MUSEU NACIONAL D'ART DE CATALUNYA

FILE: D154-2025/1

DOCUMENT: SCHEDULE OF TECHNICAL SPECIFICATIONS FOR TENDERS SELECTED BY JURY FOR THE EXPANSION AND REHABILITATION OF THE MUSEU NACIONAL D'ART DE CATALUNYA AND THE AWARD OF SERVICE CONTRACT FOR THE PREPARATION OF PRELIMINARY PROJECT FOR THE EXPANSION AND REHABILITATION OF MUSEU NACIONAL D'ART DE CATALUNYA, INCLUDING THE POSSIBLE AWARD OF SUBSEQUENT WORKS LISTED AS "POSSIBLE SUBSEQUENT AWARDS"

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NOTE: These contract packages and documents are available on the Contractor Profile for the Museu Nacional d'Art de Catalunya, in Catalan, Spanish and English. In the event of discrepancy between the different versions, the Catalan language version will prevail.

Nomenclature:

STAGE 1: TENDERS SELECTED BY JURY FOR THE EXPANSION AND REHABILITATION OF THE MUSEU NACIONAL D'ART DE CATALUNYA AND THE AWARD OF SERVICE CONTRACT FOR THE PREPARATION OF PRELIMINARY PROJECT FOR THE EXPANSION AND REHABILITATION OF MUSEU NACIONAL D'ART DE CATALUNYA

STAGE 2: POSSIBLE AWARD OF SUBSEQUENT WORKS LISTED AS "POSSIBLE SUBSEQUENT AWARDS"

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ONE. CONTRACT INFORMATION

1.1. Purpose of this contract

This contract sets out the specifications for the tender of projects to be selected by jury for the expansion and rehabilitation of Museu Nacional d'Art de Catalunya, and the award of the service contract for the preparation of the preliminary project for the expansion and rehabilitation of the Museu Nacional d'Art de Catalunya, as well as the possible award to tender recipients of the subsequent works listed as "Possible subsequent awards" in Section B of the Table of Characteristics in the Schedule of Specific Administrative Clauses (hereinafter SSAC) (*Plec de Clàusules Administratives Particulars* in Catalan), in accordance with articles 168 d) and 170.2 of Law 9/2017, of 8 November regulating public sector contracts, and article 18.2, of Law 12/2017, of 6 July, on Architecture.

STAGE 1: Present tender
Prior studies and preliminary project

STAGE 2: Possible subsequent awards
Basic architectural design and installations project
Architectural design and installation executive project
Works management and final certification
Environmental permit (for project and works)

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This Schedule of Technical Specifications, in addition to the Schedule of Specific Administrative Clauses (hereafter SSAC) forms part of the contract, and must be signed, as proof of conformity, by the successful party in order to formalise the contract.

The scope of the project covers the expansion and rehabilitation of the Museu Nacional d'Art de Catalunya (hereafter, the Museum). This shall include all structural, construction and historical elements of the grounds and buildings indicated in Annex A "Functional plan for the New National Museum of Art of Catalonia" with an estimated implementation budget of €64,764,080.38.

All documents required for a Technical Suitability Report issued by a collaborating entity of the city council are to be submitted, as well as any needed for the permit/works notice from the Barcelona City Council.

1.2. Commission

A) <u>Present tender</u>

<u>The Preliminary Project shall include:</u>

- Preliminary project. This shall include at least the following elements:
    - Descriptive and supporting report.
    - Site layout and architectural design project for the buildings and their interconnection.
    - Budget. General cost estimate for works.

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- Application and processing of Preliminary Heritage Report for the Palau de Victoria Eugènia building (this shall include specific formal structure for processing with Barcelona City Council) and favourable report from the City of Barcelona Territorial Commission for Cultural Heritage, if required for works involving the Palau Nacional.

- Core testing plan, geo-technical assessment plan and structural study of Palau de Victòria Eugènia.

- Pathology study to be conducted on the Palau de Victòria Eugènia.

- Building energy simulation study comparing energy production systems.

- Basic maintenance plan.

