



**METRO NORTH
ORAL HEARING**

**O 'Connell Monument Draft Method Statement
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**Method Statement for Works to the
O'Connell Monument during the Heritage Works Contract**

1. Introduction

This Method Statement sets out the Works Requirements to the O'Connell Monument during the Heritage Works Contract. The Contractor shall provide a detailed Method Statement for each individual Phase of the Works.

The Works have been divided into three main Phases as follows:

PHASE 1 Removal of Monument and Transport.

- A. Preliminary Inspection.
- B. Detailed Method Statement.
- C. Detailed Inspections.
- D. Records of Stonework and Bronzework.
- E. Work Site Requirements.
- F. Removal of Bronze Items
- G. Transport of Bronze Items
- H. Removal of Stonework.
- I. Transport of Stonework
- J. Removal of Substructure and Ceremonial Foundation Stone.
- K. Temporary Reinstatement of Surfaces Following Removal of Monument.

PHASE 2 Temporary Relocation for Display and Storage.

- A. Detailed Method Statement.
- B. Work Site Requirements Collins Barracks.
- C. Re-erection of Monument Items for Temporary Display at Collins Barracks.
- D. Cleaning & Conservation of Monument Items on Temporary Display.
- E. Ongoing Maintenance Requirements over the full Phase 2 Works Period.
- F. Unpacking, Laying out and Storage of Items at Heritage Works Contractors Storage Facility.

PHASE 3 Removal/Transport from Temporary Display/Storage and Final Reinstatement.

- A. Detailed Method Statement
- B. Work Site Requirements at Collins Barracks
- C. Removal of Items on Temporary Display Area in Collins Barracks.
- D. Removal of Bronze Figure and Features
- E. Transport of Bronze Figures and Features
- F. Transport from Contractor Storage Facility
- G. Work Site Requirements at O'Connell Street
- H. Final Reinstatement of the O'Connell Monument.
- I. Cleaning Down and Completion.

2. Recent Conservation

The O'Connell Monument underwent remedial and conservation works in 2005, these Works were undertaken by DCC, and included conservation works to the bronzes and the cleaning and repointing of the stonework. (See DCC publication 'From O'Connell to Parnell 2006' in Background Information for details).

3. Description of the Monuments

The Ceremonial Foundation Stone for the O'Connell Monument was laid in 1864, the stone weighs approximately 2 tonnes. The sculptor John Henry Foley was commissioned in 1866, Foley died in 1874 and his pupil Thomas Brock completed the Monument which was finally unveiled in 1882.

The large bronze figure of O'Connell commands a cylindrical limestone pedestal encircled below by a bronze frieze depicting the people of Ireland with the "Maid of Erin" the most prominent figure. A further drum of limestone below sits on a square base and the four projecting corners feature four winged victories. The Monument stands twelve meters high. (See O'Connell Monument Survey Drawing D2.1.1)

4. General Matters

Full records shall be handed to the Employer's Representative within 5 days of completion of each activity.

4.1 PHASE 1 **REMOVAL OF MONUMENT AND TRANSPORT**

A Preliminary Inspection

All items of the Monument shall be carefully inspected and assessed prior to the commencement of any physical Works to determine the precise methods of assembly. This preliminary inspection will assist the Contractor in preparing his Detailed Method Statement for Phase One of the Works.

B Detailed Method Statement

The Contractor shall be required to produce a detailed Method Statement which covers all aspects of the Works required for Phase One. The detailed Method Statement shall be fundamentally based upon the RPA's Conservation Architects Method Statement but shall be further developed and enhanced by the Heritage Works Contractor and fully consistent with the Heritage Works Requirements.

The Contractor shall be required to submit the detailed Method Statement to the Employer's Representative for approval ten days in advance of any physical Works commencing on the Monument. The Employer's Representative will respond with any necessary amendments within five working days.

It shall be necessary for the Contractor to further adjust, amend and revise the detailed Method Statement as the Works progress to take account of the Monuments needs.

Any necessary amendments to the detailed Method Statement that may arise during the execution of the Works shall require the Employers Representatives pre-approval.

C. Detailed Inspections

Before commencement of any physical Works on the Monument and subsequent to the Employers Representative approval of the Contractors detailed Method Statement, the Contractor shall carry out a detailed inspection of the Monument to confirm the accuracy and effectiveness of his approved detailed Method Statement.

