

STANDARD SPECIFICATIONS

FOR

REHABILITATION



COMMUNITY DEVELOPMENT

CITY OF CEDAR FALLS, IOWA

SEPTEMBER 2015

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Section 100.0 GENERAL CONDITIONS

The following, known as the “General Conditions”, apply in full and equal force to each and every Contract or Subcontract and are to be a part of every such Contract.

100.1 Bids

Bids received must be for the proper completion of all work as set forth in the List of Work, Specifications, and Drawings if applicable. Each Bidder is required to include in their Bid all the various branches or categories of work as listed herein. Only Bids submitted on the form provided herein will be accepted.

The Bidder or a representative of the Bidder’s firm must attend the “Pre-bid Conference” at the time and date set by the City staff. Failure to attend the “Pre-bid Conference” will result in the disallowance of any Bid submitted by the Bidder pertaining to the property involved.

The successful Bidder will be required to sign contract documents within 10 calendar days of bid opening.

100.2 Site Inspections

Each Bidder should visit the site and fully familiarize themselves with all existing conditions relating to the proposed rehabilitation work. The Bidder shall also thoroughly examine and familiarize themselves with the Drawings, Specifications and all other Contract Documents. The Bidder, Contractor by the execution of the Contract, shall in no way be relieved of any obligation under the Contract due to their failure to receive or examine any form of legal instrument or to visit the site and acquaint themselves with the conditions there existing and the Owner and/or City will be justified in rejecting any claim based on the “conditions”, latent or otherwise.

100.3 Owner’s Rights

Parties involved are to understand that the Owner and/or the City reserves the right to reject any and all bids. Owner or Owner’s agent shall have the right of color selection when needed. Contractor will be advised of selections prior to start of work.

100.4 Permits

All permits or licenses necessary for the completion of the proposed work must be obtained and paid for by the Contractor. All permits, general and mechanical, must be obtained before work commences. No bills will be paid unless all permits have been obtained.

100.5 Codes

When the work is completed, the improvements must conform throughout to the then existing Building Codes, Laws and Regulations of the City.

100.6 Liability

Each Contractor must carry adequate Liability Insurance, as stated herein, for damages and accidents that may result directly or indirectly from the performance of work as called for in this Contract; either to the building, to the general public, or to surrounding and/or adjoining property, or to employees, laborers, mechanics or other persons. The Owner will carry Hazard and Fire Insurance on the property, but this insurance does not necessarily cover damage to or loss of Contractor's tools, equipment or materials stored on the property. The Contractor shall hold and indemnify the Owner against any and all damages, injury or accidents suffered under the performance of this Contract or as a result of the storage of materials on the property.

100.7 Proceed Order

The City and the Owner will jointly issue a written Authorization to Proceed. Such Authorization to Proceed is not to be used in lieu of a Building Permit.

100.8 Premises Maintenance

Each Contractor shall endeavor to keep the premises clean and orderly during the course of the work. Upon completion of the work, the Contractor shall immediately remove all rubbish, refuse and unused materials from the premises and surrounding areas. Materials and equipment that have been removed, and are no longer necessary for the fulfillment of the Contract, shall belong to the Contractor, unless otherwise stipulated.

100.9 Checking

The Contractor and each Subcontractor will be held responsible for the accuracy and quality of their portion of the work when completed. Therefore, the Contractor and/or each Subcontractor is to examine the work performed by others, to assure that the dimensions, locations, etc., of the previous work has been completed in accord with the Specifications and Drawings contained herein before proceeding to perform their own portion of the work.

100.10 Labor Material

The Contractor is to furnish all cartage, labor, equipment, etc., at their expense, which may be necessary to the completion of the Contract. The materials installed must be new and the best quality as specified and the labor shall be performed by skilled and competent craftsmen.

The City reserves the right to have personnel removed from the job who are not performing their services in a workmanlike manner.

100.11 Substitutions

It is not the intent of these specifications to exclude any products or materials of equal or greater quality to those specified herein. Trade names used are exemplary, and intended to establish desired quality. Before any substitutions are made, the written consent of the City must be obtained.

100.12 Guarantees

The Contractor shall guarantee the material and workmanship used in performance of the Contract for a period of one year and agrees to replace faulty material or workmanship at no cost to the City or the Owner. The one-year period shall begin on the date of the final acceptance of completed work. All material and product guarantees must be given to the Owner at the completion of work.

100.13 Installation

All work and materials must be applied in accordance with the applicable manufacturer's latest instructions and specifications. Any proposed variations to the instructions or specifications must be called to the City's attention prior to application.

100.14 Extra Work

The Contractor shall not make side agreements with Owner and/or Owner's agent for additional work or materials over and above that specified in the List of Work. The Contractor and all Subcontractors will refrain from offering suggestions to Owners regarding changes to the List of Work or other Contract documents. Any additional work not authorized in advance by the City will not be paid for by the City.

100.15 Utilities

The Owners and/or Owner's agents shall provide the Contractor with the services of water and electricity at no charge. During the cold weather season, the Owner shall provide and maintain adequate heat in enclosed work areas.

100.16 Working Conditions

Where buildings to be remodeled are furnished and occupied, the Contractor and Subcontractors shall make allowances in their Bids for whatever inconvenience is incurred, i.e., working around furniture, adjusting working hours to accommodate occupants daily routines, etc. The Contractor shall cover all carpets and furniture in the work area with drop cloths. Passageways and hallways shall be kept clear of debris, lumber, or equipment. Bulk materials may not be stored inside the building. The Owner shall make a reasonable effort to move furniture and rugs to create clear working space for the Contractor.

100.17 Damage by Contractor

The Contractor shall be responsible for repairs or damages to surrounding work areas that were caused by the Contractor, or their Subcontractors.

100.18 Notification of Start of Work

The Contractor shall give the City and the Owner 24 hours' notice of their intent to begin work.

100.19 Acceptance

Acceptance of all work is the sole responsibility of the City and shall be in writing prior to issuance of payouts.

100.20 Hidden Defects

If during the progress of the work, hidden conditions are exposed which reveal structural or other defects, and which preclude the continuation of work in accord with the agreement or may be in violation of the City's Building or Housing Codes, the Contractor shall cease all work in the subject area and request a site evaluation and consultation with a representative of the City. When appropriate determinations have been made the Contractor will be given instructions to proceed or a change order may be issued.

100.21 General

The following specifications together with the List of Work, General Conditions and Instructions to Bidder form the basis of this work. Contractors shall base their estimates on work to be done only as indicated on the List of Work, Drawings and/or Specifications. However, Contractors shall assume certain related responsibilities regarding adjustments to areas abutting principal work during the normal process of construction.

The submission of a Bid shall be evidence of the Contractor having acquainted themselves with the job site and their willingness to conform to all codes and project requirements without additional compensation.

100.22 Scope

The Contractor shall furnish all labor, tools, equipment, materials and permits required for the completion of all work anticipated by this section.

The City shall make periodic visits to verify the progress and direction of work and make decisions on all other matters relating to the execution and progress of the work or the interpretation of Contract documents.

Upon receiving a contractor's invoice, the City staff will inspect the invoiced line items for quality and completion before a payment is made. The City reserves the right to deny any portion of an invoice if a line item is found to be incomplete or unsatisfactorily completed.

Section 200.0 SITEWORK

200.1 Earthwork

Topsoil:

In all instances, where the present surface grades of the site are disturbed, a minimum of 4" of topsoil, black dirt, shall be placed over the disturbed area. Placement shall be in a manner so as to assure proper surface drainage and grades shall conform as nearly as possible to those present prior to start of work.

