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SPECIFICATIONS
FOR
ROOF COVERING REPLACEMENT
To
Hartwells crown house



Canal view (East)

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SECTION 01000: GENERAL INSTRUCTIONS

1.1 GENERAL DESCRIPTION:

Generally, the work required will include the necessary labour, materials, tools, equipment, transportation and supervision to complete the demolition & removal and installation of a new cedar roof, flashings and accessories as described in the specifications and on the corresponding sketches.

1.2 SITE LOCATION:

- 903 Hartwells Locks Lane, Ottawa, ON

1.3 SCHEDULE:

Work to be completed by March 31st, 2024.

1.4 TAXES:

Pay all taxes properly levied by law including Federal, Provincial and Municipal.

1.5 CODES and REGULATIONS:

Adhere to all local, Provincial and Federal regulations applicable to the work to be performed under this contract. Ensure that all requirements relating to the safety of the work and protection of workers is strictly adhered to.

1.6 DOCUMENTS:

The specifications are intended to describe the extent and kind of quality of materials and workmanship which is required for this project and is not a definitive list or description of all components required for the work. All measurements are approximate, and it is the contractor's responsibility to validate.

Unless otherwise stated, obtain and install all necessary components to provide a complete job in all respects.

The contractor is to maintain at the site, one copy of pertinent documents as required for the project.

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1.7 MATERIALS and STANDARDS:

All materials as specified or required for a complete job shall be new and of an acceptable standard of quality required for use in this project.

Materials and workmanship are to meet with the requirements of standards such as CSA, CGSB, ASTM, the National Building Code as applicable to the work being performed and the materials being supplied.

1.8 EXAMINATION of SITE

It will be the responsibility of the contractor to view the site prior to submittal of price, to assess all factors related to the completion of this project. Carefully examine the entire site, to become familiar with the adjacent surroundings, existing site conditions and accessibility to the locations of work. Site visitation can be arranged with the Project Manager during normal working hours by appointment.

1.9 PROJECT CO-ORDINATION and HOURS of WORK:

Contractor to co-ordinate and schedule all work with the Project Manager or his representative to minimize disruption to the occupant of the house. The co-ordination and on-site supervision of all tradesmen will be the direct responsibility of the contractor.

Work hours may be limited to 7:30 a.m. - 5:00 p.m. Monday to Friday. Any work that is scheduled outside these hours are to be approved by the Project Manager prior to undertaking the work.

Check and verify on-site dimensions against those shown on Drawings where such dimensions affect work of following trades or installation of materials or equipment. Report any variations and obtain direction from Project Manager.

The contractor will bring material and equipment for the day. No availability of storage on site.

1.10 PARKING and SITE ACCESS:

Parking for contractor's vehicles is available on site. The contractor is to access the work area via the walkways and/or the predetermined paths from the parking area. Other access routes are to be approved and co-ordinated with Project Manager.

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1.11 LIMIT of WORK AREA:

The Contractor is to limit work activities within the immediate work area around the building and prevent any unnecessary damage to the existing building surfaces, plants, material and vegetation.

1.12 PROTECTION of the PUBLIC:

The contractor is to take all necessary precautions to protect any users of the premises from harm as a result of the work operations or other situations caused by the presence of the contractor's forces, equipment, materials, etc., on or about the site.

1.13 BUILDING, PLANTS and VEGETATION PROTECTION:

Protect all building surfaces, adjacent plants, material, landscaping and entranceways from any damage. During the removal operations, the contractor is to protect all existing surfaces and components from any damage. The ground area around the building is to be protected with tarps and/or filter cloths or other acceptable methods as approved by the Project Manager. Keep access to entrance doors at all times.

1.14 FIRE and SAFETY REQUIREMENTS:

All work to be carried out in accordance with the Canada Labour Code, Provincial Occupational Health and Safety Act and Regulations for Construction Projects and Labour Canada Fire Protection Standards.

All volatile items are to be properly stored or removed from the site to minimize the danger of fire. Contractor to maintain at the work site a working portable fire extinguisher.

Contractor must submit for approval a **site-specific Health and Safety Plan** before beginning work. Also include the emergency contact lists for EMS, Fire, Local Address, etc.

1.15 TEMPORARY SERVICES:

Temporary services such as electrical power and water will be available to the contractor at no charge. The contractor is to coordinate use of services with the Project Manager.

1.16 TEMPORARY FACILITIES:

Contractor to provide all necessary scaffolding, bracing, ladders, platforms, temporary enclosures, storage, material protection, and the like required for the execution of all work related to this

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project. Items such as temporary heat, if required, tarps, filter cloths, safety equipment, etc., will be the responsibility of the contractor.