- Estimated schedule for the implementation of the project in all phases.

- 3D images of the architectural project and interior walk-through simulation of the interior of the Palau de Victòria Eugènia and the performance spaces of the Palau Nacional.

- A physical mock-up of the urban surroundings (of both palaces together), appropriately scaled so as to correctly visualise the project.

- A physical mock-up showing the internal layout of the museum programme at the Palau de Victòria Eugènia, appropriately scaled so as to correctly visualise the proposal.

B) <u>Possible subsequent tenders:</u>

<u>The Basic Project will include:</u>

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- Basic project detailing architectural design and engineering.
- Project indicating fixed equipment and furniture for the following spaces: entrance hall and reception areas in both buildings, rest areas, auditorium, shop/bookstore, food services (restaurant/cafeteria), furniture for the library spaces and seating for exhibition spaces.
- Documentation and processing of permits (following specific formal structure for processing with Barcelona City Council): core testing plan, historical study, colour analysis, building pathology study and other required documents.
- Health and safety study for the entire project (includes adaptation works for the internal connection between the two buildings).
- Annex showing project compliance with CTE-DB SI (Basic Safety Document of the Technical Building Code).
- Acoustic studies needed to define the proposal.
- Lighting studies needed to define the proposal.
- An environmental study ensuring that the new building will obtain the highest possible certification (LEED or BREEAM).
- An environmental plan to ensure that the construction company will conduct its operations during the project with minimal environmental impact.
- Maintenance plan.

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- 3D images of the architectural project and interior walk-through simulations of the entire museum complex (Palau de Victòria Eugènia, Palau Nacional and communication between the two).
- Estimate of all the provisional works needed for the correct implementation of the project for both buildings, if needed.
- Expenses related to endorsements from professional bodies.

The Executive Project will include:

- Architectural and engineering executive project.
- Project indicating fixed equipment and furniture for the following spaces: entrance hall and reception areas in both buildings, rest areas, auditorium, shop/bookstore, food services (restaurant/cafeteria), furniture for the library spaces and seating for exhibition spaces.
- Restoration and historical preservation project.
- Processing of documentation related to Monuments of Local Interest.
- Archaeological project.
- Archaeological Research Project (Projecte d'Investigació, or PIA, as per its acronym in Catalan).
- Health and safety study for the entire project (includes adaptation works for the internal connection between the two buildings).
- Certificate of Energy Efficiency for the project (including processing costs and any fees derived from obtaining ICAEN certification).

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- Preparation of facilities to ensure they meet legal requirements.
- Processing required in obtaining Fire Department approval.
- Processing required in obtaining the environmental permit for municipal activity. Plan detailing Communication prior to start of work according to a technical project (in Catalan: *Comunicació prèvia a l'inici d'activitat amb projecte tècnic*).
- An environmental study ensuring that the new building will obtain the highest possible certification (LEED or BREEAM).
- An environmental plan to ensure that the construction company will conduct its operations during the project with minimal environmental impact.
- Environmental quality study to ensure the highest possible WELL certification.
- Acoustic studies needed to define the proposal. *The technical requirements of all installations and museum-specific equipment must be detailed and specifically defined.*
- Lighting studies needed to carry out the proposal. *The technical requirements of all installations and museum-specific equipment must be detailed and specifically defined.*
- Protection and security plan.
- BIM Implementation Plan.
- Building manual.

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- Maintenance plan.
- 3D images of the architectural project and interior walk-through simulations of the entire museum complex (Palau de Victòria Eugènia, Palau Nacional and communication between the two).
- Estimate of all the provisional works needed for the correct implementation of the project for both buildings, if needed.
- Any other additional technical tasks that may be necessary during the construction process for the commissioning of the building.
- A physical mock-up of the urban surroundings (of both buildings together), appropriately scaled so as to correctly visualise the proposal.
- A physical mock-up showing the internal layout of the museum programme at the Palau de Victòria Eugènia, appropriately scaled so as to correctly visualise the proposal.
- Expenses related to endorsements from professional associations.

