

## SPECIFICATIONS

July 19, 2018

## 2018 RENOVATIONS TO

## JOSLYN HOUSE

16 Maple Street  
Randolph, Vermont

**DIVISION 1 - GENERAL CONDITIONS**

**A. SCOPE OF WORK:** The overall work of this Contract comprises a variety of renovations, internal and external, to the building and mechanicals of an occupied elderly low and moderate income congregate independent housing facility located at 16 Maple Street, Randolph, Vermont known as the Joslyn House. The Scope of Work to be performed under this project is further described in the following exhibits, incorporated into this bid request:

- Exhibit A: Window Schedule
  - Exhibit B: HVAC Mechanical & Electrical Plans and Specs
  - Exhibit C: Elevator Pre-Inspection Checklist
  - Exhibit D: Porch & Ramp Design Plans
  - Exhibit E: Roofing Scope
  - Exhibit F: Basement Upgrades Sketch & Rendering
  - Exhibit G: Bathroom Upgrades Scope
  - Exhibit H: Site Plan
  - Exhibit I: Existing Conditions Drawing with room numbers, including A1.0 Basement Plan, A1.1 First Floor Plan, A1.2 Second Floor Plan, A1.3 Attic Floor Plan; A1.4 West & South Elevations, and A1.5 East & North Elevations
  - Exhibit J: Contractor/Owner Agreement template
- and as further detailed in these Specifications.

**B. CONTRACT FORM:** RACDC's "Owner/Contractor Agreement," attached as Exhibit J, will be the contract used under this project. The contract will incorporate the bid Specifications and Exhibits, subsequent bid response, and other documents or specifications, which may be developed.

**C. CONTRACT ADDENDUM:** Davis Bacon Wages are not required for this project. Compliance with lead paint regulations is required (EPA and HUD) – Note that as a senior housing facility, Joslyn House may be exempt from some of those provisions. ~~Contractor agrees to sign, and by doing so, agrees to comply with the requirements of the following attachments to the contract: –. These provisions pass down to the subcontractor(s).~~

**D. WORK BY OTHERS:** The following work is not included in this contract but may be going on simultaneously with the work in this scope. **It is the responsibility of the Contractor to coordinate with these trades on site:**

1. Elevator upgrades by Others.
2. Volunteer ramp construction & finish work, after porch construction and ramp framing by Contractor.
3. Volunteer porch painting after repair and insulation by others (to be determined).
4. Replacement of grease trap in basement.
5. Other repair & maintenance work by Owner and Owner representatives.

**E. CONTRACTOR'S DUTIES:** Except as specifically noted, the Contractor shall provide and pay for all labor, materials, taxes, equipment, tools, construction equipment, machinery, and other facilities and services necessary for proper execution and completion of work. Note that Owner is tax exempt and expects not to be charged tax for materials or equipment purchased on its behalf. If necessary or desirable, Owner can work with Contractor to arrange for purchase of materials needed for the project to reduce costs.

1. Contractor Use of Premises: Contractor shall limit his use of the premises for Work and Storage as specified by the Contract Documents.

2. Fees and Permits: The Owner shall secure and pay for all permits, including, as applicable, Act 250 Permit, Local Zoning Permit, and Public Building Permits. The Contractor shall pay for Fees, Licenses, and Inspections required for proper execution and completion of work.

3. Legal Requirements: Comply with codes, ordinances, rules, regulations, orders and other legal requirement of public authorities, which bear on performance of work. Promptly submit written notice Owner and to Architect or Engineer, as applicable, of observed variance of Contract Documents from legal requirements. It is not Contractor's responsibility to make certain that drawings and specifications comply with codes and regulations, but Contractor shall assume responsibility for Work known to be contrary to such requirements, without notice to Architect, Engineer and Owner.

Work shall comply with all federal, state, and local safety, building, and environmental codes, and that the contractor bears full responsibility to ensure that all necessary permits have been obtained. All products must be UL-listed and installed per manufacturer's instructions.

Contractors must be licensed to do business in Vermont and have a current certificate of good standing with the Vermont Secretary of State's Office, certify that they are not debarred by HUD and that the business is not an excluded party.

4. Workmanship and Safety Precautions: Work shall be executed in any orderly manner with consideration for occupants of adjacent buildings and the general public. Contractor shall take reasonable precautions for the safety of and prevention of damage to: employees, the Work itself, and other property at and adjacent to the site. Contractor shall not employ on Work unfit persons or persons not skilled in assigned work. All materials, components, and assemblies of work are to be installed in accordance with manufacturer's instructions and recommendations unless otherwise noted in this contract. The Contractor shall guarantee that the material utilized shall be of best quality, that the equipment shall be installed in a professional manner, and that all aspects of the project will be delivered in good working order complete and perfect in every respect. Contractor shall coordinate with local governing body regarding any requirements affecting execution of the work.

5. Inspections: Contractor is responsible for proper scheduling of all building inspections required by local and state authorities and as requested, must be present for any site inspection as required by project funders.