Upon completion of the day-to-day work or should the work be delayed for any cause; the contractor shall assume responsibility for its protection during such period.

1.17 GENERAL WORKMANSHIP:

Contractor is to perform all work using skilled tradesmen and ensure that all items are properly fitted and accurately set in place, square, true and plumb. Carry out all work in a neat and accurate manner in keeping with accepted and recognized trade practices and principles.

Ensure that any sub-contractor provides properly qualified workmen, materials and equipment and co-ordinate all sub-trade work accordingly. Remove any new work that, in the opinion of the Project Manager, is of inferior quality and/or is not in compliance with the specifications or manufacturers’ published recommendations. Replace such work with new to the Project Manager’s approval, at no additional cost to the Crown.

1.18 REPAIR of EXISTING SURFACES:

Prior to final completion, should any existing surfaces or materials be damaged in any way by the work of this contract, the contractor shall be responsible to repair, refinish and/or replace such finishes and materials to the Project Manager’s approval at no additional cost to the Crown.

1.19 CLEAN-UP and WASTE DISPOSAL:

Contractor to maintain the work area in an orderly condition, daily, and undertake any special precautions to protect the work and materials from damage during the course of the contract.

Instruct all sub-trades of the necessity to clean and tidy up the premises at the conclusion of each day’s work. Remove from the site any accumulation of debris resulting from the work of this contract. Provide containers when necessary for the collection and removal of waste materials and debris.

All waste materials to be disposed of at approved dump sites. Burning or burying of debris or rubbish at the site will not be permitted. Disposal of waste or volatile materials such as paint thinner, mineral spirits, or oil shall be done of site at a certified facility.

At the conclusion of the work, remove all surplus materials, tools, equipment and debris and leave the site in neat and tidy condition to the satisfaction of the Project Manager.

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1.20 RECORDING of EXISTING CONDITIONS:

Prior to the removal of any existing materials or components, the contractor may be required to record the exact details and dimensions of the existing components to ensure that sufficient information is retained to enable the new work to be fabricated and/or installed to match the existing configuration prior to removal.

1.21 SALVAGE of EXISTING MATERIALS:

Contractor, when requested, is to salvage representative examples of any removed materials and turn over to the Project Manager for archival purposes, as requested. Any surplus examples will be returned to the contractor for disposal.

1.22 WORK OPERATIONS / SPECIAL REQUIREMENTS:

All work activities must be co-ordinated in advance with the Project Manager to ensure minimal disruption at the site.

Disruption to any building services such as electrical power, security, or other systems shall not be permitted without the expressed approval of the Project Manager.

To limit the visual impact to the site created by the work, the contractor shall keep the site in an orderly fashion and secure materials and scaffolding from public access. Do not block staff access at the site.

Carry out all operations required to do the work by such means as necessary to keep the generation of dust, noise or other disturbances to a minimum.

When unforeseen conflicts with the work activities arise, the contractor may be requested to reschedule or temporarily suspend the work activities to avoid any conflict. In this event, any disruption to the contractor's schedule shall be kept to a minimum to avoid delays in the completion of the work of this contract.

The contractor is to advise the Project Manager of any unforeseen conditions that will affect the progress, cost or quality of work on this project prior to completing the subsequent work, which may be affected.

1.23 REMOVAL of BUILDING COMPONENTS OFF-SITE:

Any of the building components that are to be removed from the site to facilitate repairs are to be properly identified prior to removal to ensure that each item is returned to its proper location.

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Contractor is to protect all components from damage during transportation to and from site and at any location where components are repaired and stored off-site.

The contractor shall notify the Project Manager prior to any removals and provide details related to removal, transportation and destination of any components.

The contractor shall provide access for the Project Manager to the off-site location, to inspect the work in progress as required during the contract.

1.24 ENVIRONMENTAL MANAGEMENT

Contractor Responsibilities:

- Do not allow waste material, rubbish, and debris to accumulate and become an unsightly or hazardous condition. Maintain site in a clean and orderly condition.
- Removal of all construction debris and waste and disposal in an approved landfill.
- Burning rubbish and construction waste materials is not permitted on site.
- The Contractor shall prevent any deleterious and objectionable materials from entering streams, rivers, wetlands, water bodies or watercourses that would result in damage to aquatic and riparian habitat.
- The Contractor and workers shall dispose of hazardous wastes in conformance with the Canadian Environmental Protection Act.