Works Management shall include the following components:

- As-Built plans and final report.
- Architectural works management.
- Engineering works management.
- Management of team of restoration and historical experts.
- Management of team of archaeological experts.

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- Integration of the Archaeological Research Project into the overall project.
- Coordination with works implementation manager to ensure quality control.
- Drafting of work records and meeting minutes.
- Completion of any tasks needed to obtain favourable fire safety report and environmental permit. This shall include approval of plan detailing "Communication prior to start of work according to a technical project". The contracting of any agencies to monitor and issue pertinent certificates in this regard shall also be included.
- Certificate of energy efficiency for the finished building.
- Steps required to achieve highest LEED or BREEAM certification for Palau de Victoria Eugènia, to be selected by the property owner.
- Steps required to obtain WELL environmental quality certification.
- LEED or BREEAM certification for Palau de Victoria Eugènia, to be selected by the property owner.
- WELL certification for Palau Victoria Eugènia.
- The final certificate of works, approved.
- Final certificate of installations.
- 3D images and real-time interior walk-throughs of the entire project (Palau de Victòria Eugènia, pertinent spaces of the Palau Nacional and connection between both buildings).

- If archaeological discoveries are made during excavation, the project will be adapted to highlight their significance and accommodate them accordingly.
- If necessary, the preparation and justification of any disputed costs that may have arisen shall also be included, along with corresponding modifications to the project.
- Any other additional technical tasks that may be necessary during the construction process for the commissioning of the building.
- Expenses related to endorsements from professional bodies.

The contracting of the Works Implementation Management and the Safety and Health Coordination Services on-site is not included in this tender and are to be solicited separately.

When these services are specified in the submission of technical documents prepared by qualified professionals, it is essential that they comply with current building regulations and receive the necessary professional approval.

1.3. Variations and amendments

Any minor amendments (variations, adjustments, modifications and changes arising from previous studies and requirements, including variations in lot dimensions, etc.), resulting from documentation provided by the Museum, or introduced by the Museum or the successful party (subject to Museum approval prior to implementation), shall also be included in this scope.

1.4. Required work by successful party

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The successful party will undertake all necessary work to fully comply with the objectives of this commission, in accordance with the specifications outlined in the *Document de comprovació del contingut del projecte* (Project Verification Document) prepared by the College of Architects of Catalonia.

1.5. Prior verifications

Also included in the scope of this commission are any required setting-out or preliminary verifications to confirm on-site project forecasts regarding points of interest or unique features.

In particular, the following considerations in this regard must be taken into account:

- Placement of buildings within the lot, including the overall layout of the main projected elements and determination of the initial staking point.
- Boundary delineation, encompassing the perimeters of existing surrounding roadways.
- Verification of available space for the planned project on the assigned lot.
- Presence of affected services and/or easements: electrical lines, telephone lines, underground conduits.
- Adherence to current regulations including urban planning, environmental guidelines, and other applicable standards.
- Details and precise locations of all connection points required for essential installations and services including electricity, gas, and

sanitation.

Also included are any other aspects deemed necessary by the Museum for verification.

1.6. Applicable regulations

The successful party shall comply with the prevailing regulations applicable at the time of project drafting for its implementation.

1.7. Coordination of health and safety measures

Any designer that may be subsequently awarded such work shall undertake the role of health and safety coordinator throughout the duration of the project. They shall be fully accountable for the content of the Health and Safety Study and for ensuring compliance with all relevant regulations.

1.8. Coordination with the Museum and various stakeholders

Due to the complexity of the building operations and the involvement of multiple stakeholders, the successful party must coordinate with these parties to effectively fulfil their assigned tasks outlined in the contract.

To facilitate the subsequent implementation of a museum project proposal in the buildings, the contractor shall collaborate closely with the museum's technicians and those responsible for drafting the museum project proposal. This will enable implementation of the museum project during the final stage of the project or upon completion of the work.

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1.9. Oversight and authorship of the work

The oversight, monitoring, control, and approval of the drafting work for both the preliminary project and any possible subsequent awards fall under the responsibility of the Museum.