6. Delivery, Storage and Handling: Receive, store and handle products, materials and equipment in a manner which will prevent loss, deterioration and damage. Contractor is responsible for safekeeping and protection of products and materials stored on premises. Schedule deliveries to minimize long-term storage at project site. Contractor is responsible for all additional Storage and Work space required.

7. Cleaning: Contractor shall maintain a clean job site during construction, and upon completion of the work, shall remove waste materials, rubbish tools, equipment, and surplus materials and clean all sight exposed surfaces. Leave project clean and ready for occupancy.

8. Protection of Furniture: Owner is responsible for removing any furnishing which the contractor feels will be in the way or might be subject to damage. Contractor is to notify Owner in advance of start of project if any such removing of furniture will be required. Furniture which does not need to be removed shall be adequately covered and protected by the Contractor during the entire construction process. Contractor shall use floor to ceiling drop cloths to provide a dust barrier between workspace and existing living spaces. It is the responsibility of the Contractor to protect and cover any equipment not to be removed during demolition.

9. Debris: All debris shall be removed from the building daily. Accumulation of debris within the building will not be tolerated, nor will burning of debris on the site be permitted. All materials not indicated for salvage shall be removed from the site and properly disposed of. With prior permission of Owner, Contractor may locate dumpster on the site.

10. Waste Reduction Plan: The contractor will prepare a waste management plan prior to the commencement of the work. This plan will include provisions to separate, recycle and dispose of waste materials. Minimum separation plans include: untreated wood, cardboard and paper, construction materials, metals, trash and other recyclables.

11. Notice and Appropriate Behavior. Joslyn House will be occupied during renovations, although short-term temporary relocation of tenants may be necessary or desirable and may be permitted with prior approval of Owner. Contractor shall arrange to schedule of work to minimize disruptions to regular operations of Joslyn House and isolate areas of work that would cause dust, fumes or other potential adverse conditions for tenants, staff or visitors. Contractor shall provide a minimum of 48 hour notice in advance of disruptions to individual rooms or common areas where disruptions will require that tenants or staff avoid the area for a period of time. The notice will explain the work to be done, the area that will need to be avoided, and the estimated period of the disruption. Potential relocation of tenants from their room or staff from kitchen for more than 4 hours requires at least 3 days advance notice to Owner.

Joslyn House residents are considered a vulnerable population. Contractor is responsible for ensuring the appropriate behavior of employees, sub-contractors and anyone invited to the site by Contractor during the course of this work.

#### **F. SCHEDULE OF PAYMENT:**

1. Schedule of Values: Prior to the start of construction, Owner shall provide contractor with a Schedule of Values allocated to the various portions of the work, broken down according to bid form format and shall contain a thorough breakdown of labor, equipment, and material charges for each task. This Schedule of Values shall be used as the basis for applications for payment and will be the basis for reviewing all payments.
2. Progress Payments: Progress payments shall be made monthly. Five (5) days prior to the end of each month, the Contractor shall submit an application for payment with a Schedule of Values indicating the percentage of each item completed (the "Application for Payment") and receipts. The Owner and, as applicable, Architect or Engineer, shall review and approve this application. Payment shall be made within 20 days of the approval of the Application for Payment.
3. Retainage: Each application shall retain 10% of each progress payment due to the contractor for the duration of the project. Retainage shall be reduced, upon Substantial Completion of the Work, to 5% of the Contract Amount, including any approved change orders, or 200% of the value of incomplete work, whichever is greater. Establishment of the value of incomplete Work shall be at the sole discretion of the Owner. Values shall be itemized on Punch List of items to be completed.
4. Lien waivers: The Contractor may be required to provide lien waivers as part of the requisition procedure.
5. Federal Funding Requirements and Davis Bacon Wage Reporting: Not applicable to this project.

**G. INSURANCE:** The Contractor shall purchase from and maintain with a company or companies lawfully authorized to do business in the State of Vermont insurance for: protection from claims under Workers' Compensation Acts and other employee benefit acts which are applicable; automotive liability insurance to protect the Contractor from claims arising from the use of automobiles or trucks in connection with any Job; comprehensive general liability insurance to protect the Contractor from claims arising from bodily injury, including death, and from claims for damage to property which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by the Contractor or by a Subcontractor or anyone directly or indirectly employed by any of them. This insurance shall be written for not less than one million dollars and shall include contractual liability insurance applicable to the Contractor's obligations under this Contract. The policy shall be on an occurrence form and limits shall not be less than: \$1,000,000 Per Occurrence, \$1,000,000 General Aggregate, \$1,000,000 Products/Completed Operations Aggregate, and \$50,000 Fire/Legal/Liability. Certificates of such insurance shall be filed with the Owner prior to the commencement of the Work. Owner shall be named as additional insured on said liability policies. If any policy of insurance required by this paragraph expires prior to Final Completion of the Work, the Contractor shall provide the Owner with a renewal certificate showing current coverage for all of the insurance required by this paragraph.