The Contractor is required to undertake detailed inspections on a continual basis during the Phase One Works to capture any alterations that may be required from the approved Method Statement for Phase One of the Works.

D. Records of Stonework and Bronzework

All items shall be fully recorded by photograph and all existing damage to the items noted and submitted in report format to the Employer's Representative, five days in advance of physical Works commencing on the Monument. The Contractor will be held responsible for any damage not noted in this Report but later notified to the Employer's Representative.

The precise location of items of stonework shall be recorded as per drawings supplied by RPA (O'Connell Monument Survey Drawings D2.1.1) and coded so each item or dismantled part of each item can be precisely located. The Contractor will be required to produce further drawings recording the precise location of internal stonework as Works to remove the Monument progress. The drawings will be in the same format as RPA drawings and shall be submitted to the Employer's Representative three days in advance of the regular fortnightly Site meetings.

The code shall be marked on each item or dismantled item by such means as cannot be accidentally removed but can be easily removed without blemish upon completion of the repairs at a later stage. The Contractor is required to maintain these markings for the duration of the entire Works. Similarly, each individual disassembled part of stonework shall be coded so that its relationship to adjoining parts can be precisely identified and recorded on drawings, photographs or other approved means.

All records shall be handed to the Employer's Representative upon completion of Phase One of the Works. These records shall comply in full with the reporting requirements as outlined in Section 6 of the Works Requirements.

E. Work Site Requirements

The Contractor shall put in place all site establishment requirements and management measures as specified in the Works Requirements.

F. Removal of Bronze Items

The Contractor shall assess the structural integrity of all bronze items of the Monument by employing ultrasonic's in advance of any Works to the Monument. These results will be presented to the Employer's Representative 5 days in advance of works commencing.

The Contractor shall provide full protection to all bronze features from accidental impact and damage. This will require the careful application of flexible layers of foam based material to all surfaces and in particular to projecting items in advance of any physical Works commencing.

The craning of the bronze statuary will require extreme levels of care in providing adequate levels of protection to the figures prior to removal and in the location of canvas lifting straps, in order to preclude any damage occurring to bronze items. The Contractors detailed Method Statement shall be required to provide an in-depth methodology for the protection and lifting of the bronze items.

The fixings of all bronze statuary and detail shall be fully determined and released prior to removal of statuary and plaques. All fixings shall be salvaged and labelled.

Wedge up the joints between the bronze bases of O'Connell and the four Winged Victories and the stonework and all other decorative detail until the joints are free. Secure the figures of O'Connell and the four Winged Victories with canvas slings as necessary ensuring that the location of the slings do not impact on any projecting elements. Connect slings to lifting crane and ensure prior to craning that the statues are fully secure and balanced for lifting vertically. Transfer Bronze figures to appropriate transporter for delivery to Collins Barracks.

Provide full protection from accidental impact to the frieze depicting the Maid of Erin by the careful application of flexible layers of foam based material to all surfaces and in particular to projecting items. Open joints in stonework in the cylindrical pedestal above the frieze. Wedge up the courses of stonework and carefully remove by hand or canvas sling. Carefully remove all stonework in the pedestal down to the top of the bronze frieze. The makeup of the core content behind the frieze and supporting the pedestal is not known. Subsequent to the removal of the pedestal this area shall be accessible for inspection. Wedge up the bronze frieze section from the stone base. Ensure the bronze drum can be lifted clear of the inner core and that no cramps or fixings exist. Insert canvas slings carefully and remove the bronze frieze for transportation to Collins Barracks. The core structure of the frieze can now be fully inspected. The Contractor will allow for either the careful salvage for reuse of the core or its careful removal, subject to approval of the Employer's Representative.

G Transport of Bronze Items

When an item of bronze has been disassembled and removed it shall be carefully inspected for damage and any additional damage not previously recorded shall be recorded and reported to the Employer's Representative. The items or parts of an item shall be checked to ensure the coding has been correctly applied and recorded and carefully packed as necessary to obviate any damage during transport. The packed items shall be loaded onto a suitable enclosed vehicle and transported to Collins Barracks or the Heritage Contractors Storage Facility as appropriate. Individual items shall be separated vertically and horizontally to ensure no damage results to bronze items from contact with adjoining surfaces. The packing in the vehicle shall be undertaken in such a manner to ensure that no items fall, rub against adjoining items or the sides of the vehicle or move during transport. Suitable restraints shall be provided during transport. The items shall be transported as suitable loads are available and not stored on site and removed in a single operation when the Works of removal and / or disassembly has been completed.