Trenches:

In all instances where trenches are cut under hard surface-paved areas, the trench back-fill material shall be sand with a minimum compacting of 95% density.

In all instances where trenches are cut, other than under hard surface-paved areas, an acceptable compacting method would be the use of a plate or hand tamper. Lightly compact soil to minimize settling effects. If compaction is unachievable due to pre-existing soil conditions, a change order must be made to supply and install soil that is of a condition suitable for compaction. A minimum of four inches of black dirt topsoil must be placed as the finish grade and comply with Top Soil requirements as stated in this section.

Seeding:

In all instances where the present surface grades of the site are disturbed, and after placement of required topsoil, the disturbed area shall be seeded

with a mixture of Kentucky Blue and Rye grass. Percentage of mixture to be two (2) parts Blue to one (1) part Rye.

200.2 Termite Treatment and Pest Control

Treat the entire structure in strict compliance and in accordance with the specifications of the Termite Control System, which will eliminate the present infestation. Make structural modifications, soil poisoning, drilling and flooding of masonry voids, which represent the major steps or fundamental principles and operations as suggested by the Termite Committee of the National Pest Control Association and approved by the U.S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.

Obtain termite warranty from the qualified applicator, and present to this department, along with lien waivers at the time of final payment.

A licensed exterminator must be used for treatments to eliminate insects, rodents and other pests. Bid specifications will call for frequency.

200.3 Tree Trimming

Trim all branches either dead or alive that are detrimental to structure as determined by inspection made by this department. Contractor shall remove all debris from premises. Wound dressings shall not be applied.

200.4 Fill and Seal Cistern and/or Abandoned Septic Tank

Break concrete bottom, remove or cut and seal tap lines leading from the cistern. Fill cistern to within four (4) feet of the surface using appropriate backfill material and methods.

Break out top walls and remove same from property. Continue to backfill to a rough grade, four (4) inches below the surface. Fill with topsoil to a finish grade, seed, fertilizer and water as provided by those sections of this document.

Section 300.0 CONCRETE WORK

300.1 Concrete

May be obtained from a commercial ready-mix plant and be classified as an A-4 mix, minimum.

The Contractor may also mix their own mix with the following stipulations:

- A. Water shall be clean, taken from a source suitable for domestic consumption. Quantity of mixing water shall not exceed five and one-half (5 ½) gallons per bag of cement, including the free water contained in the aggregate.
- B. The concrete shall have a compressive strength, at 28 days, of at least the required design strength but not less than 3000 psi.

Minimum temperature for normal placement is 40 degrees F. Mixing and placement in temperatures below 40 degrees F only as approved and directed by the City. All frost must be out of the ground. If temperatures within the first 36 hours drop below 32 degrees F, then the concrete is to either be covered with burlap or visqueen and straw.

Finish providing a smooth surface true to cross-section and grade.

The Contractor shall provide expansion joints where new concrete abuts existing concrete slabs or masonry walls, at 10-foot intervals for driveways, and 20-foot intervals for sidewalks. Score all exterior line slabs at 10-foot intervals for driveways and 5-foot intervals for sidewalks.

Concrete shall be kept moist to insure proper curing.

All sidewalks shall be 4” thick, driveways 6” thick. Pitch surfaces to assure adequate surface drainage.

Finish surfaces to be broomed with ½” radius on edges and joints.

300.2 Concrete Steps

Steps may be precast concrete or cast in place. Cast steps must be reinforced. All steps must set on 42” piers, a slab or house foundation.

Section 400.0 MASONRY

400.1 Masonry

Mortar shall conform to the requirements of the Building Code for the specific purpose for which it is to be used.

No masonry shall be built when the temperature is below 20 degrees F on a rising temperature, or 32 degrees F if on a falling temperature, at a point where the work is in progress, unless provision is made to protect against freezing. No frozen material shall be built upon.

All joints shall be completely filled with mortar.

All brick, stone or block used shall conform as closely as possible to adjacent work. Samples shall be approved by the City before starting work.

All damaged or loose brick, in area to be rebuilt, must be removed until sound brickwork is encountered.

New brick patches shall be toothed into and match in size, joints, and bond the existing work, and effectively dampened prior to setting in place.

Face brickwork shall be tied to back-up work with headers or galvanized steel ties or let into existing back-up wall as required.

Chases and recesses cut into or built in masonry walls shall conform to the Building Code.

New work shall be anchored and/or bonded to existing work as required by the Building Code.

Tuck-pointing – All surfaces shall be thoroughly cleaned by brushing and washing to remove all dirt and loose material. Any loose mortar is to be removed to a depth of $\frac{3}{4}$ inch. If there are cracks in either the masonry or cast-in-place, the walls shall be cut back to form a V-shaped groove, at least $\frac{1}{2}$ inch wide and $\frac{3}{4}$ inch deep. Both mortar joints and V-shaped grooves shall be cleaned of all dust or other loose material and then wetted before being filled with prescribed mortar. Mortar color to match existing as closely as possible.

Cut stone sills or copings shall be Indiana limestone cut to match adjacent stones and anchored to masonry with non-corroding metal anchors and dowels. Use proper stone mortar as per Code requirements.

All surfaces to be plastered must be thoroughly cleaned and wetted before plastering. A bonding agent must be applied to the surface to be plastered or added to the plaster mix.

Section 500.0

SIDING

500.1

Aluminum Siding

All aluminum siding is to be .024 gauge. 3/8" Styrofoam backing, or drop-in backing, may be applied if specified. Materials to be Alcoa, or approved equal.

All fittings, corners or other material to be .024 gauge, matching aluminum. Corners are to be matching color and aluminum. If replacement of certain areas of the siding is being done, and post corners exist, then replacement of post corners is allowed.

All wiring, plumbing or similar access holes through siding to be sealed by caulk or other approved material, to be supplied by contractor.

Install new dryer vents upon installation of new siding.

PVC mounting plates required for light fixtures on all aluminum or vinyl siding.

Reinstall any existing house numbers or replace after residing.

When covering door and window casing with aluminum coil stock, .024 gauge, cover entire outside casing.

When covering windowsills with aluminum coil stock, .024 gauge, cover and adequately secure entire windowsill.

When capping soffits and fascia with aluminum coil stock, .024 gauge, soffits shall be vented in accordance with Code.

Owner to make color selection from contractor's samples.

500.2 Vinyl Siding

Vinyl siding shall be installed according to manufacturer's specifications and be Mastic or equal. Insulation board shall be installed behind all siding and 3/8" thick. No regrind vinyl siding will be allowed.

Capping of soffit with vinyl is only allowable when specified or with prior written approval. If installing vinyl soffit, soffit must have perforated venting. Capping of fascia with vinyl is not allowable

All window and door exterior casings shall be trimmed with appropriate J-Channel. J-Channel corners shall be mitered, or the use of pre-manufactured E-Z corners is acceptable.

All window and door siding accessories must be fitted and fastened in a fashion that promotes positive water shed away from the outermost layer of siding material. Caulking of gaps exceeding 1/8" is not acceptable.

500.3 Vertical Plywood Siding

Vertical plywood siding shall be at least 5/8" thick. No hardboard vertical siding allowed unless approved.

500.4 Hardboard Siding

Hardboard siding must be at least 3/8" thick. Butt joints must be made on a stud. Metal joints must be used. All nails must be galvanized or aluminum.