**H. BONDING:** Contractor must be able to provide a 100% performance and 100% payment bond for the contract price.

**I. WARRANTIES:** Contractor shall provide a general project warranty for a period of one year from date of substantial completion to repair, replace, re-execute or otherwise correct any defect in workmanship, materials, and the like that fails to conform to the requirements of this contract. Also provide coincidental product warranty available on a product incorporated into the work, by virtue of manufacturer's publication of warranty without regard for application requirements.

1. Restore or remove-and-replace warranted work to its originally specified condition, at such time during warranty as it does not comply with or fulfill terms of warranty or this contract. Restore or remove-and-replace other work which has been damaged by failure of warranted work, or which must be removed and replaced to gain access to warranted work. Except as otherwise indicated or required by governing regulations, warranties do not cover consequential damages to property other than Work of the Contract, (e.g., building contents).

2. Cost of restoration or removal and replacement is Contractor's obligation, without regard to whether Owner has already benefited from use of failing work. Upon restoration or removal-and-replacement of warranted work which has failed, reinstate the original warranty period for defective item.

3. Warranties and warranty periods do not diminish implied warranties, and do not deprive owner of actions, rights and remedies otherwise available for Contractor's failure to fulfill requirements of the contract documents. Owner reserves right to reject coincidental product warranties considered to be conflicting with or detracting from requirements of the contract documents.

**J. ALTERNATES:** An alternate is an amount proposed by Bidders and stated on the Bid Form that will be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in the scope of Work of the Contract. Coordinate related work and modify or adjust adjacent work as required to ensure that the work affected by each accepted alternate is complete and fully integrated into the project. Schedule of Alternates follows:

Alternates are identified on the Bid Form in the Exhibits or Specifications.

**K. PRODUCTS SELECTION:** Where possible, provide entire required quantity of each generic product, material or equipment from a single source; and, where not possible to do so, match separate procurements as closely as possible.

1. To extent selection process is under Contractor's control, provide compatible products, material and equipment. Where available and complying with requirement, provide standard products which have been used previously and successfully in similar applications, and which are recommended by manufacturers for application indicated.

2. Provide named product which complies with requirements, or comply with requirements for gaining approval on "substitution" to select and use an unnamed product.

3. Selection of product which has been tested to show compliance with requirements, or has been certified by manufacturer to comply with prescribed requirements including indicted performances and applicable standards, is Contractor's option where no product names are indicated.

Contractor shall be eligible to receive Efficiency Vermont incentives and rebates and shall, to the greatest extent feasible, take advantage of incentives and rebates in the selection of products, and shall include and identify such cost reductions in the bid, if possible, or invoicing.

**L. SUBSTITUTIONS:** Contractor shall not substitute materials, equipment or methods unless such substitution has been specifically approved by the Owner. If a substitution is proposed, or where "or equivalent" is included in the scope, a fully documented submittal (including product data, samples where appropriate, detailed performance comparisons and evaluation, testing laboratory reports where applicable, schedule, cost information for proposed change order, Contractor's general certification of recommended substitution, and similar information germane to circumstance) of the proposed alternative product or method is required. Approval of substitutions is possible only by change order procedure. Substitutions may be submitted as qualifying under one or more of following circumstances:

1. Substitution is related to "or equal" or similar provision in contract documents.

2. Required product is not acceptable to governing authority, or determined to be non-compatible, or cannot be properly coordinated, warranted or insured, or has other recognized disability as certified by Contractor.

**M. DATA:** Drawings as required by this Contract to illustrate some portion of the work; showing fabrication, layout, setting or erection details shall be prepared by Contractor, Subcontractor, qualified supplier, distributor, or detailer.

1. Shop drawings and product data are to be reviewed by the General Contractor prior to submission to the Owner for their review for conformance with Contract Documents and Specifications as well as for coordination with other trades.

2. Review rendered on shop drawings is not a guarantee of measurements of building conditions. Review does not mean that drawings have been checked in detail or in any way relieve the responsibility or necessity of furnishing material or performing work required by the contract drawings and specifications. Modify manufacturer's standard schematic drawings to delete information which is not applicable. Supplement standard information brochures, diagrams, schedules, performance charts illustrations and other standard descriptive data to ; clearly mark pertinent materials, products or models; show dimensions and clearances required; show performance characteristics and capabilities; and show wiring diagrams and controls.

**N. NAMEPLATES:** Contractor shall provide permanent nameplates where indicated or needed for operation, information, and maintenance on products and equipment. Otherwise, do not allow manufacturer's trademarks or similar labels or name plates to be placed on products in locations where exposed to view after installation.

**O. JOB CONDITIONS:** Contractor is to visit the site prior to bid to survey conditions under which Work is to be done. No request for extra compensation will be considered for hardships encountered which would have been disclosed or made evident by a reasonable examination of the site.

1. Unanticipated Conditions: Should conditions of the Work indicate a required change of materials or methods, notify the Owner, and, as applicable, Architect or Engineer, to secure permission prior to proceeding. If uncovered conditions are not as anticipated or as indicated on the contract documents, immediately notify the Owner and secure needed directions. Do not proceed on areas of discrepancy until such discrepancies have been fully resolved.