The Contractor shall be required to remove by crane all bronze figures at such a time as to minimise disruption to traffic and pedestrian flow. The Contractor shall supply suitable crane and flatbed vehicle and to remove the larger bronze figures at night time. It shall be the responsibility of the Contractor, through the Employer's Representative, to apply for and secure appropriate licences from DCC and any other relevant authority for any and all traffic and pedestrian measures to allow the Works to be carried out. (Please refer to RPA Traffic Management requirements).

H Removal of Stonework

In general, all pointing joints in stonework shall be carefully opened and existing pointing removed. The raking out shall be carried out by manual means using chisels, hacksaw blades or other appropriate instruments. Mechanical systems, hand saws or hand discs for raking out shall not be used except with the prior approval of the Employer's Representative. If the Contractor desires to use such methods he shall be required to demonstrate the effectiveness of the methodology to the Employer's Representative. However, the Employer's Representative retains the right to instruct that the raking out shall be undertaken by manual means.

Dowels or other fixings shall be carefully removed without damage. The Contractor shall check for the existence of lead beds or skids and note their location. All such original fixings shall be carefully retained, placed in a suitable container and coded and taped to the item from which they were removed in such a manner that the original fixings can be re-used in their original locations (if condition permits) during later reinstatement - all such fixings shall be retained regardless of condition.

Separating joints between individual stones shall be undertaken by gently and carefully prising apart using timber wedges where necessary. Before attempting to undo a joint, the Contractor shall carefully check all faces of the joint to ensure that all joints in stonework have been carefully inspected on an individual case basis to determine if such procedures are appropriate. The timber wedges should be driven into the stone bed gradually along the length of the bedding joint at regular centres between 200mm and 300mm. Where individual stones are exposed on more than one face they should be wedged up on all sides. When the stone has been wedged free timber spacing battens (60mm x 30mm) should be inserted at regular intervals to support the stone and to allow for the insertion of canvas straps for lifting.

The construction of the core of the monument is unknown. Following the removal of the facing stone the form of construction of the core shall be assessed to determine whether this material shall be salvaged or replaced subject to the approval of the Employer's Representative. The Contractor shall allow for either scenario. The core material should be removed following inspection down to existing ground level.

Individual stones depending on their size shall be lifted clear by crane following the removal of all pointing and bedding material on carefully positioned canvas slings to fully support each stone adequately and to ensure that no damage occurs to the arises of the ashlar. This may require the insertion of timber spacers between the stones and the canvas slings. Stones shall be carefully placed on wooden pallets in such a manner as to avoid any risk of damage; and does not allow for stacking items of cut stone The Contractor shall include a methodology for palleting of stone as part of the detailed Method Statement, which shall be subject to agreement of the Employer's Representative. The Contractor shall be required to remove original bedding mortar samples from a selected number of locations (six maximum) for petrographic analysis at an **spec required???** appropriate laboratory in order to determine the contents and ratios of the original mixes for matching purposes in the reconstruction.

I. Transport of Stonework

When an item of stonework has been disassembled and removed it shall be carefully inspected for damage and any additional damage not previously recorded shall be recorded and reported to the Employer's Representative. The items or parts of an item shall be checked to ensure the coding has been correctly applied and recorded and carefully packed as necessary to obviate any damage during transport. The packed items shall be loaded onto a suitable enclosed vehicle and transported to the Heritage Contractors Storage Facility. Individual stones shall be separated vertically and horizontally to ensure no damage results to stonework or arises from contact with adjoining stones. The packing in the vehicle shall be undertaken in such a manner to ensure that no items fall, rub against adjoining items or the sides of the vehicle or move during transport. Suitable restraints shall be provided during transport. The items shall be transported as suitable loads are available and not stored on site and removed in a single operation when the Works of removal and / or disassembly has been completed.