The Museum may execute all required tasks using its own staff or through third-party representatives acting on its behalf.

If the contract is not fulfilled, the Museum reserves the right to independently revise any portion of the assigned project or delegate this task to third parties. To facilitate this process, the successful party will provide the necessary data well in advance, ensuring that the aforementioned tasks can be undertaken without affecting any of the agreed-upon deadlines with the Museum. However, while the successful party is not obligated to undertake the content of work commissioned by the Museum to third parties, they are responsible for meeting deadlines and completing necessary tasks to ensure seamless integration of the delivered work within the project.

The authorship of the work shall remain with the successful party. The successful party is responsible for the proposed solutions, definitions, reports, calculations, specifications, measurements, budget, graphic documentation, and all other project documentation, unless they have clearly and in writing expressed disagreement with any of the criteria or solutions presented by the Museum.

1.10. Signatures and dates

The preliminary project and the possible subsequent awards (basic project and project implementation) under this commission must be signed by a Senior Architect as Project Author. Project documents requiring special

responsibility, as determined by the Museum must be signed by the technician responsible for their preparation. This individual will also be responsible for the accuracy of the content transcribed in these documents.

All project documents shall be dated, specifying the location, month and year of their creation.

1.11. Delivery of documents

A) Preliminary project

A final document in *.pdf format will be submitted for this preliminary project tender.

Additionally, the project report will also be delivered, with texts in *.doc (Word) format, and measurements and budget in *.xls (Excel) format. Plans are to be provided in editable .dwg (AutoCAD) format.

The physical project mock-up and the simulated walk-throughs specified in section 1.2 are also required.

B) Basic and executive project

For any possible subsequent awards, a final project document is to be delivered, containing project report and plans according to the Project Verification Document prepared by the College of Architects of Catalonia, in *.pdf format.

The original plans are to be drafted in BIM, ensuring they are at a sufficient and appropriate scale to comprehensively convey their content and facilitate complete understanding. The drafting of the project will adhere to the standards outlined in the BIM Guide and BIM Manual, as detailed in Annexes

D and E respectively.

An editable version of the final *.ifc (BIM) file and a converted *.dwg (AutoCad) version is to be delivered.

The project report will also be delivered in *.doc (Word) format for the text, and the measurements and TCQ budget is to be provided in a compatible FIEBDC-BC3 format. An editable version converted to *.xls (Excel) format is also required.

The physical project mock-up and the simulated walk-throughs specified in section 1.2 are also required.

1.12. Personnel and resources of the successful party

Throughout the entire duration of the contract (including possible subsequent awards), the personnel required to be part of the successful party's technical team must include, at minimum, those individuals present in the initial tender.

Any changes to equipment with respect to that indicated in the original offer submitted during the tender process must be of a professional standard equal to or higher than that originally stated. These changes must be communicated to and approved by the Museum.

The successful party will possess all necessary resources, including computer equipment, to ensure the proper implementation of the assigned tasks.

1.13. Museum Resources

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To facilitate the tasks outlined in the contract, the Museum will provide the successful party with the following documentation, in addition to the attached technical documentation (please see Annexes):

Phase 1 (1st round) of the project tender:

- Approximate survey of the Palau de Victòria Eugènia and the Palau Nacional in *.dwg format (AutoCad). This document shall be sent by email to contractors interested in participating in the project tender after requesting the mandatory visit to the property. This will be sent in an email which shall also confirm the time and date of their visit.

Phase 2 (2nd round) of the project tender:

- Topographic survey of the area in *.dwg format (AutoCad).
- Pathology report for the Palau Nacional from 2017.
- Historical study of the Palau de Victòria Eugènia.
- Plans indicating underground elements, dated April 2024.

This information will be provided to parties selected for the second phase, in a restricted manner, through the Public Procurement Services Platform.

The party selected for project tender (STAGE 1) shall receive the following:

- Any other documentation that is deemed relevant for the correct implementation of the project.

The successful party must verify the plans and create an accurate survey of the ground plans and sections, in order to execute the project.