2. Cutting and Patching: Cutting and patching of existing structure required to accommodate new construction to be done in a manner in keeping with the visual qualities of the existing and new construction. Work found to be cut and patched in an unsatisfactory manner must be removed and replaced. Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Submit proposal and request and obtain Owner/Architect's/Engineer's approval before proceeding with cut-and-patch of structural work.

3. General Demolition: Work shall be removed as indicated on drawings and as specified for class of work concerned, even though removal of such is not specified in full. Demolition work shall be done in an orderly manner. Install and maintain all necessary shoring, bracing and temporary supports to prevent rupture or collapsing of any part of the building.

4. Salvage Materials: Owner may retain ownership of, and the right to keep, any materials removed during demolition. Owner shall identify items which are to be salvaged and is responsible for removing them from the job site or protecting them during construction. Work related to removal, transportation, and/or storage of such salvaged items not specified to be salvaged in the Contract Documents shall be negotiated with the Contractor.

**P. TEMPORARY FACILITIES**: Contractor is to provide the following temporary facilities:

1. Temporary Electricity: Electricity is to be billed to the Owner and paid for by the Owner. Contractor is responsible for installing adequately sized temporary wiring as required for power tools so as not to overtax existing wiring, if necessary.

2. Temporary Heat: Contractor is responsible for providing and paying for temporary heat required to cure concrete if cold weather conditions are encountered and any other temporary heat required. Once drywall is ready to be taped, and permanent heat is installed, Owner shall pay for heating costs.

3. Sanitary Facilities: Contractor is responsible for providing temporary sanitary facilities if more than 4 workers will be on site at any given time, otherwise workers are permitted to use facilities in Joslyn House common areas.

#### **Q. ADA/HANDICAPPED ACCESSIBILITY**

This project falls under the requirements of the State of Vermont when it comes to interpretations of ADA, Act 88, and portions of the Fair Housing Act.

#### **R. OTHER REQUIREMENTS**

1. Contact Information: Contractor shall provide Owner with complete contact information for primary on-site and off-site project and administrative staff and sub-contractors.
2. O&M Manual. Contractor is responsible for providing Owner with a complete operations manual with warranties and invoices.

END OF DIVISION 1 - GENERAL CONDITIONS

## DIVISION 2 - SITE WORK

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**A. SCOPE:** Excavate as required for reconstruction of porch and ramp. See Exhibit D and any additional specifications provided by Architect for extent of excavation required and other detail. Work is to include restoring areas of pavement, lawns & plantings to match existing original condition or new design. Contractor is responsible for coordinating work with the local municipality and complying with local requirements.

**B. JOB CONDITIONS:** Contractor is to visit the site and observe conditions affecting site work. Contractor is responsible for providing any barricades, coverings, or other types of protection necessary to prevent damage to existing conditions on adjoining properties and existing conditions indicated to remain in place on Owner's property.

**C. SITE CLEARING:** Remove & salvage any vegetation or other above grade obstructions that interfere with installation of new construction. All salvaged vegetation to be replanted in existing locations. Remove pavement in areas of excavation that interfere with installation of new construction. All areas of removed pavement and new walkway to porch ramp are to be replaced with new pavement and brought to new condition.

**D. UTILITIES:** Locate existing underground utilities in areas of Work and provide adequate means of protection during Work to keep services in operation. Dig Safe must be consulted before any site work is begun.

**E. BACKFILL:** Foundation Backfill: The intent is to backfill with material that will allow groundwater to pass through the soils below grade (and below frost) and to provide an easier path for water to flow away from the building. Contractor shall be responsible for the complete system. On the surface, final grade should slope away from the building to take surface water away from the foundations as well. All backfill shall be clean, loose, granular, well-draining backfill free of construction debris or waste.

Compaction: It shall be the Contractor's responsibility to properly place and compact all materials and to correct any deficiencies resulting from insufficient or improper compaction. The Contractor shall determine type, size and weight of compactor test best suited to the work; control the lift thickness; insure that the applied effort (number of passes and travel speed) is uniformly applied; exert proper control over moisture content of the material; and insure other details necessary to obtain satisfactory results. In areas inaccessible to conventional compactors, impact rammers, plate or small drum vibrators, or pneumatic buttonhead compaction equipment may be used with lift thickness not exceeding 6 inches. Hand tampers will not be considered adequate.

### **F. TOPSOIL AND SEEDING:**

1. Topsoil: All disturbed areas are to be reseeded and to have a minimum of 4" of topsoil as a base. Topsoil is to be natural, fertile agricultural soil capable of sustaining vigorous plant growth. If insufficient topsoil is available from the stockpiles on site, provide additional topsoil at no expense to the Owner.

2. Fertilizer: Test top soil for needed amount of fertilizer. Add fertilizer as required. If no tests are performed, add fertilizer (10-20-20) at a rate of 10 pounds per 1000 sq.ft.