J. Removal of Substructure and Ceremonial Foundation Stone

Parts of the Works includes for excavation below ground level in order to remove the existing foundations of the Monument and in order to expose and remove the Ceremonial Foundation Stone. This stone has been recorded historically as weighing approximately two tons. These excavations shall be overseen by the Contractor's archaeologist and in compliance with the Archaeological Section 14 of the Works Requirements. The Ceremonial Foundation Stone shall be carefully removed for transportation and display at Collins Barracks. The Foundation Stone shall be lifted clear by crane following the removal of all bedding material on carefully positioned canvas slings to fully support it adequately and to ensure that no damage occurs. This may require the insertion of timber spacers between the Stone and the canvas slings. The Stone shall be carefully placed on a wooden pallet in such a manner as to avoid any risk of damage. The Stone shall be transported to Collins Barracks in the same manner of other stonework as detailed in Section I above.

K. Temporary Reinstatement of Surfaces Following Removal of Monument

The Contractor shall be required to fill in the excavations following the removal of the Monument and to reinstate the surface areas formerly occupied by the Monument. The surface finishes shall match the existing paving finishes on the Median of Lower O'Connell Street.

The Contractor shall reuse paving removed from the median as part of the construction of the new sub-station on O'Connell Street by RPA Utility Contractor. The RPA Utility Contractor shall supply stone paving material to the Heritage Works Contractor to allow surface finishing Works to be executed. The surface finishing Works shall be carried out using the The O'Connell Street Paving Design Specification contained in D2.5.1.

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4.2 PHASE 2 TEMPORARY RELOCATION FOR DISPLAY AND STORAGE

A. Detailed Method Statement

The Contractor shall be required to produce a detailed Method Statement which covers all aspects of the Works required for Phase Two. The detailed Method Statement shall be fundamentally based upon the RPA's Conservation Architects Method Statement but shall be further developed and enhanced by the Heritage Works Contractor in light of the Works completed and the detailed Method Statement developed in Phase 1 of the Works. The detailed Method Statement for Phase 2 shall be fully consistent with the Heritage Works Requirements.

The Contractor shall be required to submit the detailed Method Statement for Phase 2 to the Employer's Representative for approval ten days in advance of any physical Works commencing in Phase 2. The Employer's Representative will respond with any necessary amendments within five working days. It shall be necessary for the Contractor to further adjust, amend and revise the detailed Method Statement as the Works progress to take account of the Monuments needs as Works progress.

Any necessary amendments to the detailed Method Statement that arise during the execution of the Works shall require the Employers Representatives pre-approval.

B. Work Site Requirements Collins Barracks

The Contractor shall put in place all site establishment requirements and management measures as specified in the Works Requirements.

C. Re-erection of Monument Items for Temporary Display at Collins Barracks

The four Bronze Winged Victories, the Bronze Frieze, the Statue of O'Connell and the Ceremonial Foundation Stone shall all be delivered for temporary display at Collins Barracks. The Contractor shall be required to provide temporary bases for these seven separate elements within Clarke Square in accordance with the specification and drawings provided by Barrett Mahony Structural Consultants. (Ref D2.2.2. & D3.2.1)

The bronze items will be carefully craned into position from the transporter vehicle directly onto the temporary bases. All necessary care shall be taken by the Contractor to avoid any damage to the bronze items during this procedure. The process of craning the bronze items shall follow the same specification as outlined in 4.1 Phase 1 H above.

D. Cleaning & Conservation of Monument Items on Temporary Display

The bronze items will require evaluation and assessment following their careful positioning and fixing on the temporary bases. Methodologies for necessary treatment options shall include cleaning, touching up and re-colouring the bronze to make it more visually readable. Methods shall be based on the Cleaning and Conservation specification (Ref D3.1.15) and shall be included in his detailed Method Statement

Re-colouring of the bronze elements incorporates using the traditional encaustic process. Two coatings are applied using a 30/70 mix of carnauba and micro-crystalline wax, pigmented to a dark green that blends with the colour of the bronze patina that remains. The newly sealed surface which is then coated by a pigmented resin (professional artists oil paint mixed with filler wax) to unify the colouration of the surface. A final coat of micro-crystalline wax should be applied over this pigmented layer to fully seal it in and provide maximum protection.

E. Ongoing Maintenance Requirements over the entire Phase 2 Works

The Contractor shall be required to carry out all ongoing necessary maintenance to the bronzes including the completion of three inspections each year and reports on their condition during temporary display at Collins Barracks. Maintenance shall include removal of dirt build-up and the careful removal of any graffiti or other stains, in accordance with methods outlined in the aforementioned Cleaning & Conservation specification ref D3.1.15 and subject to agreement with the Employer's Representative. The Contractor shall submit remedial maintenance proposals to the Employer's Representative ten days in advance of any remedial maintenance Works for approval. The Employer's Representative shall approve or amend this Method Statement within 5 days of receipt of same.