NOTE: All electrical service meters must be pulled away from the wall to allow the siding to be applied behind the meter.

500.5 Grilles and Louvers

The attic space shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain and snow. Existing ventilation areas are not to be covered unless specified.

500.6 Window and Door Exterior Casing Build-Out

Window and door exterior casings and sills shall be built out to project past the window and/or door siding trim piece, the J-Channel, a minimum of 1/4" any time an existing siding material is to remain in place.

Modification of an existing window or door exterior casing is acceptable when the existing casing measures more than four inches perpendicular to the installed plane of the casing. All casing widths and projections, except for the sill, shall be consistent with and to each other. The overlaying of siding materials over existing flat casing is acceptable as long as the new siding material remains on the same plane as the majority of the other siding; i.e., the siding shouldn't bow out over the window or door casing.

The installation of a window or door exterior casing shall not impede the windows or doors original function, including the weeping system and/or screen.

Section 600.0 CARPENTRY AND MISCELLANEOUS INSTALLATION

600.1 Workmanship

Carpenter work shall be performed by skilled journeymen. Workmanship shall produce level, straight, plumb and true conditions.

600.2 Lumber

Framing lumber throughout shall be "construction" grade or better. Reuse of any wrecked-out or second-hand lumber is prohibited, unless approved in advance by the City. Avoid using new lumber, which has excess moisture content. Structural members shall be in accordance with Uniform Building Code.

600.3 Wood Trim

Redwood Ploughed fascia, straight grained clear or #1. Casings, moldings and other finished millwork shall not have more than a 6 – 12 percent moisture content. Exterior trim materials shall be protected against dampness during and after delivery. It shall be stored in well-ventilated spaces and not exposed to extreme changes in temperature and/or humidity.

Casings, moldings and other finished millwork that is to be painted or stained shall be of #1 grade material or better and have all exposed surfaces sanded smooth. Material shall not have open knotholes, cracked knots, chips, checks, mill markings or other imperfections that would present a hazard to an occupant. All nail holes shall be filled with wood putty or filler prior to painting or staining.

Contractor shall exercise reasonable care in handling and fitting so as to insure that no undue further preparation is required of other trades to complete final installation in an acceptable manner. All joints shall be tight so as to exclude water and formed in such manner to conceal shrinkage. Exterior trim shall be securely nailed, using galvanized siding nails. All door and window trim shall be in single length without splicing, and corners shall be mitered to allow for as close as fit as possible. Running trim shall be in long lengths and jointed only where solid fastenings can be made. End joints in built-up members shall be well distributed. Besides mitering exterior corners, interior corners and/or angles shall be coped. All interior casings shall have matching mitered joints whenever possible. Mitered joints shall have carpenter's glue applied to the face of each miter prior to installation and be finish nailed together. Excess glue shall be removed from all surfaces it may be on. The use of wood fillers should be used sparingly. Wherever necessary, woodwork shall be scribed to adjoining brickwork, stone, stucco or other dissimilar material.

600.4 Handrails

Interior handrails are to be securely screwed into wall studs. No rough edges are to exist. Handrails shall have mitered returns that extend to the wall. Finish with 2 coats paint or varnish.

600.5 Egress Window Installation (for basement areas)

The installation of egress windows shall conform to, but not be limited by, the following standards.

The excavation for an egress window shall extend to the dwelling's footings. Where possible, a capped tile should be installed vertically starting a maximum of 4" below grade of the window well's floor and

should extend to the dwelling's existing perimeter tile system and be tied into the dwelling's existing perimeter tile system. All excavated areas shall be backfilled with washed stone to promote adequate drainage of the window well. The window well shall have a heavy-duty wrought iron guard railing with an attached ladder installed. Materials around the exterior of the window well shall be replaced to match the existing grade and/or material as closely as possible. Where needed, black topsoil shall be placed a minimum of 4" deep on all affected areas. All affected areas shall be seeded.

600.6 Battery-operated Smoke and Carbon Monoxide Detector Installation

Install one U. L. approved battery-operated dual sensor smoke detector in each bedroom and one on each level of the dwelling outside and in a common area of the sleeping rooms. Install one battery-operated carbon monoxide detector in a common area on every level of the dwelling that has sleeping rooms. Leave one intact smoke detector package including all instructions at the residence for examination. Note: Dual sensor means ionization and photoelectric. In lieu of separate dual sensor smoke and carbon monoxide detectors on each level of the dwelling in a common area, a dual carbon monoxide/smoke detector can be used.

Section 700.0 ROOFING

700.1 Roofing (Re-roofing over existing roof)

Materials – All materials shall be exactly as those specified in color and weight. Any claim by the roofing contractor as to the suitability of existing roof material, including sheathing, weight or method of installation of materials specified, as being unsatisfactory to render first class work will be considered void unless such claims are in writing and submitted with Bid.

All shingles will be Architectural fiberglass asphalt, 240#/sq. with a minimum 30-year warranty or greater, applied over 15 lb. felt on exposed sheathing. An ice/water shield is to be applied per the City of Cedar Falls Building code requirements. All rolled roofing material shall be minimum 3-ply.

All materials shall be installed as per manufacturer's instructions.

All color selections shall be first approved by the Owner. No substitution of materials will be accepted unless first approved in writing by the City.

Where no materials or colors are specified, the Contractor shall use their professional judgment in selecting materials of known quality to produce a first class installation.

Metal roof edge shall be required on any tear-off, and when roof is to be reshingled.

Laced valleys are accepted over metal flashing or rolled roofing.

New sheathing shall be ½” exterior grade plywood or ½” exterior grade wafer board when completing total tear-offs.

700.2 Roof Preparation

In no instance shall new shingles be placed over more than two existing layers of shingles. (Unless otherwise specified in Bid Specifications.)

Where old asphalt shingles are to remain in place, the following method of preparation shall be followed:

1. Nail down or cut away all loose, curled or lifted shingles.
2. Remove all loose and protruding nails.
3. Remove all wood edging strips and replace with new – metal type around complete exposed edges of roofing.
4. Sweep the entire surface clear and free of all loose debris.
5. Gutters and downspouts shall be cleared of all debris regardless if it is roofing materials or not. All gutter and downspout debris shall be removed from the property and properly disposed of.

When new asphalt roofing is to be laid over “old roll roofing”, the following preparation shall be followed:

1. Slit all buckles and nail segments down smoothly. Remove all wood edging.
2. Remove all loose and protruding nails.
3. Proper ventilation shall be required on re-roofing and complete tear-offs.

700.3 Flashings

The following flashing specifications refer to situations that require flashing on installation where the new roof is to be applied over existing roof.

Open Valleys – Must be metal flashing as a base, and rolled roofing must be applied over it.

Closed Valleys – May be metal or 55# rolled roofing base if shingles are laced over.

Chimney Flashing – Serviceable old metal flashing shall be left in place and reused, but if badly deteriorated, it shall be removed and new flashing replaced as per original method of installation.

Metal flashings accepted are: copper, tin, aluminum or galvanized steel.

Side and Base Flashing – Shall be a strip of metal flashing applied a minimum of 8” on the existing roof using one (1) row of nails and 4” up under metal flashing on side of chimney and secured with a heavy coating of plastic asphalt cement.

Back Base Flashing – If original construction does not provide a saddle or cricket, the following installation shall apply.

Flashing material shall consist of a 36” wide strip of metal flashing, applied to lie 24” up the roof and 12” up the rear face of the chimney. The flashing is to go under shingles and into mortar joints.