3. Seed: All disturbed areas are to be seeded and mulched unless otherwise noted (see Drawing for details). Seed shall be 10% Kentucky Blue Grass, 50% Manhattan Perennial Rye, and 40% Pennlawn Red fescue. Application shall be at a rate of five (5) pounds per 1000 sq.ft.

4. Grass Mulch: Provide hay or stalks of straw free from noxious weeds, at a rate of two (2) tons per acre.

END OF DIVISION 2 - SITE WORK

# DIVISION 3      CONCRETE

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## SECTION 03 3000 CAST-IN-PLACE CONCRETE

### PART 1 GENERAL

#### 1.01 SUBMITTALS

- A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.

#### 1.02 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

### PART 2 PRODUCTS

#### 2.01 FORMWORK

- A. Basis of Design: Sonotube Concrete Forms:
  - 1. Description: Multiple layers of 100 percent recycled paperboard, spirally wound, and laminated with adhesive.
  - 2. Interior Surface: Smooth with spiral seam. Alathon release and moisture barrier coating.
  - 3. Exterior Surface: Micryl moisture barrier coating.
  - 4. Diameter: As indicated on Drawings.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.

#### 2.02 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
  - 1. Type: Deformed billet-steel bars.
  - 2. Finish: Unfinished, unless otherwise indicated.

#### 2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
- C. Fly Ash: ASTM C618, Class C or F.
- D. Water: Clean and not detrimental to concrete.

#### 2.04 ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.

#### 2.05 CURING MATERIALS

- A. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309.
- B. Water: Potable, not detrimental to concrete.

## **2.06 CONCRETE MIX DESIGN**

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
- C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.
- D. Normal Weight Concrete:
  - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 3,000 pounds per square inch.
  - 2. Water-Cement Ratio: Maximum 40 percent by weight.
  - 3. Total Air Content: 4 percent, determined in accordance with ASTM C173/C173M.
  - 4. Maximum Slump: 3 inches.
  - 5. Maximum Aggregate Size: 5/8 inch.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.

### **3.02 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS**

- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

### **3.03 PLACING CONCRETE**

- A. Place concrete in accordance with ACI 304R.

### **3.04 CONCRETE FINISHING**

- A. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.

### **3.05 CURING AND PROTECTION**

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

**END OF SECTION**

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## **DIVISION 4      MASONRY INTENTIONALLY LEFT BLANK**

## **DIVISION 5 - METALS**

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- A. **SCOPE:** Provide and install all metals as specified here and elsewhere in specifications and drawings to provide complete job. This includes but is not limited to flashing & metal coil stock in division 7.
- B. **FASTENERS:** Provide all bolts, nuts, lag screws, wood screws, nails, ties, joist hangers, hilti anchors and staples as required and sized in accordance with commonly acceptable procedures. Fasteners exposed to the weather shall be galvanized. Fasteners used in exterior cedar or pressure treated lumber shall be stainless steel.

END OF DIVISION 5 - METALS

## DIVISION 6 - WOOD AND PLASTICS

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A. **SCOPE:** Provide all lumber required for but not limited to framing of walls, floors, partitions, roof structures, blocking, wall and roof sheathings and all exposed wood members including trim, fascias, frames, siding, louvers, roof trim, interior trim, and all other lumber to complete the construction.

B. **CODE AND REGULATIONS:** All wood construction work shall comply with the following codes and regulations, as may from time to time be updated or superceded:

1. National Design Specification For Wood Construction and It's Supplement by the National Forest Products Associations.
2. American Softwood Lumber Standard by the National Bureau of Standards, voluntary product standard PS 20-70.
3. Plywood Design Specification by the American Plywood Association.
4. Softwood Plywood, Construction and Industrial, U.S. product standard PSI-66.

C. **DIMENSIONAL FRAMING LUMBER:** All framing shall be level, plumb, square, and/or to accommodate existing conditions. Provide nails, blocking, reinforcing, strapping and shims as required in accordance with common framing practice to satisfactorily accomplish work as shown on drawings.

1. **General:** All lumber shall be straight and true, in sound condition, kiln dried with a maximum moisture content of 19%. All dimension lumber shall bear the grade and mark of the association under whose rules it is produced and a mark of mill identification.

2. **Rating:** Headers, studs, plates, floor joists, and roof rafters shall be rated to have min. fiber stress of 1200 psi. (Spruce-Pine Fir #2 or better).

3. **Installation:** All wood framing construction shall be erected true to line and dimensions, well fastened and properly braced.

4. **Headers:** Frame windows where shown on the drawings. Provide wood headers, jacks, sills, and cripple studs at openings. Wood members used for headers or built-up beams shall not have checks or splits longer than the wide face width. Frame shall be constructed to transmit load through solid members to structure below. See drawings for sizes. All built-up headers shall be glued with structural glue (PL 400 or equal), and nailed or screwed from both sides with the following nailing pattern (# nails per foot):

2 x 6's : 3 nails/foot

2 x 8's : 3 nails/foot

2 x 10's: 4 nails/foot

2 x 12's: 5 nails/foot

\*Note that non-structural headers and jack studs may be framed differently to avoid wasting lumber and to improve the insulating value of the envelope.