1.25 SHOP DRAWINGS and SAMPLES:

Contractor to submit to the Project Manager for review, material samples and/or product literature where requested in the specifications or on the drawings prior to installation/fabrication. Provide minimum 3 copies of shop drawings.

Approved samples will be retained by the Project Manager and used as standards to ascertain the quality of the completed installation.

Colors will be selected from manufacturer's standard range of colors unless specifically noted otherwise.

The Project Manager's review pertains to general design only and the Project Manager's review or implied acceptance does not relieve the contractor from the responsibility to ensure that all work is satisfactorily performed and completed in accordance with the plans and specifications.

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1.26 SUBSTITUTIONS:

Use no substitutions without written approval. Substitutions may be permitted, after Tenders close, only if, in the Project Manager's opinion, there is good reason and if submitted in sufficient time to permit proper investigation and approval.

1.27 PROJECT MEETINGS and INSPECTIONS:

The Project Manager will arrange project meetings on-site at times deemed necessary to review the progress of the work. The Project Manager shall co-ordinate such meetings with the contractor.

The Project Manager, or his representative, as required, will complete Day-to-day on-going inspection of the work.

The contractor is to advise the Project Manager of any unforeseen conditions that will affect the progress or quality of work on this project prior to completing the subsequent work that may be affected.

1.28 PROJECT COMPLETION:

Do not call for a final inspection of the work until all work is complete and all deficiencies, whether previously listed or not, are corrected.

A final inspection is to be completed by the Project Manager in conjunction with the contractor for final acceptance.

1.29 GUARANTEE:

Contractor is to guarantee all materials and workmanship for a period of one (1) year from the date of final acceptance.

SECTION 01600: MATERIALS AND EQUIPMENT

1.1 GENERAL:

Provide all new materials unless otherwise specified or approved by the Project Manager.

Materials specified by Manufacturer's name, trade name, etc., are intended to establish a standard of quality for use on this project.

Use products of one manufacturer where possible to ensure compatibility.

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Substitutions of specified materials will not be permitted unless approved by the Project Manager in advance. Alternative sources for products will be acceptable if product is shown to be unavailable or discontinued.

Where specified, provide extra material to that provided, for future repair work.

1.2 MANUFACTURER'S INSTRUCTIONS:

Unless otherwise specified, comply with manufacturer's latest printed instructions for installation procedures.

Provide materials with manufacturer's labels and in containers indicating description of product.

1.3 DELIVERY and STORAGE:

Deliver, store and maintain packaged material with seals and labels intact. Do not store material or equipment on the roof.

Prevent damage or alteration to any material during delivery, handling and storage. Remove any rejected material from the site.

Should materials and equipment arrive at the site before needed, provide necessary precautions to protect it.

1.4 CONSTRUCTION EQUIPMENT:

Maintain all construction equipment, tools, etc., in good working order. Ensure that all equipment meets with all safety requirements and standards.

SECTION - 01700 HEALTH and SAFETY

1.1 ACTS AND REGULATIONS:

Comply with the following acts and regulations. Where two or more acts or regulations apply conform to the most stringent.

- .1 Canadian Labour Code, Canada Occupational Health and Safety Regulations.
- .2 Province of Ontario Occupational Health and Safety Act - R.S.O. 1990, c.0.1
Regulations for Construction Projects 213/91 As Amended by Regulation 145/00
- .3 WHMIS Regulation - O. Reg. 860.

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1.2 SUBMITTALS

- .1 Submit a **Site-Specific Health and Safety Plan** within 5 days after date of Notice to Proceed and prior to commencement of the fieldwork.
Health and Safety Plan must include:
 - .1 Site-specific safety hazard assessment
 - .2 Safety and Health risk or hazard analysis for site tasks and operation.
 - .3 Direction as to how to deal with all identified risks and hazards.
- .2 The names of the personnel and the alternatives responsible for site Health and Safety, identification of hazards present on site, and use of personal protective equipment.
- .3 When requested submit names of workers and documentation of training received to deal with identified risks and hazards.
- .4 Submit copies of the reports or the directions issued by the Federal and the Provincial health and safety inspector within 24 hours.
- .5 Submit copies of any incident and accident reports.

SECTION 02100: REMOVALS

1.1 GENERAL:

Examine conditions at the site to ascertain the amount of work involved with the removals and the procedures and methods to be used. Place the scaffolding in order to minimize conflicts with the normal site operations.

Start and complete the work in order of precedence to agree with the overall requirements of the project.

All removed items, unless otherwise specified, become the property of the contractor and shall be removed from the site and properly disposed of.

Do not reuse removed materials unless otherwise permitted by the Project Manager.