If a saddle or cricket does appear, the previous method, only over the saddle or cricket, is to be used.

Tin shingles or step flashing is to be used along sidewalls or chimneys.

Section 800.0 INSULATION

800.1 Material

All insulation shown on drawings or specifications herein shall be cellulose or fiberglass building insulation as manufactured by Owens-Corning Fiberglass Corporation, Toledo, Ohio and/or approved equal. Thermal Resistant “R” values of the insulation shall be R-38 to R-49 in ceilings and R-11 to R-22 in walls. Insulation shall be installed in accordance with the manufacturer’s recommendations.

Foam insulation in walls may be used if prior approval is obtained from the City.

Rim joist insulation shall be batt insulation and have vapor barrier and be neatly secured.

When insulating crawl spaces, batt insulation must be installed with vapor barrier to warm side and properly secured with hangers or chicken wire. Venting to Code will be required on all insulation work.

When blowing in sidewall insulation the siding must be removed. The hole should be sealed and siding replaced.

Cellulose, fiberglass or rock wool are all approved for blowing in attics or sidewalls. Cellulose insulation shall be formaldehyde-free.

Section 900.0 DOORS, WINDOWS AND GLAZING

900.1 Workmanship

Carpenter work shall be performed by skilled journeymen. Workmanship shall produce level, straight, plumb and true conditions. All components of a new door or window shall be properly cleaned after installation.

The City shall have general supervision and direction of work and make decisions on all other matters relating to the execution and progress of the work or the interpretation of Contract drawings and related documents.

900.2 Lumber

Framing lumber throughout shall be new “construction” grade or better. Reuse of any wrecked-out or second-hand lumber is prohibited.

900.3 Backing

The Contractor shall furnish and install all blocks and grounds for plasterer or dry wall contractor as the case may be.

900.40 Doors

900.41 Storms

Storm doors shall be mill finish aluminum and with storm and screen, unless otherwise specified standard hardware with pneumatic closer on all doors. Larson LifeCore or approved equal.

900.42 Interior

Make-up of doors shall be all wood stiles. Doors shall be birch or mahogany flush unless otherwise specified. Inside doors shall be 1-3/8” hollow core, complete with two (2) butt hinges, 3-1/2 x 3-1/2 and doorset. Contractor to verify exact height and width. Door will be installed plumb, with clearance of 1/8” at head and jamb. Clearance at floor, adjust to materials used on floor. Adjust all hardware so door works properly and smoothly. All hardware will be Dexter, Stanley or approved equal. Install doorstops where necessary.

900.43 Exterior

Doors shall be solid core or metal unless otherwise specified. Exterior doors shall be solid core with three (3) butt hinges, 4" x 4" and doorset. Contractor to verify exact height and width. Doors will be installed plumb with clearance of 1/8" at head and jamb and threshold. Install weather stripping around entire opening. Adjust all hardware so doors work properly and smoothly. All hardware will be Dexter, Stanley or approved equal. Provide Owner with two (2) sets of keys. Where more than one exterior door is installed, all locks shall be keyed alike. Install doorstops where necessary.

900.44 Thresholds

All new exterior prime door installations shall include new thresholds.

900.45 Finishes

Door frames and jambs to be finished in same manner as doors.

900.50 Windows

All wood windows shall be pre-glazed, pre-primed Crestline or equal. All new units shall be weather-stripped. Apply new casing finished to match existing unless otherwise specified.

Replacement windows must be Amcraft Grand Estates or approved equal. To include inside and outside stops as needed. Finish to cover. When installing replacements, capping as needed must be included in contractor's bid price.

Glass in windows installed within 24" of any hinged door must be tempered.

All bathroom windows must have tempered glass installed.

Opaque glass in bathroom will be the owner's option.

All windows are to be Energy Star Rated.

900.51 Types

900.511 Fixed Windows

Shall consist of a frame and glazed stationary sash.

900.512 Double-Hung and Single-Hung Windows

Double-hung windows shall have two operating sash; single hung shall - have only the lower sash operative.

The sash shall move vertically within the window frame and be able to be maintained in a desired position by a fraction fit against the frame or with balancing devices.

900.513 Casement Windows

Shall be side-hinged sash, mounted to swing outward. May contain one or two operating sash. Must be able to open 100% for ventilation.

900.514 Horizontal Sliding Windows

Shall have two or more sash of which at least one moves horizontally within the window frame.

900.515 Awning Windows

Shall have one or more top-hinged out-swinging sash.

900.516 Hopper Windows

Shall have one or more bottom-hinged, in-swinging sash.

900.52 Basement Windows

Basement window shall be American Craftsman #70 or approved equal.

900.53 Storm Windows

Aluminum storm-screen combination windows shall be mill finish or painted finish aluminum, 2-track windows. Larson or equal.

900.54 Glazing

All glass must be not less than "B" quality single strength glass. For glass areas greater than 10 sq. ft., use double strength or better. Provide insulating glass in homes where most other windows have insulating glass installed. Glass shall be tempered where required by all applicable building codes.

900.55 Installation

Windows should always be checked for squareness and equal spacing of joints prior to installation. Braces should be renailed if necessary and left in place until the window has been installed and is ready for trimming. The frame should be plumbed and fastened securely in the rough opening. Adequate shimming should be provided so as not to distort the frame during nailing. The spaces between finished frame and rough frame should be completely filled with insulation. Drip caps and/or flashing over the cap or exterior casing are required to prevent leakage at the head jamb. The entire unit shall be well caulked at the juncture of the exterior casing and the wall finish, preferably after being prime coated, but prior to finish painting.

Interior stops must be installed carefully for a snug, weatherproof fit against sash. Weather stripping and hardware must be adjusted for proper operation and closure, according to manufacturer's instructions. Interior trim must be applied carefully to seal the wall cavity between the rough frame and the finish frame.

Protect windows and store out of weather. Keep paint or varnish off weather stripping and interior finish hardware.

Do not paint metal or plastic sash guides. Glazing compound should be painted by slightly overlapping onto glass on both face putty and back putty runs.

900.56 Hardware

Awning type window – Provide an under screen rotary gear, push bar or lever type operator. Sash or snap lock.

Casement type window – May have similar rotary gear operators, with either sliding hinges or extension hinges. Sash lock.

Double hung horizontal sliding windows – Install cam-action sash locks which draw the sash together at the meeting stiles (or rails) while pushing the sash outward against the frames to compress the weather stripping.

Hardware exposed to weather, such as locks, sash lifts and various operators must be of a corrosion-resistant standard.

Section 1000.0 FINISHING

1000.1 Materials

Gypsum wallboard shall be ½” thick unless otherwise specified. All edges shall be tapered. All trim to be pulled and reinstalled unless otherwise specified.

Moisture-resistant or water-resistant board or cement board shall be ½” thick and shall have a green face paper. Both the face paper and the core are treated to withstand the effects of moisture and high humidity. This board is used as a base for ceramic tile and other non-absorbent finish materials and shall be used in all shower areas.

1000.2 Fasteners

Nails or Screws:

Nailing shall be done with the “double nailing system”. Refer to ASA A97.1 specification for “double nailing” procedures.

The board shall be held in firm contact with the nailing member while the nails are being driven. Nails or screws shall proceed from central portion of board towards edges. The nails shall be driven home with the heads slightly below the surface of the board in a dimple formed by the driving tool. Care shall be taken to avoid breaking the paper face. Improperly driven nails shall be carefully removed.