If pathologies or technical impossibilities are detected during the preparation of the project report, the relevant managers must be notified as soon as possible.

For the drafting of the project, as many visits to the site as necessary may be made, provided that prior notice is given to the Museum.

The party selected in possible subsequent awards (STAGE 2, Basic executive project):

- Geotechnical study of the Palau de Victòria Eugènia and the connection between the two buildings.
- Any additional documentation deemed relevant for the proper implementation of the project.

1.14. Project quality assurance

The successful party must take all necessary measures during the drafting of the project to ensure that it meets the requirements and specifications set forth by the Museum. To this end, the successful party will conduct an internal review of the documentation comprising the project during its drafting. They will ensure that this documentation is consistent in format, aligns with the requested content, and is free of errors and discrepancies.

The internal review performed by the designer as per section 1.11 of this specification is independent of the supervision that the Museum will conduct during the drafting of the project. Therefore, the designer must ensure that the documentation submitted to the Museum for its supervision is consistent, adheres to the requested content and format, and is free of any errors.

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1.15. Monitoring and control

To facilitate monitoring and control tasks, Museum staff shall be given access to the data and documents being prepared by the successful party at any stage of development. For these purposes, the successful party, either directly or through their hired technicians or partners, must provide any information required by Museum staff required for this purpose.

During the follow-up and review meetings, the successful party must provide the documentation agreed upon with the Museum, ensuring that the documents and work plans are clear and understandable.

1.16. Anomalies

If, in the documentation provided by the successful party, the Museum identifies and confirms any of the following anomalies:

- Project formulation and drafting is performed by personnel and resources other than those originally described in the tender documents or using alternatives not previously authorised by the Museum.

- Failure to meet any partial or overall deadline specified in the current work schedule approved by the Museum.

- Failure to comply with current regulations in the project and/or failure to adhere to any section of these Specifications or their Annexes.

- Repeated failure to review and ensure compliance of the documents to be delivered to the Museum by the successful party.

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In the cases mentioned above, and after notifying the successful party, the Museum reserves the right to undertake the drafting or revision of the project sections affected by the identified anomalies, either independently or through third parties. Any costs incurred by the Museum for these actions will be deducted from the amount payable to the successful party for the entire project drafting.

Similarly, for any possible subsequent awards, the Museum reserves the right to request resubmission of documentation if the successful party repeatedly submits non-compliant documents, as per the established process for project quality control.

In particular, the Museum reserves the right to verify the accuracy of the measurements obtained from the plans, either independently or through third parties. In case of discrepancies, the costs associated with this verification will be borne by the successful party. In addition, the successful party must rectify the affected documents at no additional charge to the Museum.

Making the aforementioned corrections does not exempt the successful party from adhering to the agreed terms or from any penalties that may be imposed.

Two. SCOPE OF THE COMMISSION

2.1. Objectives of the action

The main objectives of the action are:

- **To enhance the Museum's core missions with new spaces to achieve broader outreach and increased social impact.** At present, the Museum's project for expansion is essential to enable it to effectively fulfil its missions in public service according to the multiple dimensions of the institution: local, national, international.

- **Greater citizen engagement and accessibility.** With the goal of adapting to the present and preparing for a future marked by significant changes—including technological advancements and the complexities of a globalised world fraught with ongoing conflicts—the Museu Nacional aims to continue its transformational journey. This new direction is driven by a commitment to becoming an accessible, inclusive, and socially committed space that prioritises environmental stewardship, with the visitor experience at its heart. The museum aims to enhance its public visibility as a hub for knowledge, education, and dialogue, promoting the engagement, participation, and critical thinking of all citizens. It also seeks to uphold and expand its roles in the safeguarding, collection, research, and dissemination of our heritage and its context.

- **Engagement with the city and permeability.** The addition of the Palau de Victòria Eugènia aims to integrate the Museu Nacional into the urban fabric of the city, ensuring full accessibility. Likewise, the Museum seeks to be porous and permeable to its surrounding area, particularly as it connects with the urban park of Montjuïc and its amenities.

