

OLD MUNICIPAL CHAMBERS

REPAIRS, RESTORATION & RECONSTRUCTION RELEVANT INFORMATION

Thursday, 8 February 2018



The following documents and key sections noted below are not an exhaustive list but provides relevant information to the repairs, restoration and reconstruction of Old Municipal Chambers.

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Ref No.	Document	File Name	Contents	Section No.	Page No.	Dated	Author	Comments
1	Relevant Information Report	1 - OMC Relevant Information Schedules 2018	Repairs, Restoration & Reconstruction Relevant Information Report for OMC dated 8th February 2018			8-Feb-18	Joseph & Associates Ltd	
2	Conservation Plan	2 - OMC Conservation Plan Part 1				1-Oct-00	Dave PearsonArchitects Ltd	For key information about OMC and its setting and pre-earthquake condition refer to Conservation Plan 2000.
3	Conservation Plan	3 - OMC Conservation Plan Part 2				1-Oct-00	Dave PearsonArchitects Ltd	
4	Verticality Survey	4 - OMC Verticality Survey-2012-05-29				29-May-12	43 Below	
5	Verticality Re -Survey	5 - 43 Below Survey Report 2013-5-28				28-May-13	43 Below	
6	Verticality Re -Survey	6 - OMC 43 Below Survey Report 120580 - 08-June-2015				8-Jun-15	43 Below	
7	Building Condition Report	7 - OMC - Building Condition Report - rev0 - 2015-07-14				14-Jul-15	BuildQual NZ Ltd	The purpose of this survey was to capture the general condition of the interior of the rooms of the building at the time of the assessment.
8	Geotech	8 - GEOTECH				1-May-16	Geotech Consulting Ltd	This developed design report summarises the geotechnical considerations relating to the restoration of OMC.
9	Conceptual Structural Remedial Options Report Rev 8	9 - Combined Report OMC Conceptual Structural Remedial Options Report Rev8				29-Jul-16	Opus International Consultants Ltd	Combined Structural Report included in original feasibility report to CCC July 2016. This report has largely been superseded by Developed Design documentation, however it contains key sections not carried through into the developed design documents sections being 2,3,4 and Appendices A, F and G. NOTE: Key sections are listed
			Background	2	2			
			Building Description	2.3	3			
			Previous Strengthening/Securing Works	2.4	3			
			Damage Observed	3	4			
			4 September 2010	3.1	4			
			22 February 2011 & Aftershocks	3.2	4			
			Water Ingress & Dry Rot	3.3	8			
			Level & Verticality	3.4	8			
			Stabilisation and Securing Works	4	9			
			Reinstatement Guidelines	5	10			
			Building Use	5.1	10			
			Heritage Considerations	5.2	11			
			Likelihood of Seismic Event	5.3	11			
			Structural Performance	5.4	11			
			Structural Analysis & Assessment	6	12			
			Global Assessment	6.1	12			
			Local Architectural Features	6.2	15			
			Foundations	6.3	15			
			Approaches to Repair, Strengthening and Resilience	7	16-17			
			Reinstatement Options	8	20			
			Buildability	8.5	26			
			Peer Review	8.6	28			
			Conclusions	9	28			
			Recommendations	10	29			
			Damage Assessment	Appendix A				
			Peer Review Comments Register	Appendix F				
			3D Scan, Level Assessment	Appendix G				