Adhesive Method:

Apply adhesive to center of attachment face of framing members in a 3/8” x 3/8” continuous bead. Apply a zigzag bead (8 o.c. crests) to framing where two board edges of ends are butted together. However, for predecorated wallboard, apply parallel beads of adhesive along each edge of face of framing members where wallboard joints occur. Apply only as much adhesive as can be covered by wallboard in 30 minutes.

Pre-bow board by storing overnight in such a position that the ends of each panel curve away from the base layer when put in vertical mounting position.

Panels applied with adhesive shall have sufficient temporary nails, bracing or shoring in addition to the permanent fasteners to insure solid contact with the framing members.

Install appropriate size and type of corner bead and casting bead at locations as needed.

Temporarily brace, as required, to assure proper contact and edge alignment of panels.

1000.30 Installation

Preparation for Work:

Examine and inspect materials to which gypsum board is to be applied. Remedy all defects prior to installation of drywall. Any defects in the finished installation due to misaligned framing or other cause will be the responsibility of the work performed under that section of the

specifications and such defects shall be remedied before application of drywall.

1000.31 Cutting Wallboard

Gypsum wallboards shall be cut by scoring and breaking, or by sawing working from the face side. Where board meets projecting surfaces, it shall be scribed neatly.

Maintain a uniform room temperature between 55 degrees F and 70 degrees F in cold weather during application and until completely dry. Provide adequate ventilation.

1000.32 Installing Wallboard

Gypsum wallboard shall be applied first to ceiling at right angles to framing members, then to walls. Boards of maximum practical length shall be used so that no absolute minimum number of end joints occur. Boards shall be brought into contact with each other but shall not be forced into place.

Wallboard joints at openings shall be located so that no end joint will align with edges of opening. End joints shall be staggered, and joints on opposite sides of partition shall not occur on the same stud.

1000.4 Joint Treatment Materials

Joint tape shall be perforated.

Joint compound shall be powdered or ready-mixed.

1000.5 Joint and Corner and Topping Compound

Joint compound and topping compound shall be mixed in accordance with printed instructions contained on the package.

A uniformly thin layer of joint compound shall be applied over the joint approximately 4" wide. The tape shall be centered over the joint and embedded into the compound leaving sufficient joint compound under the tape to provide proper bond. Ceiling and wall angles and inside corner angles shall be reinforced with the tape folded to conform to the angle and embedded into the compound.

After compound is thoroughly dry (approximately 24 hours for regular compound), the tape shall be covered with a coat of joint compound or topping compound spread over the tape, approximately 3" on each side of the tape, and feathered out at the edge. After thoroughly dry, another coat of joint compound or topping compound shall be applied with a slight, uniform crown over the joint. This coat shall be smooth and the edges feathered approximately 3" beyond the preceding coat.

All inside corners shall be coated with at least one coat of joint compound or topping compound with the edges feathered out.

All nail or screw heads or dimples shall receive three (3) coats of joint compound or topping compound. This may be applied as each coat is applied to the joints, allowing 24 hours drying time between coats.

Flanges of wallboard corner bead shall be concealed by at least two (2) coats of compound. The first coat shall be joint compound, and the second coat may be joint compound or topping compound feathered out approximately 9" on both sides of the exposed metal nose.

Allow each application of compound to joints and nail heads to dry, then sand if necessary. Caution shall be used to avoid roughing of the wallboard paper. All wallboard and treated areas shall be smooth and ready for decoration.

1000.6 Metal Accessories

Corner beads shall be galvanized steel (1" x 1" for 1/2" and 3/8" board) (1" x 1-1/4" for 1/2" and 5/8" board) (1-1/4" x 1-1/4" for 2 layer construction) (1-18" x 1-1/8" for crimping to any wallboard corner) (Multi-Flex Metal Tape Bead).

1000.7 Texture Materials and Procedures

Spray applied to ceilings in a coarse, medium or medium-fine texture, according to specifications.

Wall spray – Spray applied to walls or ceilings in an orange peel, a spatter or a crater texture pattern, according to specifications.

Drying time of 24 hours minimum shall be allowed.

Temperature shall be maintained uniformly between 55 degrees F and 70 degrees F in cold weather during the application of the joint compound, the primer (used for surface preparation) and the texturing until each is thoroughly dry.

Gypsum wallboard shall be attached to the framing in accordance with above specifications. Apply tape and joint compound in the conventional manner to all joints on the surface prior to texturing.

1000.8 Plaster Patching

Join up new and old plaster work neat and flush. All new work shall match existing plaster finishes. All old plaster or lath to be patched shall first be primed with "Plaster-weld".

1000.9 Plastering Materials

Plaster (new –total thickness—3/4" (3/8" lath, 1/4" base coat, 1/8" putty coat).

Metal lath—3.4# diamond mesh.

Metal grounds—66# expanded flange.

Outside corners--#1—A—exp. corner bead.

Inside corners—self-edge cornernite.

Base coat—red top gyp. cement.

White coat—red top hydrated lime.

Stucco—U.S.G. cement stucco.

Kalcote type board may be used.

1000.10 Lath

All existing plaster surfaces that are to be replastered shall be covered with wire lath.

1000.11 Protection

Plaster or drywall contractor shall protect all interior furnishings and floors and all finished and unfinished work of building during the process of plastering, taping, or texturing.

Section 1100.0 FLOOR COVERING

1100.1 Quality

The finish floor material shall be smooth, sound and free of protrusions of any kind. Only first quality floor materials shall be furnished and installed.

1100.2 Materials

Floor Tile – Tile shall be 12" x 12" x 1/8" vinyl Armstrong or approved equal.

Sheet Vinyl – Sheet vinyl shall be standard grade sheet vinyl.

Carpet – All pad and carpet must meet Federal Housing Administration (FHA) minimum requirements for the applicable use area (Half-inch minimum thickness). All closet areas in room specified to be included.

Application – All materials shall be applied with manufacturer's suggested adhesives and in strict accordance with manufacturer's current

specifications. Owners have right of pattern and color choice for floor coverings from Contractor's samples.

1100.3 Installation

During the normal heating season, the application of all materials shall be at a temperature not less than 70 degrees F. All surfaces to receive resilient flooring shall be dry and clean.

When installing new floor tile or sheet vinyl any shoe mold, which is broken, cracked or deteriorated when removed, shall be replaced with new and finished with two coats of paint or varnish. Where none exists, new shall be installed.

If shoe molding and/or quarter round is taken up when installing carpeting, replace any broken, cracked or deteriorated with new to match existing woodwork, where applicable.

All doors to be trimmed as needed.

1100.4 Kitchens and Bathrooms

Only sheet vinyl shall be used in these rooms. In the bathroom the water closet shall be removed to retain the plane of the underlayment and sheet vinyl. Install new bowl seal and reset water closet. Replace water supply line if needed. If bathtub has legs, remove and reset in same manner.

The resetting of the stool and bathtub must be done by a licensed plumber.

1100.5 Underlayment

Underlayment board shall meet the following requirements: 1/4" or 3/8" plywood BBD solid core. Under no circumstances is mahogany underlayment to be used.

Underlayment shall be adequately nailed or stapled to prevent lifting, 2" on center for edges, 4" on center for the rest of sheet.

1100.6 Divider Strips

Use mill finish aluminum divider strips or edge trim to separate resilient floor surfaces from adjacent dissimilar materials.

Section 1200.0 INTERIOR PAINTING

1200.1 Prohibited Surfaces

Copper, bronze, chromium plate, nickel, stainless steel, aluminum, Monel metal, lead and lead-coated copper shall not be painted or finished, unless precisely specified.