Following completion of remedial maintenance Works the Contractor shall submit updated Reports on the condition of the display elements outlining any remedial Works undertaken and any issues arising. This Report shall be submitted by the Contractor within 15 working days following Works completion to the Employer's Representative.

F. Unpacking, Laying out and Storage of Items at the Heritage Contractors Storage Facility

The Contractor shall be required to adhere to all conditions as outlined in D.3.4 (Heritage Works Contractor Storage Facility Specification) of the Heritage Works Requirements with regard to the storage of Monument items in the Heritage Contractors Storage Facility. This shall include the opportunity for the Employer's Representative to inspect the Heritage Contractor Storage facility at any time during the Phase 2 Works.

Upon arrival at the Heritage Contractors storage facility, each item or part of an item shall be carefully unpacked and checked for damage - any damage shall be recorded and reported to the Employer's Representative.

The items shall be laid out in such a manner agreed with the Employer's Representative to permit easy access and inspection of all items individually.

The Heritage Contractor shall submit an annual report to the Employer's Representative detailing ongoing storage issues and conditions as per D.3.4 specification of the Heritage Works Requirements.

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4.3 PHASE 3 REMOVAL/TRANSPORT FROM TEMPORARY DISPLAY /STORAGE AND FINAL REINSTATEMENT

A. Detailed Method Statement

The Contractor shall be required to produce a detailed Method Statement which covers all aspects of the Works required for Phase Three. The detailed Method Statement shall be fundamentally based upon the RPA's Conservation Architects Method Statement but shall be further developed and enhanced by the Heritage Works Contractor in light of the Works completed and the detailed Method Statement developed in Phase One & Two of the Works. The detailed Method Statement for Phase 3 shall and in any case shall be consistent with the Heritage Works Requirements.

The Contractor shall be required to submit the detailed Method Statement for Phase 3 to the Employer's Representative for approval 10 days in advance of any physical Works commencing on the Monument. The Employer's Representative will respond with any necessary amendments within five working days of receipt of same.

It shall be necessary for the Contractor to further adjust, amend and revise the detailed Method Statement as the Works progress to take account of the Monuments needs as the Works progress. Any necessary alterations to the detailed Method Statement that may arise during the execution of the Works shall require the Employers Representatives pre-approval.

As per the reporting requirement outlined in Section 6 of the Works Requirements, the Contractor shall submit the revised method statement to the Employer's Representative three days in advance of the scheduled fortnightly meetings, for review and agreement.

B. Work Site Requirements at Collins Barracks

The Contractor shall put in place all site establishment requirements and management measures as specified in the Works Requirements.

C. Removal of Items on Temporary Display Area in Collins Barracks

The bronzes and Ceremonial Foundation Stone shall be carefully removed from their temporary display locations in Collins Barracks for reinstatement on O'Connell Street. The procedures followed in the original transfer of the statues and their temporary erection in Phase 2 shall generally be repeated in reverse. The Contractor shall be required to remove and dispose of the temporary foundations/bases and to make good the ground in the area where the temporary display took place.

The Works to disassemble and / or remove the items of stonework and bronzework shall be executed in compliance with the detail Method Statement agreed with the Employer's Representative.

D. Removal of Bronze Figures and Features

The Contractor shall provide full protection to all bronze features from accidental impact and damage. This shall require the careful application of flexible layers of foam based material to all surfaces and in particular to projecting items in advance of Works commencing.

The craning of the bronze statuary shall require extreme levels of care in providing adequate levels of protection in order to preclude any damage occurring to bronze items prior to removal and in the location of canvas lifting straps. The Contractors Method Statement shall be required to provide a detailed methodology for the protection and lifting. The fixings of all bronze statuary shall be released prior to removal of statuary.

Wedge up the joints between the bronze bases of O'Connell and the four Winged Victories and the temporary bases until the joints are free. Secure the figures of O'Connell and the four Winged Victories with canvas slings as necessary ensuring that the location of the slings do not impact on any projecting elements. Connect slings to lifting crane and ensure prior to craning that the statues are fully secure and balanced for lifting vertically. Transfer Bronze figures to appropriate transporter for delivery back to O'Connell Street.