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10	DD Heritage Assessment Report	10- DD Heritage Assessment Report				24-Mar-17	Tony Ussher Architect & Conservation Consultant	This developed design report describes the history and cultural heritage significance of the building, its current condition and status, summarises the options considered for its remediation at feasibility study stage, and discusses relevant construction and strengthening processes that could be applied. The scope of the proposed work is described in detail including services and statutory upgrades required.		
			Introduction	1	3				This report has been prepared to assess the effects of the proposed interventions of the preferred developed design solution on the heritage values of the OMC.	
			Outline History	3	3				Summarised from the Heritage NZ list, reference number 1844.	
			Building Description	4	5					
			Construction & Description- Pre Earthquake Damage Status	4.1	5					
			Previous Strengthening and Alterations	4.2	5					
			Cultural Heritage Significance	5	6					
			Conservation Plan	5.1	7					The Conservation Plan (CP) by Dave Pearson Architects Ltd was prepared in October 2000 and is to be followed in regard to all works to the Chamber and its setting. Design options considered the significance values policies and recommendations of the CP.
			Description of the 2010/11 Canterbury Earthquakes Damage and Stabilisation	6	8					
			Building Surveys	6.2	15					
Heritage Fabric Recording	6.3	15								
10a - DD Significance Schedule			Schedule of Authenticity, Significance, Condition and Status	7	16			Refer also to file named 9a DD Significance Schedule		
			Options Considered for the Repairs, Restoration and Strengthening	8	21					
			General Considerations	8.1	21					
			Summary of the Feasibility Study Options considered	8.2	21					Refer also to the Matrix of Options Report prepared by consultant team.
			Masonry Wall Repair Processes Considered- Feasibility Study	8.3	22					Numerous appropriate repair processes and techniques were considered and assessed in the development of the repair and remediation strategies for the building. The structural engineering pros and cons of the options are discussed in Section 7, Approaches to Repair, Strengthening and Resilience of the Structural Remediation Options Report by Opus Consultants. Comment on the effects of the various processes and technologies on the heritage values of the Chambers are included here.
			Architectural Drawings - Developed Design	8.4	24					Existing, Full and Staged Restoration Drawings.
			Structural Strengthening: Full Restoration with Strengthening to 67% NBS	8.5	24					
			Construction & Fabric Considerations	8.6	29					
			Disabled Persons Access- Statutory Requirements & Upgrading	9.2	34					
			Existing Situation	9.2.1	34					
			Compliance with Acceptable Solutions in NZBC D1/AS1 and NZS 4121:2001	9.2.2	34					Refer to the Barrier Free report for the full assessment of upgrading requirements and recommendations.
			Considerations	9.2.3	35					
			Proposals for Electrical Services & Heating	9.3	36					Refer Opus Consultants OMC Repairs, Restoration & Report- available upon request.
			Proposed Electrical Supply and Reticulation	9.3.1	36					
			Proposed for Ventilation and Space Heating	9.3.2	36					
			Proposals for Fire Protection	9.4	37					Refer to the Enlightened Solutions Fire Report.
			Conservation Policy Considerations & Constraints	10	37					
			ICOMOS NZ Charter 2010	10.1	37					
Conservation Plan	10.2	41								
Christchurch Replacement District Plan	10.3	43								
Assessment of Effects on Heritage Values - Full Restoration	11	44								
11	Matrix of Options Considered	11 - Matrix of Options Considered				1-Apr-17	Joseph & Associates Ltd	Developed Design Report-In developing repair and reinstatement approaches for this building the Project Team have considered a broad range of materials and techniques. This section introduces this range of materials and approaches and intends to highlight the benefits and limitations of each as a basis for understanding how the options outlined in the subsequent sections have been arrived at.		
12	DD Outline Specification	12 - DD Outline Spec-31.03.17				31-Mar-17	Tony Ussher Architect & Conservation Consultant	Developed Design Report-The Outline Specification describes the work and materials according to the component parts of the building and its elements. The outline specification is divided into two parts, the first for the FULL RESTORATION proposal, and the second for the STAGED RESTORATION proposal which is a partial completion of the repair, strengthening and reconstruction of the building deferring its final restoration to a future date.		