Prior to the application of any paint or finishing material, if any surface to be finished cannot be put in proper condition for finishing with the implementation of Lead Safe Work Practices, the painting Contractor shall immediately notify the General Contractor and the City.

1200.2 Materials

All materials used on the work shall be exactly as specified in color and quality. Any claim by the painting Contractor as to the lack of suitability or procurement of any material specified, their unwillingness and/or inability to render first class work with same, must be in writing and submitted with their bid. All paints, filler material and any other material required to complete this Contract must be delivered in the original containers, seals and labels unbroken and intact.

Oil-based, satin or semi-gloss latex or enamel shall be used on all painted woodwork. Also all painted surfaces in bathrooms and kitchens shall be painted with oil-based, satin or semi-gloss latex or enamel.

Existing register covers shall be repainted with proper material.

If existing woodwork is painted, then “finish” shall mean scrape and paint using Lead Safe Work Practices. If existing woodwork is stained, then “finish” shall mean sand and varnish using Lead Safe Work Practices.

When a wall, ceiling, millwork or other surface is to be repaired and/or scraped and painted, the surface to be painted shall be the complete area, including all of the area’s accessories; i.e., all of the wall, including the chair railing, painted trim, or all of the ceiling including the crown molding, etc., unless otherwise specified.

When a surface is to be prepped, primed and painted to cover, the surface must be repaired following the methods explained in other sections of this document, primed with Kilz or a similar primer, and be covered with as many coats of paint as necessary to conceal the previous underlying painted surface. Visible brush strokes and/or roller tracks will not be accepted.

All materials shall be “PPG”, Sherwin Williams or approved equal. Apply as per manufacturer’s specifications for the surface material involved.

All cracks, other than hairline, shall be prepared with Pro-Krack Cote, or equal, and fiberglass mesh installed to manufacturer’s specifications. Re-texture surface as needed.

Where no materials are listed, the Contractor is to use their best judgment selecting materials of known, reliable manufacturers with which he is familiar.

All necessary materials shall be of the highest quality and only the same brand specified thinners to be used. They shall carry identifying labels on the containers.

Based on the terms of these specifications, a Bid shall be submitted including the use of materials of the quality and color specified. The Contractor will supply the name of the manufacturer with the specific brand, name and number of each product proposed. After the award, no substitution of materials for those mentioned in the accepted bids will be permitted.

All colors selected and approved by the owner shall be chosen from a pre-approved list of colors.

1200.3 Storage

All spoiled or used rags, waste, trash and paint containers must be removed from job site each night. Every precaution must be taken to avoid the danger of fire or personal injury.

1200.4 Prohibition of Lead-Based Paint Usage

Definition: “Lead-based paint” means paint or other surface coatings that contain lead equal to or exceeding 1.0 milligram per square centimeter or 0.5 percent by weight or 5,000 parts per million (ppm) by weight.

Deteriorated Paint: Replaces the term “Defective Paint”. Any interior or exterior paint or other coating that is peeling, chipping, flaking or cracking, or any painting or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate (The material directly beneath the painted surface out of which the components are constructed, including wood, drywall, plaster, concrete, brick or metal.).

Residential Property: A dwelling unit, including common areas, building exterior surfaces, and any surrounding land, including outbuildings, fences and play equipment affixed to the land, belonging to an owner and available for use by residents, but not including land used for agricultural, commercial, industrial or other non-residential purposes, and not including paint on the pavement of parking lots, garages, or roadways.

1200.5 Elimination or Reduction of Lead-Based Paint Hazard

Procedure: All deteriorated paint conditions shall be assumed to involve lead-based paint if built prior to 1978, and thus to constitute health hazards that must be corrected unless testing shows that lead is not present in the paint at a level equal to or exceeding 1.0 milligram per square centimeter or 0.5 percent by weight or 5,000 parts per million (ppm) by weight.

Treatment: Paint stabilization, the repairing of any physical defect in the substrate of a painted surface that is causing paint deterioration, removing loose paint and other material from the surface to be treated, and applying a new protective coating or paint.

Persons performing paint stabilization must be trained or supervised in accordance with the requirements at 24 CFR 35.1330 (a) (4), which states that a person performing interim controls must be trained in accordance with 29 CFR 1926.59, which is a training requirement of the Occupational Safety and Health Administration, and such persons must either be supervised by an individual certified as a lead-based paint abatement supervisor, or have successfully completed one of the following courses:

1. A lead-based paint abatement supervisor course accredited in accordance with 40 CFR 745.225.
2. A lead-based paint abatement worker course accredited in accordance with 40 CFR 745.225.
3. The lead-based paint abatement Maintenance Training Program, “Work Smart, Work Wet, and Work Clean to Work Lead-Safe”, prepared by the National Environmental Training Association for EPA and HUD.
4. “The Remodeler’s and Renovator’s Lead-Based Training Program”, prepared by HUD, based on a course developed by the National Association of the Remodeling Industry.
5. Any other course approved by HUD for this purpose. A list of approved courses can be downloaded from <http://www.hud.gov/lea>.

Prohibited Methods of Paint Removal: Prohibited methods of paint removal include the following:

1. Open flame burning or torching.
2. Machine sanding or grinding without a high-efficiency particulate air (HEPA) local exhaust control.

3. Abrasive blasting or sandblasting without HEPA local exhaust control.
4. Heat guns operating above 1100 degrees Fahrenheit or heat guns or other means which char the paint.
5. Dry sanding or dry scraping, except dry scraping in conjunction with heat guns or within 1 foot (0.3 meter) of electrical outlets, or when treating deteriorated paint spots totaling no more than 2 square feet (0.2 square meter) in any one interior room or space, or totaling no more than 20 square feet (2 square meters) on exterior surfaces.
6. Paint stripping in a poorly ventilated space using a volatile stripper that is a hazardous substance under the regulations of the Consumer Product Safety Commission.

Safe Work Practices: Safe work practices require that:

1. Prohibited methods of paint removal shall not be used.
2. Occupants and their belongings shall be protected.
3. After hazard reduction activities have been completed, the worksite shall be cleaned using cleaning methods, products, and devices that are successful in cleaning up dust-lead hazards, such as a HEPA vacuum or other method of equivalent efficacy, and lead-specific detergents or equivalent.
4. Safe work practices are not required, and clearance examinations and clearance reports are not required when maintenance or hazard reduction activities do not disturb painted surfaces that total more than:
 - a) 20 square feet (2 square meters) on exterior surfaces;
 - b) 2 square feet (0.2 square meter) in any one interior room or space; or
 - c) 10 percent of the total surface area on an interior or exterior type of component with a small surface area. Examples include windowsills, baseboards, and trim.

Clearance: An examination conducted following lead-based paint hazard reduction activities to determine that the hazard reduction activities are complete and that no settled dust-lead hazards exist in the dwelling unit or worksite. The clearance examination process includes a visual assessment, dust sampling, submission of samples for analysis for lead,

interpretation of sampling results, and preparation of a report. Clearance examinations must be performed in accordance with 24 CFR 35.1340, which states that clearance must be performed following interim controls, paint stabilization, standard treatments, ongoing lead-based paint maintenance or rehabilitation, unless the work performed is below the de minimis levels specified at 24 CFR 35.1350 (d).