Provide full protection from accidental impact to the frieze depicting the Maid of Erin by the careful application of flexible layers of foam based material to all surfaces and in particular to projecting items. Wedge up the bronze frieze section from temporary base. Insert canvas slings carefully and remove the bronze frieze for transportation to O'Connell Street.

E. Transport of Bronze Figures and Features

When an item of bronze has been disassembled and removed it shall be carefully inspected for damage and any additional damage not previously recorded shall be recorded and reported to the Employer's Representative. The items or parts of an item shall be checked to ensure the coding has been correctly applied and recorded and carefully packed as necessary to obviate any damage during transport. The packed items shall be loaded onto a suitable enclosed vehicle and transported to O'Connell Street. Individual items shall be separated vertically and horizontally to ensure no damage results to bronze items from contact with adjoining surfaces. The packing in the vehicle shall be undertaken in such a manner to ensure that no items fall, rub against adjoining items or the sides of the vehicle or move during transport. Suitable restraints shall be provided during transport. The items shall be transported as suitable loads are available and not stored on site and removed in a single operation when the Works of removal and / or disassembly has been completed.

The Contractor shall reinstate in O'Connell Street by crane all bronze figures at such a time as to minimise disruption to traffic and pedestrian flow. The Contractor shall supply suitable crane and flatbed vehicle and to reinstate the larger bronze figures at night

time. It shall be the responsibility of the Contractor, through the Employer's Representative, to apply for and secure appropriate licences from DCC and any other relevant authority for any and all traffic and pedestrian measures to allow the Works to be carried out. (Please refer to RPA Traffic Management requirements).

F. Transport of Stonework from Contractor Storage Facility

The packed items of Stonework shall be loaded onto a suitable enclosed vehicle and transported from the Contractor storage facility to O'Connell Street. Individual stones shall be separated vertically and horizontally to ensure no damage results to stonework or arises from contact with adjoining stones. The packing in the vehicle shall be undertaken in such a manner to ensure that no items fall, rub against adjoining items or the sides of the vehicle or move during transport. Suitable restraints shall be provided during transport. Appropriate items should be transported as required to enable the reinstatement of the Monument from the base upwards. When an item of stonework has been delivered to the Works Site it shall be carefully inspected for damage and any additional damage not previously recorded shall be recorded and reported to the Employer's Representative. The items or parts of an item shall be checked to ensure the coding has been correctly applied and that the correct items are reinstated in the precise locations to facilitate complete and accurate reinstatement.

G. Work Site Requirements at O'Connell Street

The Contractor shall put in place all site establishment requirements and management measures as specified in the Works Requirements.

H. Final Reinstatement of the O'Connell Monument

The procedures for reconstruction shall generally follow the reverse order of the demounting procedures, and in any case shall comply with the revised method statement for Phase 3 as informed by the final Method Statements from Phase 1 & 2. The Contractor shall be required to provide a new foundation constructed in the original Monument location strictly in accordance with the structural details provided by Barrett Mahony Structural Consultants (Ref D2.2.2 & D3.2.1).

All corroded ferrous metal, fixings, cramps etc. shall be removed and replaced by matching bronze cramps and fixings. If, for structural reasons, it is not possible to remove all of such metal, then it shall be cut back as far as possible, grit blasted to remove all visible rust, primed with red lead or a zinc-rich primer and painted with two coats of Bituminous paint. The Contractor shall allow for 100% replacement of original cramps and fixings.

Mortar for bedding and pointing. (Please refer to separate document '*Specification for Raking Out, Rebedding and Repointing Stonework Bases and Plinths*' for details)

The properties of the original mixes as determined by petrographic analysis shall be replicated by the new mixes. Any deviation from the original mixes shall be approved by the Employer's Representative.

The core of the monument shall be reconstructed in either salvaged material or in new brick as per D3.1.15 specification. These Works shall be fully specified following the inspections during the removal of the monument. The stone steps etc; shall be reinstated in their original location.

The base of the monument shall be reconstructed ensuring that bed heights and coursing match the original and that all stones are relocated to their original position. Bedding mortar for reconstruction shall be as per specification (2.25 sand : 0.25 crushed limestone : / natural hydraulic lime (NHL) 3.5). The joints shall be raked back to allow for separate pointing up of all the stonework following the completion of the reconstruction of the monument. The stonework shall be reconstructed to the main cylinder in its original location.