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13	Architectural Drawings	13 - Architectural Drawings 31.03.17				31-Mar-17	Tony Ussher Architect & Conservation Consultant	The developed design architectural drawings include the following series: Drawings prefixed AE Existing Pre-Earthquake Damage Form. AF Developed Design Full Restoration. AS Developed Design, Staged (Partial Restoration)
14	OMC Structural Design Features Report	14 - OMC Structural Design Features Report Issue 1				24-Mar-17	Opus International Consultants Ltd	Developed Design Report.
			General	1	2			
			Introduction	1.1	2			The building has not been occupied since September 2010 due to the damage sustained and its risk of collapse. The building has generally been seismically stabilised to provide at least 34% NBS strength to the perimeter including areas adjacent to public access ways.
			Objective	1.2	2			The Design Features Report (DFR) is a detailed document defining the structure's design criteria and recording key decisions or outcomes. It outlines design loading, structural modelling assumptions, material properties, foundation requirements and design standards. The DFR also defines the calculation procedure and checking principles to be followed, providing a clear explanation of the full design.
			Building Use	1.3	3			At this stage the client (CCC) are expecting to use the building in essentially the same way as prior to the Canterbury Earthquake sequence.
			Approach to Consent	1.4	3			In order to future proof the building and to maximise the options for its re-use, CCC have decided to restore the building and strengthen it to a level where the damage to the building in a future earthquake is expected to be moderate. Recommendation is that when CCC apply for consent to restore the building, approval is also sought for a change in use.
			Means of Compliance	1.5	3			The design of the structure is in compliance with the New Zealand Building Code (NZBC), section B1.
			The Structure	2	3			Note: This section has both Full Restoration and Staged Information.
			General	2.1	3			
			Existing Gravity Structure	2.2	6			
			Lateral Load Resisting Structure	2.3	7			
			Full Restoration Significant Design Features	2.4	8			
			Soil Conditions	3	16			
			Summary of Geotechnical Report	3.1	16			Refer to the Geotechnical Report by Geotech Consulting, dated May 2016.
			Soil Design Values	3.2	17			Refer to the Geotechnical Report by Geotech Consulting, dated May 2016.
			Seismic Design Methodology	4	18			This section outlines the seismic design methodology adopted for the design of the seismic lateral load resisting system.
			Design Loads	5	19			
			Structural Peer Review	6	20			Ruamoko Solutions was engaged to undertake a peer review of the structural aspects of this project. The scope of the peer review is listed within this section. Ruamoko has completed a review of the concept design report in July 2016, their comments have been incorporated into the developed design documentation.
			Next Steps	7	21			There are a selection of structural items which need to be considered as part of the detailed design stage. These are summarised for future reference.
			Report Limitations	8	21			
			Full Restoration Sequencing Sketches	Appendix A				Appendix B includes Staged Restoration Sequencing Sketches.
15	Old Municipal Chambers Structural Drawings	15 - Old Municipal Chamber Structural 2017-04-04				4-Apr-17	Opus International Consultants Ltd	Developed Design Structural Drawings - not for construction.
16	Enlightened Fire Report	16 - Enlightened Fire Report	Means of Escape Fire Report			27-Mar-17	Enlightened Solutions	Developed Design Report-The purpose of this report is to satisfy Council that after the proposed alterations the building will comply with the provisions of the building code for means of escape from fire as nearly as is reasonably practicable.
17	Accessibility Report	17 - Accessibility Report 20170313				13-Mar-17	Barrier Free New Zealand Trust	Developed Design Report-Barrier Free NZ Trust was engaged to produce an Accessibility Report on Old Municipal Chambers building (OMC) with the purpose of ascertaining existing levels of accessibility compliance and providing recommendations for the improvement of accessibility which could be incorporated 'as nearly as is reasonably practicable' into the repair and upgrade works.
18	Planning Considerations	18 - OMC - Planning Matters (January edition)				19-Dec-17	Planz Consultants Limited	This updated Developed Design Report summarises Planning Considerations for the Full Restoration of the OMC including the underlying zone provisions. The underlying zone provisions provide for a range of permitted uses of the building- list included. The report lists the Key Stakeholders in the consenting process and other matters i.e. archaeological authority and planning conclusions.