5. **Continuity:** Continuity in framing shall be provided at all bearing conditions in order to transfer the loads to the foundation or other framing. Full depth blocking shall be used in the floor platform framing under wood post or built-up studs to provide full bearing through framing. Double joist shall be used under all partitions parallel to joist. Line up studs with floor joists. Use Simpson Strong Tie steel connectors to fasten beams to stud or column supports.

D. **EXTERIOR TRIM:** Provide exterior trim in all areas as shown on the drawings to the following schedule. All knots in wood trim shall be sound and solid. See drawings for trim profiles.

1. **Window Trim for Fiberglass windows:** Provide 5/4" Azek or equal smooth face PVC to match existing on site.
2. **Watertable for Fiberglass windows:** Provide 5/4" Azek or equal smooth face PVC of size indicated on drawings.
3. **Retain trim for wooden window replacements.**

E. **INTERIOR TRIM AND WOODWORK:** Provide interior trim in all areas unless otherwise noted to the following schedule. All knots in wood trim shall be sound and solid. Trim profiles to match existing.

1. Window Trim: Existing interior wood trim to remain and to only be removed if required and reinstalled to match existing at jamb casings, head casing & sill casings unless otherwise indicated. Jamb, head & sill extensions at window to be painted wood of custom size by Contractor.

## END OF DIVISION 6 - WOOD AND PLASTICS

## DIVISION 7 - THERMAL AND MOISTURE PROTECTION

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A. **SCOPE:** Provide and install work included but not limited to wall, ceiling, and slab vapor or air barriers, damp proofing, and waterproofing systems, insulation systems, roofing, flashing, and caulking.

B. **INSULATION:**

1. Wall Insulation: At main building Dense Packed cellulose exterior walls at porch entries. **(Add-Alt or by Others.)**

C. **RUBBERIZED ASPHALTIC MEMBRANE:** Provide "Grace Vicor" or equal at perimeter of windows.

D. **FLASHING:** Provide flashing as shown on drawings and according to the following schedule:

1. Cap Flashing: Provide pre-painted aluminum cap flashing over exposed windows, exposed trim boards, and other areas requiring protection.

2. Wall Flashing: Provide stepped sheet galvanized steel 12" vertical, 6" horizontal "L" with baked enamel finish. Color to be chosen from manufacturer standard line.

3. Metal Coil Stock: Provide metal closure piece at bottom return of insulation, typical around perimeter of building.

E. **CAULKING:** To reduce infiltration through the exterior shell, several areas shall receive caulking.

1. Caulk joint between sill and concrete in addition to the sill sealer. Fill all voids between window frames and gaps 1/4" or greater in exterior wall with "Great Stuff" or equivalent urethane 1 part foam from can.

2. Caulk all window frames, trim, and moldings as necessary with paintable siliconized latex silicone caulk of color to match darkest adjoining material.

3. Provide paintable siliconized latex caulk on interior work as needed.

Refer to Exhibit E - Roofing Scope, which contains Photo Elevations prepared for previous work on Joslyn House, and which indicates the roof areas and scope of work for replacement of existing roofing.

## END OF DIVISION 7 - THERMAL AND MOISTURE PROTECTION

## DIVISION 8 – WINDOWS

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Reference is made to Exhibit A – JH Window Schedule Set, prepared initially by Black River Design for a previous project involving replacement of a portion of the windows, and used as the base plan for specifications for window replacements requested in this bid. Exhibit A includes the following:

- Exh A1.: JH Window Schedule FINAL
- Exh A2: JH Basement and First Floor Locations FINAL
- Exh A3: JH Second Floor & Attic Plans FINAL
- Exh A4: JH Photograph Elevations FINAL
- Exh A5: JH Concrete Wall Cross-Section FINAL

A. **SCOPE:** Provide and install window frames and case out all window openings. Provide and install all necessary hardware. See window schedules and drawings for window sizes, types, location, manufacturer, and general information as indicated on Exhibit A – Window Schedule Set.

B. **WINDOWS:**

1. **Base Bid:** All remaining resident room windows not previously replaced with fiberglass (12); replace kitchen door with double window 6” above counter height (1).

2. **Alternate A:** All remaining common area and wood frame house resident rooms not previously replaced, shown with blue window number on Exhibit A – Window Tag “A” (1); Window Tag “B” (2); Window Tag “C” (9); Window Tag “D” (2); Window Tag “E” (3), Window Tag “F” (1), Window Tag “G” (2), Window Tag “H” (2), Window Tag “I” (2), Window Tag “J” (2), Window Tag “K” (1), Window Tag “L” (2), Window Tag “M” (1), Window Tag “N” (1), Window Tag “O” (1), Window Tag “P” (3), Window Tag “Q” (2), Window Tag “R” (2), Window Tag “S” (1), Window Tag “T” (2), Window Tag “U” (0), Window Tag “V” (0), Window Tag “W” (0), Window Tag “Y” (0), Window Tag “Z” (1). See special note under Installation, on Quality Assurance.

