around all chimneys, and be included in the Bid Price. Existing counterflashing may be left in place and reworked if such flashing is sound.

### **Roof Vents**

The required number of roof vents shall be installed to code standards, and included in the Bid Price.

### **General**

- a. Contractor shall report any dryrot or damaged members to the Owner or the PHB.
- b. Contractor shall prevent debris generated from the work to enter either the roof drainage system or the environs.
- c. Gutters to be cleaned free of debris as a condition for completion of roof work.
- d. Temporary covering for roof is to be used to protect property from damage due to adverse weather.
- e. Roofing fasteners shall be galvanized or stainless steel, and long enough to achieve maximum security into the sheathing without penetrating the sheathing; for stapling, air pressure shall be properly gauged to secure the shingles without compromising their integrity by crushing them.

## **20. SIDING**

### **Definitions**

- a. Repair: Renail loose siding; replace missing or damaged parts; putty and caulk, as required; make weathertight.
- b. Replace: Remove and dispose of existing siding and replace with new.
- c. Install: Install new materials over existing surfaces.

### **Quality Criteria**

- a. Specifically state in the Proposal the brand, style and material of the proposed siding.
- b. Installation of repair work shall be accomplished in a workmanlike manner, and in accordance with code (if applicable) and manufacturer's instructions.

### **Siding**

- a. Aluminum and Steel: Color-coated sheet metal over a substrate of rigid foam insulation.
- b. Plastic: Solid-colored rigid vinyl over a substrate of rigid foam insulation.
- c. Wood: Match existing style with compatible materials; discuss with Owner regarding selection.
- d. For Repair or Partial Replacement: Match existing siding in gauge, pattern, style, size, texture and color.

### **Accessories**

- a. Aluminum nails for vinyl work.
- b. Vinyl and aluminum corner closures fabricated for use with the type and size of siding used. For repair or partial replacement, match existing.
- c. With wood siding, it shall be understood that window and door trim is included in the Bid Price; for aluminum and vinyl siding, it shall be understood that window, door and soffit trim is not included in the Bid Price unless otherwise stated in the Contract.

### **Preparation**

- a. Repair:
  1. Remove damaged siding, as necessary; replace, if necessary, with product to match existing in color style and materials; or repair siding, as possible; putty and caulk, as necessary.
  2. Remove loose or damaged corner closures and flashing; replace with products compatible in color, style and materials
- b. Replacement:
  1. Remove existing siding and fasteners over the entire area.
  2. Repair framing or subsurfaces to provide sound, even base for siding.
    - a. Cut out damaged sheathing to center of bearing.
    - b. Install new sheathing to match existing in thickness and durability.
  3. Set loose nails and firmly secure sheathing.

## **21. SMOKE DETECTORS**

Location Standard: Locate as required by code.

Materials Standard: Contractor is responsible to identify when battery-operated smoke detectors are sufficient, or when hardwired smoke detectors are required. When hardwired smoke detectors are

required, it is understood that the Bid Price shall include all work necessary to affect the installation, repair damage to surfaces for access wiring, and the required electrical permit.

Note: If, after the work commences, it became evident that hardwired smoke detectors were required when they were not initially considered as required, the PHB will determine the extent of the Contractor's reasonable responsibility to know about the requirement, and assign the degree of responsibility in fulfilling the requirement. If PHB's determination is not agreeable by all parties, arbitration will decide the matter, as it will decide the party (or parties) responsible for paying for the cost of arbitration. The party or parties responsible for payment to the Arbitrator will be decided by the Arbitrator.

## **22. SOILS and GROUND COVERINGS**

All soils and ground coverings brought onto the property shall have a lead content of less than 200 parts per million. PHB may, at its own discretion, or upon request by the Owner, test the new soil or ground cover to determine the lead content. If the soil or ground cover is found to be greater than 200 parts per million, it shall be the Contractor's responsibility to remove and replace the soil or ground cover with suitable material at his own expense.

## **23. WINDOWS**

### **Definitions**

- a. Repair: Correct defects in jamb, sill, sash, sash cords, screens, frames, hardware or operating mechanism; adjust for smooth operation.
- b. Replace: Replace window sash or assembly.
- c. Free Windows: Painted shut and otherwise immovable windows to operate freely, and their hardware to be adjusted for smooth function.

### **General**

- a. All replacement window sash and assembly installations shall conform to code requirements. If a header is altered, a permit is required.
- b. The Contractor shall state specifically in the Proposal the manufacturer, the style and the location of each window to be replaced.
- c. Replacement assemblies shall match existing styles, sizes and type, as near as possible.
- d. Unless otherwise noted in the Contract, the color of the replacement window shall be white.
- e. All new or replacement windows shall be lockable from the interior.
- f. Repaired and replaced windows shall be plumb, straight, square, level, fit tightly for weatherization, and operate smoothly with minimal friction.

- g. Unless otherwise stated in the Contract, all window repairs shall include the installation of window clips if the result of the repair is a loose sash.
- h. If surfaces of window sash have either been identified or are presumed to contain lead-based paint, window latching hardware shall be cleaned free of paint or replaced.
- i. If window sash or casings have either been identified or are presumed to contain lead-based paint, and if the Contract does not stipulate whether sash cords will be abandoned or replaced, it will be assumed that the Contractor will abandon the sash cords and install window clips.
- j. For pane replacements, glazing shall be smooth and even and match existing style.
- k. Unless otherwise stated in the Contract, all interior and exterior trim affected by the window replacement shall be reinstalled. If trim is damaged in its removal, it shall be repaired, if possible, or replaced in-kind with existing style. Such work is understood to be included in the Bid Price.