1.2 PROTECTION:

During the removals, provide protective devices such as barricades, warning signs, tarps and the like for the protection of the public and the existing building. Provide tarpaulins at ground level,

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porch areas and elsewhere, as required, to prevent debris from accumulating and/or damaging the surrounding surfaces.

1.3 CROWN PROPERTY:

The contractor is to salvage representative examples of any removed materials, as requested by the Project Manager prior to disposal of all such material. These items are to be turned over to the site for archival purposes.

1.4 CLEAN-UP:

At the end of each day's work, leave work area in a safe condition. Remove debris on a regular basis and do not let debris accumulate at the site where it may present a hazard to the staff or public.

SECTION 06200: CARPENTRY

1.1 GENERAL:

Do all carpentry work in accordance with all applicable CSA Standards, and in accordance with good carpentry practice for this type of work.

2.1 PRODUCTS:

Lumber: Wood Roof Boards, 'B' Select or better, NLGA graded lumber.
Moisture content is not exceeding 19%, MC19.
The material type, size and thickness are to match previous and/or existing.

Fasteners: Spiral nails to CSA B111, hot-dipped Galvanized for all work except shingles.

Sealant: To meet appropriate CAN/CGSB Standards and to be compatible with all relevant components. The colour and the brand are to be reviewed by Project Manager.

3.1 EXECUTION:

Contractor to patch, repair and make good all surfaces and/or roof components that are damaged due to demolition of roofing.

Contractor to replace wood that is compromised by rot (roof boards, painted fascia, etc.). This extra work, if any, will be submitted to the PM prior to execution for approval.

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Where sealant is used, apply sealant to all joints using gun with proper size nozzle. Apply sealants to manufacturer's instructions and recommendations. Use sufficient pressure to fill voids and joints solid. Form surfaces of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, or embedded impurities. Provide smooth finish.

SECTION 07300: CEDAR SHINGLE ROOFING

1.1 GENERAL:

Do wood shingle work in accordance with National Building Code, Section 9.27.7 and all applicable CSA Standards and as per all Manufacturer's instructions and recommendations.

Submit sample of new wood shingles to Project Manager for review.

2.1 PRODUCTS:

- Shingles: Western Red Cedar, to applicable CSA Standards, "Certi- Last" Pressure treated, No. 1, Blue Label Grade, 450 mm in length and random in width.
- Underlayment: Synthetic (Dupont-Tivek or equivalent).
- Cedar Breather: Benjamin Obdyke (or equivalent). (roll: 61.5'x39"x 0.25")
- Nails: Stainless Steel, to all applicable CSA Standards.
1.9 mm in diameter- with min. head diameter of 5mm - 6mm (3d Box 1¼).
Length - sufficient to penetrate through roof sheathing by min 6mm.
- Flashing and valley: Galvanized Steel, to all applicable CSA Standards.
Size to suit requirements. Provide samples.
The exact sizes and details are to be verified on site with Project Manager.
- Ice and Water shield: Acceptable Products: Blueskin RF 200 Self Adhered Roof Underlay by Bakor or Vycor Ice and Water Shield Membrane by Grace (or equivalent).
- Sealant: Thermoplastic rubber-based sealant: Flextra by Mulco (or equivalent).
Color to be chosen by Project Manager.

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3.1 EXECUTION:

Completely remove all existing wood shingles, underlay and all flashing and valley to expose existing wood deck.

Examine existing wood deck for defects or voids and report conditions to Project Manager.

Sweep deck clean of dust, dirt and debris. Ensure that surface is dry and relatively flat with no obvious protrusions, such as nail heads.

Apply 1 layer of roofing underlayment, to replace previous, over exposed deck surfaces, hips and ridges, as required and as per manufacturer's instructions.

Install new self-adhered polymer modified bitumen (ice and water shield) along eaves (3 feet wide), around chimneys and over crickets, in valleys and other roof penetrations. Overlap and align membrane to manufacturer's recommendations.

Install on all surfaces cedar breather as per manufacturer recommendations.

Install new pre-painted flashing to match existing. Exact installation details to be verified on site with Project Manager.

Install new rubber vent boot "Collar" around vent.

Install new cedar shingles with **Weather Exposure of 5-1/2"**.

New cedar shingles are to have triple thickness at any given point. Shingle width not to exceed **200mm**.

Double shingles at eaves and project shingles to match existing dimensions.

Lay shingles with grain perpendicular to eaves. Space shingles from **6mm-10mm** apart. Stagger joints minimum of **40mm** in succeeding courses. Ensure that, in any 3 courses, **no joints are in alignment**.