C. **BASE BID WINDOWS:** Provide Marvin Infinity fiberglass windows in sizes, types and colors indicated in Exhibit A. Fiberglass windows to have standard white finishes, extension jambs of adequate size and standard hardware. Provide double sash lifts on all operable windows. Interior & Exterior colors as indicated on Exhibit A – Window Schedule. Hardware white on all white frames, TBD on other frames. Standard full size aluminum screens to be charcoal color. Prefinished (white) custom wood jamb extensions to be supplied by Contractor and field applied for type of exterior wall construction specified. See schedule for sizes and styles. Glazing to be Low e II/Argon Glazing (except for fire rated windows). Window to be rated with a U-factor of .29 or less. Azek Cellular PVC Exterior Casing, and painted wood interior jamb extensions. **Note: Contractor to see existing new window installations on site for similar detailing @ existing metal frame locations.** Remove corner vinyl window currently located in kitchen. Reframe and fill with matching interior and exterior finishes.

**ADD-ALTERNATE WINDOWS:** Replacement windows. Marvin Infinity fiberglass in sizes, types and colors indicated in Exhibit A. Provide double sash lifts on all operable windows (color approved in advance by Owner).

**ADD-ALTERNATE GLAZING:** Glazing to Low e III/Argon Glazing for all replacement windows facing South and West and fixed windows facing East.

**Marvin dealer, Windows and Doors by Brownell, required to be onsite for first window installation in each type of existing wall construction.**

END OF DIVISION 8 - WINDOWS

## DIVISION 9 - FINISHES

A. **SCOPE:** Provide all interior and exterior materials and finishes as herein specified and as indicated on drawings and finish schedule for complete job.

B. **GYPSUM WALLBOARD:** Provide drywall in thickness to match for patching at windows, taped primed and painted. Provide mfr's standard metal trim accessories, of the beaded type with face flanges for concealment in joint compound.

1. **Accessories:** Provide corner beads, L-type edge trim beads, U-type trim beads, and one piece control beads as needed. Provide the following associated products recommended by gypsum board manufacturer : laminating adhesives, gypsum board fasteners, acoustical sealant.

2. **Support:** Provide furring and shims as needed for plumb and true installation. Install supplementary framing, runners, furring, blocking and bracing at openings and terminations in gypsum drywall and where required for support of other work which cannot be adequately supported on gypsum board alone.

3. **Installation:** Install gypsum boards in lengths and directions that will minimize number of end joints. Isolate drywall work from abutting structural and masonry work. Apply joint tape and joint compound at joints (both directions) between gypsum boards. Apply compound at accessory flanges, penetrations, fastener heads and surface defects. Install compound in 3 coats (plus prefill of cracks where recommended by mfr.). Sand after last 2 coats. Correct defects visible at a distance of 3 feet.

C. **PAINTING:** Paints shall be the best quality product from the following manufacturers: California, Pittsburgh, Sherwin Williams or Benjamin Moore. All ceiling white shall be Benjamin Moore. Owner shall make color selection (up to 2 colors) and may request prepared samples on finish surface.

1. **Knots:** Seal all knots on new wood prior to priming with Parks shellac BIN sealer or approved equal. Knots, resinous wood, and nail holes shall be sealed with prepared sealer prior to priming.

2. **Execution:** Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence or quality of work and which cannot be put into an acceptable condition through specified preparation work. Do not proceed with surface preparation or coating application until surface and environmental conditions are suitable. Prepare surface in accordance with printed instruction of manufacturer of finish to be applied. Sand and dust between coats on gypsum wallboard to remove defects visible from 3 foot distance. Apply materials with suitable brushes, rollers, or spraying equipment. Rate of application shall not exceed that recommended by paint manufacturer for surface involved. Application shall be one coat of primer and two finish coats unless otherwise indicated. Comply with recommendation of product manufacturer for drying time between the succeeding coats. Finish coats shall be smooth, free of brush marks, streaks, laps or pile up of paints, and skipped or missed areas. Finish metal surfaces shall be free of skips, voids, or pinholes in any coat when tested with a low voltage detector. Make edges of paint adjoining over materials or colors clean and sharp with no overlapping.

