

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 99 – Demolition for Minor Works.
- .2 Section 04 03 42 – Historic – Replacing Stone

1.2 ADMINISTRATIVE REQUIREMENTS

- .1 Conduct a pre-dismantling meeting with Departmental Representative to verify project requirements, equipment, procedures and assigned storage areas. Comply with Section 01 31 19.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00.
- .2 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Alberta.
 - .2 Provide drawings for shoring and bracing of laterally unsupported masonry as a result of dismantling stone.
 - .3 Photographically record stonework before and after dismantling.

1.4 QUALITY ASSURANCE

- .1 Qualifications:
 - .1 Dismantlers:
 - .1 Experience: minimum 5 year record of successful historic masonry dismantling on projects of similar size and complexity as this project.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00
- .2 Salvage existing stones for stone repair materials:
 - .1 Stone units designated for replacement are to be selected and used for repair of stone units to remain and as repair materials.

1.6 SITE CONDITIONS

- .1 Ambient conditions:
 - .1 Loosen wet masonry only when temperature is above 5°C.
- .2 In temperature 5°C and below:
 - .1 Keep stones dry.
 - .2 Protect wet stones from freezing.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 EXAMINATION

- .1 Examine masonry, staging and storage areas and notify Departmental Representative in writing of conditions detrimental to acceptable and timely completion of Work.

3.2 SITE VERIFICATION OF CONDITIONS

- .1 Report in writing, to Departmental Representative areas of deteriorated stone not identified in the documents. Obtain Departmental Representative's approval and instructions for repair of stone before proceeding.
- .2 Stop work in that area and report to Departmental Representative immediately evidence of hazardous materials.

3.3 PREPARATION

- .1 Obtain Departmental Representative's approval for alternative methodology and tools to be employed before commencing the work.
- .2 Clean stone surface of dust and stone chips.

3.4 PROTECTION

- .1 Prevent damage to building which is to remain. Make good damage incurred.
- .2 Protect surrounding components from damage during work.
- .3 Make good damage to historic fabric.
- .4 Obtain Departmental Representative's approval for repair methodology.

3.5 SPECIAL TECHNIQUES

- .1 Mark stone, on face, before removal using marking product which can be completely erased when required without damaging masonry unit:
 - .1 Ball-point pen on diachylon, attached to stone.
 - .1 Waxless chalk directly on stone.
 - .2 Tracking relocated stones and other masonry units:
 - .1 Use numbering, marking, and positioning system to approval of Departmental Representative.
 - .3 Mark/Identify:

- .1 Stones and other elements or components to show identity and position.
- .2 Wood platforms or other equipment used to transport and store stones.
- .3 Work and storage areas.
- .4 Location from which stones are removed on drawings, photographs and chart or card-index.
- .4 Stone location recording system.
 - .1 Prepare chart or card index to:
 - .1 Help locate stones or units when necessary.
 - .2 To manage availability of platforms.
 - .3 To manage work and storage areas.
 - .2 Keep chart or card index up-to-date and, if required, produce copy every day.
 - .3 Prepare chart or card index to contain relevant information system to approval of Departmental Representative.
- .5 Ensure that temporary marking will remain in use resistant to weather, handling and cleaning until final marking of stones.
- .6 Remove markings and adhesive without damaging units:
 - .1 Brush with vegetable fibre brush: either dry or with water.
 - .2 Use no solvent, acid or other chemical product

3.6 SALVAGE AND REUSE

- .1 Removed stones intended to be replaced must be salvaged and catalogued. They may be used for repairs if each individual unit meets the following criteria:
 - .1 Sound.
 - .2 Free of salts.

3.7 METHOD FOR LOOSENING STONES

- .1 Use approved methods to loosen stones which will cause no damage either to stones or to other architectural elements.
- .2 Use hand tools only.
- .3 Obtain Departmental Representative's approval for use of power tools before commencing work.

3.8 DISMANTLING AND MOVING STONES

- .1 Avoid damaging arises of stone when removing mortar and freeing up.
- .2 Remove excess mortar using hand tools.
- .3 Use wood wedges where required to remove or dislocate stone.
 - .1 Use flat pry bars protected with impact absorbing protection (burlap, cardboard).
- .4 Use nylon hoisting belts. Use minimum 2 belts per stone.

- .5 Protect stone from damage when hoisting and lifting from position.
 - .1 Use wood shims to isolate units from hoisting belts.
- .6 Where damage occurs to stone, report to Departmental Representative.
- .7 Make good damage incurred at no additional cost to Contract.
- .8 Obtain review and approval of repaired damage by Departmental Representative.

3.9 HANDLING

- .1 Usage of Lewis bolts for handling stone is permitted.
- .2 Place detached stones on wood surfaces during handling. Prevent contact with metal.
- .3 When stones are lowered to ground, place directly on wooden platform used for transport or storage.
- .4 Transport and keep stones on wooden platforms.
- .5 Ensure that sharp edges of stones do not come into contact with hard objects.

3.10 TEMPORARY STORAGE STAGING AREA

- .1 Place stones in designated area of site for detailed inspection and for final marking, before storage.
- .2 Make stones accessible and retrievable when required.
- .3 If sufficient area is not available on site based on area shown on Drawings, arrange and pay for off-site storage of dismantled stone, including all transportation costs associated with moving stone to storage facility and delivery back to site for reinstallation.
 - .1 Ensure sufficient and appropriate protection and packaging of stone to prevent damage to stone during transportation and storage.

END OF SECTION