Following full reinstatement of stonework of the Monument the Contractor shall be required to reinstate by crane all bronze figures at such a time as to minimise disruption to traffic and pedestrian flow. The Contractor shall supply a suitable crane and flatbed vehicle and to reinstate the larger bronze figures at night time. It shall be the responsibility of the Contractor, through the Employer's Representative, to apply for and secure appropriate licences from DCC and any other relevant authority for any and all traffic and pedestrian measures to allow the Works to be carried out. (Please refer to RPA Traffic Management requirements).

The bronze frieze and the wave detail shall be reinstated carefully by crane and fully protected both during and following reinstatement. The cylindrical pedestal capping the frieze shall be reconstructed following the same procedures and methodologies, as above.

All stonework shall be repointed as per as per specification D3.1.15. This shall include for the taping of all joints prior to repointing in order to minimise on spillage and runoff of mortar.

The Contractor shall provide full protection to all bronze features from accidental impact and damage. This will require the careful application of flexible layers of foam based material to all surfaces and in particular to projecting items in advance of any physical Works commencing.

The craning of the bronze statuary will require extreme levels of care in providing adequate levels of protection to the figures prior to removal and in the location of canvas lifting straps, in order to preclude any damage occurring to bronze items. The Contractors detailed Method Statement shall be required to provide an in-depth methodology for the protection and lifting of the bronze items.

Secure the figures of O'Connell and the four Winged Victories with canvas slings as necessary ensuring that the location of the slings do not impact on any projecting elements. Connect slings to lifting crane and ensure prior to craning that the statues are

fully secure and balanced for lifting vertically. Transfer Bronze figures to original locations and reaffix in reverse of method used in Phase 1 of Works.

I. Cleaning Down and Completion

All stonework in shall be cleaned down using water (steam where necessary) as per specifications. In the event of heavy staining the Contractor shall be required to clean the stonework using a medium grade glass powder at 20 psi. This method was found to be more effective than using the fine grade powder at a higher pressure. A degreasant may be applied to food and drink stains around the base. All methods to be approved by the Employer's Representative. (As per D3.1.15 Specification)

The bronze figures and features shall be cleaned and rewaxed as per the Cleaning and Conservation Specification. All methods to be approved by the Employer's Representative.

On completion of Phase 3 of the Works the Contractor shall supply full and complete records to the Employer's Representative in line with Reporting requirements as outlined in the Works Requirements Section 6.

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5. ENVISAGED WORK SEQUENCE FOR WORKS TO THE O' CONNELL MONUMENT DURING THE HERITAGE WORKS CONTRACT

The Contractor is required to execute the Works to the O'Connell Monument in compliance with the Heritage Works Requirement and this Method Statement, or in accordance with the Contractor's detailed Method Statement as agreed in advance with the Employer's Representative. The sequence of Works shall be undertaken as presented here, unless the Contractor presents an alternative sequence, which shall be incorporated into the detailed Method Statement and agreed with the Employer's Representative in advance.

5.1 PHASE 1 REMOVAL OF MONUMENT AND TRANSPORT

1. Stone steps surrounding monument to be recorded and moved to allow work space increase.
2. Provide full protection from accidental impact by the application of foam based material, to the bronze statue of O' Connell and the four Winged Victories.
3. Wedge up the joints between the bronze bases of O'Connell and the four Winged Victories and the stonework and all other decorative detail until the joints are free.
4. Secure the figures of O'Connell and the four Winged Victories with canvas slings as necessary ensuring that the location of the slings do not impact on any projecting elements.
5. Connect slings to lifting crane and ensure prior to craning that the statues are fully secure and balanced for lifting vertically.
6. Transfer Bronze figures to appropriate transporter for delivery to Collins Barracks.
7. Provide full protection from accidental impact to the frieze depicting the Maid of Erin by the careful application of flexible layers of foam based material to all surfaces and in particular to projecting items.
8. Open joints in stonework in the cylindrical pedestal above the frieze.
9. Wedge up the courses of stonework and carefully remove by hand or canvas sling. Carefully remove all stonework in the pedestal down to the top of the bronze frieze.
10. The makeup of the core content behind the frieze and supporting the pedestal is not known. Subsequent to the removal of the pedestal this area shall be accessible for inspection.
11. Wedge up the bronze frieze section from the stone base. Ensure the bronze drum can be lifted clear of the inner core and that no cramps or fixings exist.