Persons conducting clearance examinations must meet the qualifications set forth in 24 CFR 35.1340 (b) (1). The following personnel are qualified to conduct clearance examinations:

1. A certified risk assessor.
2. A certified lead-based paint inspector.
3. A technician licensed or certified by EPA or a State or Indian tribe to perform clearance examinations.
4. An uncertified person who has successfully completed a training course for clearance technicians that is developed or accepted by the Environmental Protection Agency (EPA) or a State or Indian tribe and that is given by a training provider accredited by EPA or a State or Indian tribe, provided a certified risk assessor or a certified lead-based paint inspector approves the work of the clearance technician and signs the report of the clearance examination.
5. For the purpose of this program clearance examinations will be completed by the Black Hawk County Health Department. The cost of the 1st clearance examination will be charged to the city. The cost of any additional clearance examinations due to clearance failure will be assessed to the contractor and deducted from any future payment.

Section 1300.0 EXTERIOR PAINTING

1300.1 Weather

No painting shall be done while the surface is cold and/or damp. No painting shall be done while cold, rainy or frosty weather prevails or where temperature will drop to or below 50 degrees F.

1300.2 Prohibitive Surfaces

Prior to the application of any paint or finishing material, if any surface to be finished cannot be put in proper condition for finishing with the implementation of Lead Safe Work Practices, the painting Contractor shall immediately notify the General Contractor and City.

1300.3 Application and Procedure

New galvanized metal surfaces shall be pretreated with a copper sulphate or zinc phosphate prior to painting. One (1) coat of selected primer and one (1) coat of selected color. Existing metal surfaces to be painted shall be brushed, sanded or otherwise cleaned before application of paint by using Lead Safe Work Practices.

All paint to be PPG, Sherwin Williams or approved equal.

All new metal or iron surfaces requiring paint application shall be shop primed or shall receive a field applied prime coat before final finish is applied.

All coats shall be thoroughly dry before applying succeeding coats.

An inspection shall be made of all existing surfaces to be painted to determine what will be required to prepare surface before application of paint. Areas found unacceptable shall be prepared using required Lead Safe Work Practice procedures to make surface ready for painting.

All work performed during work day will be terminated at a point where lap marks will not occur.

All new material to be painted or stained shall receive one (1) coat primer and one (1) coat finish. Any existing areas, where new materials are required, or areas where surface must be repaired and prepared for the required one (1) new coat primer and one (1) coat finish, will require the use of Lead Safe Work Practice procedures.

Color schedules shall be followed as specified. No color changes shall be permitted without first receiving approval from the owner.

Prime coats shall be tinted to the approximate color of finish coat.

All coatings to be smoothly and evenly applied. Knotholes, sap pores and other related items to be treated accordingly with an approved sealer.

All windows and doors requiring paint will be left operable. All windows and doors that have screens and/or storm windows (wood) that require painting shall be included in this Contract. Color to match that of window frame unless otherwise stated. All surfaces to be included.

All glass and screens shall be paint free.

All coatings shall be applied without reduction excepting those materials specifically required by manufacturer.

No new concrete or concrete surfaces are to be painted unless specified.

All new block, brick or masonry surfaces requiring paint will be allowed to cure completely before painting is attempted.

All colors shall be selected and approved by the owner.

Where no materials are listed, the Contractor is to use their professional judgment in selecting materials of known reliable manufacturers with which he is familiar. The material and the manufacturer must accompany the Bid.

Section 1400.0 PANELING

1400.1 Materials

Materials intended for use as finished wall surface panels are to be protected against temperature and humidity changes during and after delivery to the job site. They shall be stored in spaces where protected from damage by other materials and workmen moving within the space provided. Reasonable care must be exercised in handling and fitting so edges and finished surfaces are not scratched, gouged, scraped or splintered and otherwise defaced to prevent installation in acceptable condition. All joints shall be tight and aligned in a plumb and perpendicular line to the floor. Only full sheet application will be acceptable. All new window and/or door trim will be specified on bid sheets. Where patterns are used, care should be exercised to ensure continuity of design intended. Joints at wall intersections shall be carefully and neatly cut to fit against each other or into corner channels where used. Any holes for pipes, ducts, electrical outlets and switches shall be neatly cut, and closely fitted. All trim, whether metal or wood, shall match closely with the texture and finish of paneling used. Use molding strip, where applicable, where width of paneling is joined.

Include application of 3" baseboard where applicable or per Bid Specifications.

1400.2 Material Selection

Owner shall have right of panel selection.

1400.3 Paneling – Installation

Minimum thickness shall be no less than 5/32". Homeowner to have choice of texture, pattern and color. Paneling to be installed in accordance with manufacturer's specifications.

When paneling is to be installed in new construction, a backer sheet of at least 1/2" sheetrock will be installed first over the bare studs. When installed directly onto an existing wall, all loose or buckled plaster shall be removed; any hole(s) affecting the soundness of the installed paneling shall be filled in with appropriate materials. When furring strips are used, a minimum of 1" x 2" shall be allowed spaced 16" on center. All paneling shall be glued as well as nailed.

Section 1500.0 LAMINATES

1500.1 Materials

Where impervious surfaces are required, materials such as "Formica", "Nevamar", "Marlite", or approved equal may be used for wainscot for bathrooms, and shower stalls, or around kitchen stoves and other utility areas. The same procedures and requirements as apply to paneling are to be observed in addition to caulking joints where necessary in shower spaces and around tubs or kitchen countertop areas, and in utility spaces. All moldings shall be matching aluminum or plastic.

1500.2 Material Selection

Owner shall have right of material pattern and color from Contractor's samples.

1500.3 Installation

Install laminates in accordance with manufacturer's instructions. Do not install laminates over glossy or glazed surfaces without proper preparation of the surfaces.

1500.4 Preformed Countertops and Countertops

Countertops shall be made of wood, or plywood covered with Formica or approved equal with a 3-1/2" backsplash. Caulk area between countertop and wall. Molding to be matching plastic or aluminum. All installation shall be properly secured to cabinets. All countertops are to be preformed unless otherwise specified or approved by Rehabilitation Specialist.

Section 1600.0 WALL AND CEILING COVERINGS

1600.1 Materials

Care must be exercised in preparation of surfaces and conformity to design patterns upon installation of both paper and textile materials used for walls. Also, the manufacturer's recommended adhesives are to be used for the materials being installed with close adherence to the instructions for that particular product. Conformity to design and pattern is essential for acceptable quality of finished work. Electrical switch plates and receptacle covers, as well as fixtures and other apertures are to be closely fitted and neatly cut. Work is to be protected, and after installation, clean of surface dirt and free from smudges, paste and any marks not part of the design and texture or color pattern.

1600.2 Material Selection

Owner shall have right of material selection from Contractor's samples.

1600.3 Installation

All wallpaper or vinyl wall covering shall be applied properly with any pattern matched perfectly. Do not apply wall covering over new drywall surfaces without priming the surface properly.

1600.4 Suspended Ceilings

Remove all loose plaster. Install suspended grid type ceiling with fiber tile and translucent panels over lights where owner desires these. Grid system to be Conwed or equal. Fiber tile and translucent panels to be Gold Bond or equal. Installed to manufacturer's direction. Color and pattern to be selected from Contractor's samples.

1600.5 Tiled Ceilings

Remove loose plaster and install 1" x 3", #2 White Pine strips and apply fiber tile. Tile to have cove mould around ceiling at walls. Tile to be selected from Contractor's samples.

Section 1700.0 CABINETS

1700.1 Materials

All kitchen cabinets and vanities as called for in the Work Item List shall be Chadwood or equal.