**Paint Schedule:** Apply finishes on surfaces in accordance with the following or equivalent, or as more specifically detailed in exhibits:

EXTERIOR SURFACES	CT.	SHEEN	TYPE	REMARKS
Ferrous Metal - Weathered or Repainted	1st	Primer	KEM KROMIK UNIVERSAL METAL PRIMER (B50 Series)	Primer shall be rust inhibitive, sand prior to painting, if finish is peeling or rusting, refer to new metal specification
	2nd	High Gloss	STEELMASTER 9500 Silicon Alkyd (B56-300 Series)	
	3rd	High Gloss	STEELMASTER 9500 Silicon Alkyd (B56-300 Series)	

INTERIOR SURFACES	CT.	SHEEN	TYPE	REMARKS
Gypsum Board Existing & New Walls	1st	Eggshell	Latex, to match existing	Tint to final color.
	2nd	Eggshell	Latex, to match existing	
Trim Wood Painted (Opaque) Finish	1st	Underbody	Zinsser Cover Primer or equivalent	Prime knots thoroughly to prevent bleed-through. Sand between coats □
	2nd	Semi-gloss	Alkyd or Latex Enamel	
	3rd	Semi-gloss	Alkyd or Latex Enamel	
Cement Walls in Basement	1st	Satin or Semi-gloss	Latex Interior Masonry Paint & Primer	Prep, Prime & Paint
	2nd	Satin or Semi-gloss	Latex Interior Masonry Paint & Primer	
	3 <sup>rd</sup>	Satin or Semi-gloss	Latex Interior Masonry Paint & Primer	

END OF DIVISION 9 - FINISHES

## **DIVISION 10, 11, 12, 13 INTENTIONALLY LEFT BLANK**

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## **DIVISION 14 CONVEYING EQUIPMENT**

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Reference is made to Exhibit C – Elevator Pre-Inspection Checklist, prepared by Bay State Elevator, with work to be bid in this request indicated in yellow highlights.

## DIVISION 15 MECHANICALS

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The basic components of the HVAC work include:

- a. Re-piping of heating system: **BASE BID**
- b. Boiler replacement: **ADD-ALTERNATE**
- c. Domestic heat pump water heater replacement: **BASE BID**
- d. Installation of new hard-wired thermostat system and sensors: **BASE BID**
- e. Cold climate heat pump systems: **ADD-ALTERNATE**
- f. Ducting for cold climate heat system heads and related carpentry & wall repair or conduit, interior and exterior. Add-Alt

**Exhibit B:** The Specifications prepared by Pearson & Associates, Mechanical & Electrical Engineers, sections 22 00 00 – 1 through 23 25 00 – 2, are incorporated as Exhibit B1: JH HVAC Mechanical Specifications FINAL, and the associated plans entitled **“Joslyn House VHAC Upgrades, dated 07/10/18,** are included as:

- **B2: JH HVAC Mechanical Plans FINAL**
  - M1.1 Basement Mechanical Demo Plan
  - M1.2 “Basement Enlarged Demo Plan
  - M1.3 First Floor Mechanical Demo Plan
  - M1.4 Second Floor Mechanical Demo Plan
  - M1.5 Third Floor Mechanical Demo Plan
  - M2.1 Basement Mechanical Proposed Plan
  - M2.2 Basement Enlarged Mechanical Plan
  - M2.3 Basement Enlarged Plumbing Plan
  - M2.4 First Floor Mechanical Proposed Plan
  - M2.5 Second Floor Mechanical Proposed Plan
  - M2.6 Third Floor Mechanical Proposed Plan
  - M3.1 Mechanical Piping Schematic
  - M4.1 Plumbing Schematic
  - M5.1 Mechanical Schedules
- **B3: JH HVAC Electrical Plans FINAL**
  - E1.1 Joslyn House HVAC Upgrades – Basement Electrical Demo Plan
  - E2.1 Basement Electrical Proposed Plan
  - E2.1 First Floor Electrical Plan

## **DIVISION 16 ELECTRICAL**

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Scope of Work: Installation of lighting, plugs, switches, equipment and other electrical connections described in the exhibits or outlined in the specifications herein to be installed and wired in accordance with the manufacturer's directions. All electrical work is to be performed by an electrician licensed to perform work in the State of Vermont. All materials shall be UL listed and approved. Contractor shall perform and install all electrical work in accordance with applicable state, federal and local regulations and codes. Owner to pre-approve choice of color and style of switches and plugs in new construction and rehab areas from selection of standard options.

- End of Division 16 Electrical -

## **DIVISION 32 EXTERIOR IMPROVEMENTS**

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### **Front Porch Entrance and Handicapped Ramp Updates**

The Plans and Specifications prepared by Ward Joyce Design, Architecture firm, dated July 12, 2018, are attached as Exhibit D – Porch and Ramp Design Plans, which include the following:

- Cover Page: Proposed Ramp Renovation Scope of Work
- A1: Foundation & Site Plan
- A2: Proposed Ramp – Elevations
- A3: Sectional Details
- E1: Existing Conditions – Site Plan
- E2: Front Elevation Existing Conditions
- E3: West Elevation Existing Conditions

Additional scope of work details will be made available at walk-through.

## **ADDITIONAL INTERIOR IMPROVEMENTS**

Reference is made to Exhibit F: JH Unfinished Basement Upgrades, including the following:

Page 1 (F): Basement Upgrades Scope

Page 2 (F1): Sketch of Basement Upgrades

Page 3 (F2): Rendering of unfinished basement sketch

Reference is made to Exhibit G: Additional Interior Upgrades Scope.