12. Insert canvas slings carefully and remove the bronze frieze for transportation to Collins Barracks.
13. The core structure of the frieze can now be fully evaluated. Depending on the material and its significance the core shall either be carefully salvaged for later reuse or carefully removed for disposal. Options to be agreed with the Employer's Representative.
14. The four Provincial Shields shall be fully protected in situ.
15. The "Wave" band of bronze below the frieze should be carefully wedged up for removal to storage following packaging and protection.
16. All joints in the stonework in the base of the monument should be carefully raked out. Prior to the removal of the stonework from the base each stone should be numbered on bed to correspond to numbering system on the drawings provided.
17. The stonework shall be carefully taken down stone by stone and offloaded on to timber pallets for removal to the Heritage Works Contractor Storage Facility.
18. The construction of the core of the monument is unknown.. Following the removal of the facing stone the form of construction of the core shall be assessed to determine whether this material shall be salvaged or replaced.
19. The core material should be removed following inspection down to existing ground level.
20. The foundations to the Monument shall be removed under archaeological supervision and in accordance with archaeological requirements.
21. The ceremonial foundation stone shall be carefully, removed using canvas slings and suitably packed for transportation.
22. The excavated area shall be backfilled and resurfaced to match the existing paving finishes on the Median of Lower O'Connell Street.

5.2 PHASE 2 TEMPORARY RELOCATION FOR DISPLAY AND STORAGE

1. Construct and install temporary bases for the bronze figures and ceremonial foundation stone in Collins Barracks as per specification (D2.2.2 & D3.2.1).
2. Re-erect statue in Collins Barracks on temporary bases.
3. Undertake cleaning and conservation works to bronze features and ceremonial foundation stone as per detailed specification (D3.1.15).
4. Transport and carefully unload stonework and other monument items at the Contractor storage facility. Carefully unpack and check for damage - any damage to be recorded and reported to the Employer's Representative.

The items shall be laid out in such a manner to permit easy access and inspection of all items individually by the Contractor and Employer's Representative.

All items should be stored as per the Storage Requirements (Ref to be included)

5. The Contractor shall be required to carry out ongoing maintenance to the bronzes items on temporary display including the completion of annual inspections and reports to be submitted to the Employers Representative on their condition and on items in storage.

5.3 PHASE 3 REMOVAL/TRANSPORT FROM TEMPORARY DISPLAY/STORAGE AND FINAL REINSTATEMENT

The Reconstruction of the O'Connell Monument

1. Following temporary display bronze items and ceremonial foundation stone shall be removed from their locations in Collins Barracks for reinstatement in O'Connell Street. The procedures followed in the original transfer of the bronze items and their temporary erection shall be repeated in reverse. The Contractor shall be required to remove temporary foundations/bases and to make good the ground in the area where the temporary display took place as per original ground surface.
2. The new Monument foundation shall be constructed in accordance with the engineer's details. Specifications prepared by Barrett Mahony Structural Consultants (Ref specification D2.2.2 & D3.2.1)
3. The core of the monument shall be reconstructed in either salvaged material or in brick (as per specification D3.1.15). These Works shall be fully specified and agreed following the evaluations carried out during the removal of the monument in Stage 1 of the Works.
4. The stone steps etc; shall be reinstated in their original location.
5. The base of the monument shall be reconstructed ensuring that bed heights and coursing match the original and that all stones are relocated to their original position.
6. The stonework shall be reconstructed to the main cylinder in its original location. The methodologies set out in item 5. shall apply to the reconstruction.
7. The bronze frieze and the wave detail shall be reinstated carefully by crane and fully protected both during and following reinstatement.
8. The cylindrical pedestal capping the frieze shall be reconstructed following the same procedures and methodologies as set out in item 5.
9. Repoint all stonework as per specification. This shall include for the taping of all joints prior to repointing in order to minimise on spillage and runoff of mortar. (Spec ref to be included)
10. Reinstale the four Winged Victories to their pedestals together with the shields of the provinces.
11. Reinstale Statue of O'Connell.

12. Wash down all stonework and bronzework. All stonework in Statues and Monuments shall be cleaned down using water (steam where necessary) as per specification D3.1.15.

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FINAL DRAFT

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