All cabinets and vanities shall have the following: Solid wood doors or laminate-faced doors, metal drawer guides and self-closing hinges.

1700.2 Material Selection

Owner has right of material selection from Contractor's samples. Contractor is not required to furnish pulls unless specified in bid specifications.

1700.3 Installation

All cabinets shall be properly installed and secured to wall and to each other.

1700.4 Soffits

If soffits are called for in bid specification, use cabinet bulkhead from top of wall cabinet to ceiling. Frame soffit, cover with ½" sheetrock, tape and prepare for final finish.

Section 1800.0 MECHANICAL – Basic Materials and Methods

1800.1 Repairs

Contractor shall repair floors or walls with approved material where heating equipment or plumbing was removed, replaced or installed in a neat and workmanlike manner.

1800.2 Plumbing

Contractor shall furnish and install in perfect condition, ready for service all plumbing fixtures as specified on List of Work. All exposed metal shall be chromium plated.

Contractor shall do such cutting and opening as is necessary in a neat and workmanlike manner, and provide for the patching and repairing of same. Contractor shall make all plumbing pipe installations concealed, if possible. Piping shall be installed in the most direct route possible. Where existing fixture or plumbing is removed, walls or flooring shall be repaired and restored. Where a new fixture or plumbing is installed, such as plumbing venting pipes being exposed in a habitable room or a bathroom, the Contractor shall be responsible for boxing in such work and finishing same in a manner appropriate to the area involved.

Any new sink faucet installation shall require a shut-off valve to be installed.

Materials: All fixtures and appurtenances shall be American Standard, Kohler or approved equal. All work shall be to City Plumbing Code.

Owner shall have color selection where necessary.

Refer to Section 200 for required earthwork on water and sewer line installations.

1800.3 Water Heaters

Water heaters shall be 40 gal. Energy Star rated. Twelve year (10 year if a power vent) Rheem or equal, unless otherwise specified.

1800.4 Heating/Cooling Systems

All defective or abandoned heating/cooling equipment or ductwork shall be removed from the premises, including oil tanks.

All wiring devices shall be U.L. approved and installed according to City Electrical Code.

Forced air heating and central air conditioning equipment shall be Lennox, Century or approved equal. Sizing and efficiency specifications shall be provided by Cedar Falls Utilities Energy Services.

All furnace installations shall be a two-pipe venting system, with no exceptions.

Furnace filters shall be located in the return air drop and be readily accessible to change.

Chimney liners/vents shall be properly sized to service all appliances that are vented into them.

Whenever new work, such as heat runs, cold air returns, chimney pipes, etc., are exposed in any habitable room or bathroom, the heating Contractor shall be responsible for boxing in such work and finishing same in a manner appropriate to the area involved. Contractor shall make all HVAC installations concealed, if possible. Ductwork shall be installed in the most direct route possible.

Heating/Cooling equipment shall be completely wired.

A new programmable thermostat shall be included on all new furnace installations, except when noted otherwise in bid specifications. Honeywell or approved equal.

When rewiring or refeeding existing switches or outlets, these switches or outlets shall be replaced with new ones.

Section 1900.0 ELECTRICAL

1900.1 Materials and Methods

Service entrance equipment shall be according to computed load and NEC, latest edition, or City Electrical Code.

All fixtures as indicated on List of Work shall be furnished and installed complete with globes. To be selected by owner when necessary. Porcelain fixtures will be allowed in basement or unfinished areas only.

All wiring devices shall be Underwriter's Laboratories approved.

The Contractor shall make all electrical installations concealed, if possible. All electrical wiring shall be installed in the most direct route possible. The Contractor shall patch all existing surrounding surfaces that are damaged in the installation of the work in a neat and workmanlike manner.

All defective or abandoned wiring and equipment on interior and exterior of the building shall be removed. (Including the removal of service terminals and insulators.)

Any outside openings made by adding or removing equipment shall be caulked and resulting surface to match surrounding surface.

All new appliances drawing 10 amps or more shall be provided with a separate circuit and proper fuse or circuit breaker.

1900.2 Electric Smoke and Carbon Monoxide Detector Installation

Install one electric dual sensor smoke detector with battery backup in each bedroom and one on each level of the dwelling outside and in a common area of the sleeping rooms. Install one electric carbon monoxide detector with battery backup in a common area on every level of the dwelling that has sleeping rooms. Leave one intact smoke detector package including all instructions at the residence for examination. Note: Dual-sensor means ionization and photoelectric. In lieu of separate dual sensor smoke and carbon monoxide detectors on each level of the dwelling in a common area, a dual carbon monoxide/smoke detector can be used.

Section 2000.0 MISCELLANEOUS

2000.1 Metal Posts (Columns) and Railings

Steel Posts – Posts shall be 1500 lb. capacity, one or two pieces, with adjustable screws. Top plate shall be lug-bolted in place and entire post

made load bearing. Footing shall be to City Code. Basement support posts to be set on solid concrete block when replacing or adding to existing.

Railings and component parts shall be fabricated from milled steel; all joints must be welded and ground smooth, spacing of spindles and railing height to meet current Code requirements.

2000.2 Gutters and Downspouts

All gutters are to be “K” continuous type aluminum, .017 gauge minimum, finished. (acrylic enamel)

All gutter straps or brackets shall be matching aluminum, and shall be installed under roofing so that straps are not visible on the roof, where possible.

When repairing existing sheet metal or other gutters, use metals comparable with existing. All galvanized sheet metal to be .027 gauge on gutters and downspouts.

Downspouts shall run from gutter to grade and shall have a minimum 45 - degree elbow with extension. Downspouts shall be same finish as gutters. Splashblocks may be substituted for extensions.

Contractor to furnish all mastic, fittings, brackets and other parts.

Downspout extensions must be at least 48” long.

2000.3 Metal Handrails

All metal handrails are to be wrought iron and painted black.

2000.4 Caulking

All caulking is to be done in a professional manner that is smooth and neat in appearance. Excess caulking shall be immediately removed and affected surfaces properly cleaned.

A pure silicone caulk, GE silicones or equal, is required in bathrooms and kitchens. That includes around sinks, bathtubs, vinyl flooring and other areas that need to be sealed in bathrooms and kitchens.

The use of colored caulk will be required to patch or fill holes in any exterior siding materials. The use of clear caulk is not acceptable unless specified.

All other caulking must be done with a GE 25 year acrylic caulk or equal.

Section 2100.0

MATERIAL PRICE LIST (Not Installed – Retail Cost)

	<u>Minimum</u>	<u>Maximum</u>
<u>Floor Coverings</u>		
Sheet Vinyl	\$12.00 sq. yd.	\$15.00 sq. yd.
Jute-Back with Pad	\$17.00 sq. yd.	\$20.00 sq. yd.
Kanga-Back Carpet	\$10.00 sq. yd.	\$13.00 sq. yd.
<u>Wall Coverings</u>		
Paneling (4 x 8 sheet)	\$12.00 per sheet	\$20.00 per sheet
<u>Ceiling Coverings</u>		
Suspended Ceiling Grid and Tile	\$0.80 sq. ft.	\$1.00 sq. ft.
Tile Ceiling (Tile Only)	\$0.35 sq. ft.	\$0.45 sq. ft.
<u>Wallpaper</u>		
Kitchen/Bath (Waterproof)		\$20.00 Double Roll
Regular		\$20.00 Double Roll
<u>3- piece Shower Surround</u>		\$300.00 minimum