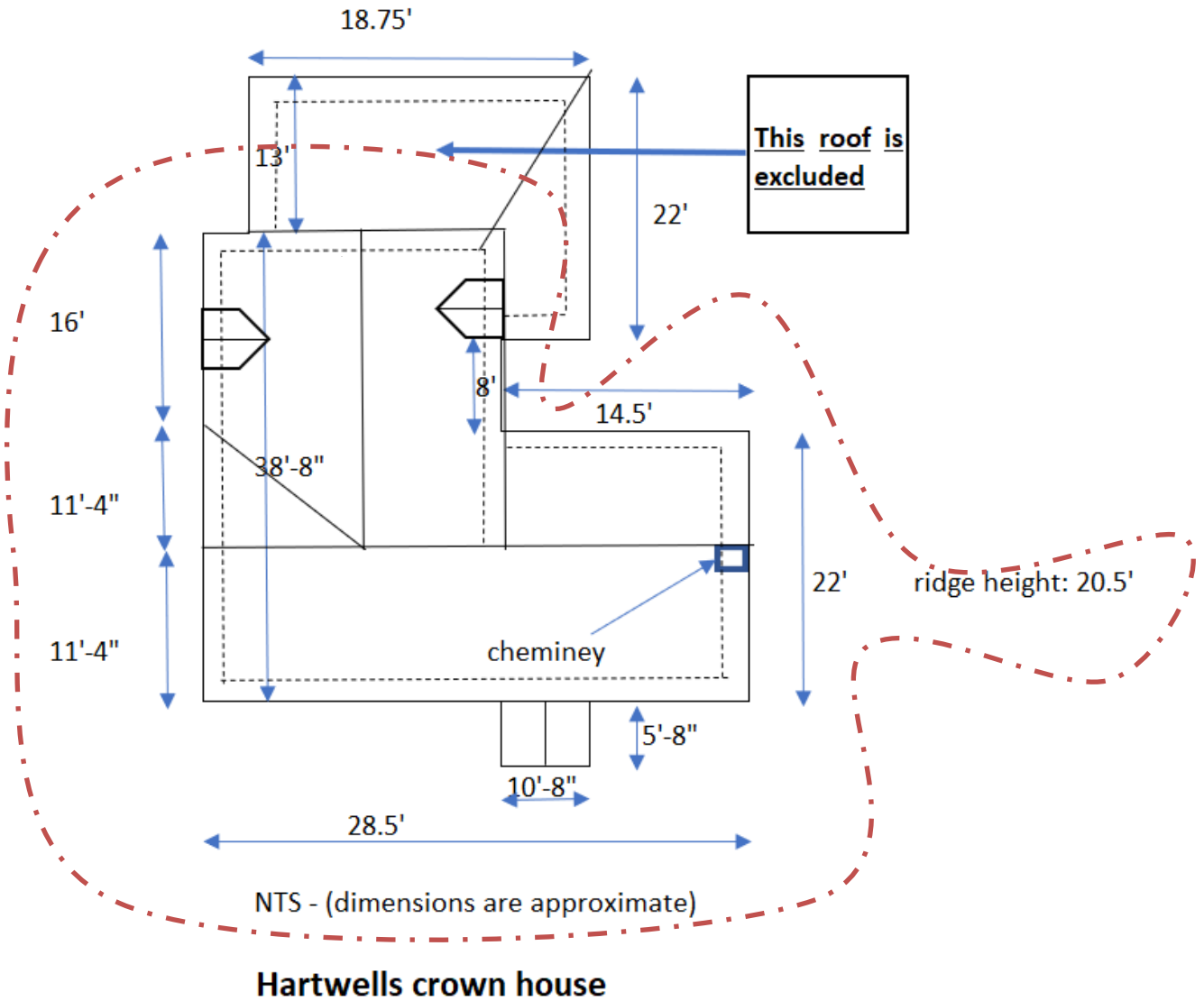
Use 2 nails per shingle. Space nails **20mm** from edge and **40mm** above butt line of following course. Drive nails flush but do not crush shingles.

Install new roof ridge & hips boards/shingles to match existing.

Upon completion of work, clean entire roof of any debris.

Contractor to inspect entire installation to ensure that all work is complete, all materials are properly secured, flashed, sealed, etc., prior to final inspection by the Project Manager.

Sketch and pictures



Remove old cedar shingles, paper, etc. and replace, as per specs, with new cedar shingles.



West elevation (1)



West elevation (2)



North elevation



East elevation



South elevation (1)



South elevation (2)

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