- **To ensure and enhance the Museum's role in safeguarding and preserving cultural and artistic heritage.** The current rapid growth of collections, overcrowded reserve spaces, and their poorly distributed and inaccessible nature greatly impede the museum's role in this regard.

These conditions hinder the visibility of a substantial portion of the collection, which remains housed in areas that are not open to the public. This objective is inherently linked to the technical enhancement of the museum's scientific facilities, as part of its mission to establish itself as a leading European centre for the restoration and preventive conservation of artistic and cultural heritage.

- **Architectural value.** The architectural project must enable the deployment of the new museum's functions and imbue the spaces with the representativity expected of a building of this calibre. It should ensure a captivating and memorable visitor experience without compromising the spatial coherence and historical and cultural value of the building.

2.2. Scope of the intervention

Context of the intervention

The architectural project under this call for tenders involves three complementary actions:

- **Rehabilitation of the Palau de Victòria Eugènia (PV), to transform it into a suitable museum space.** This palace currently has a total area of 14,397m^2 plus an annexed triangular area of 490m^2. It is proposed to expand the current surface area to accommodate the required Museum programme with an area extending into a partial mezzanine and underground, the dimensions of which will be determined according to the architectural proposal. In addition, it is proposed to redesign the annexed triangular area for logistical purposes.

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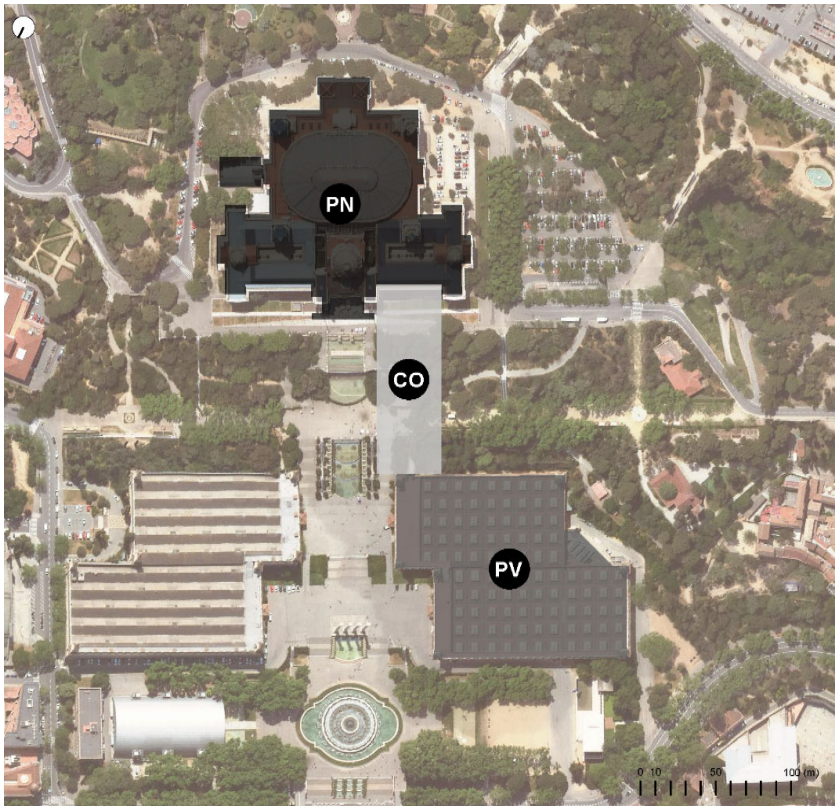
- **Partial rehabilitation of the Palau Nacional (PN),** current headquarters of the Museu Nacional, to address existing deficiencies and introduce functional improvements. This is to include the enhancement of public-use areas and internal spaces, particularly due to the relocation of various functions to the Palau de Victòria Eugènia. The proposed renovation is to be undertaken on the built surface of 8,735m^2, and the access deck (520m^2).

- **Underground passage between the two buildings (CO),** for people as well as goods and infrastructure. This passage should not measure more than 2,900m^2.



Scope of the intervention

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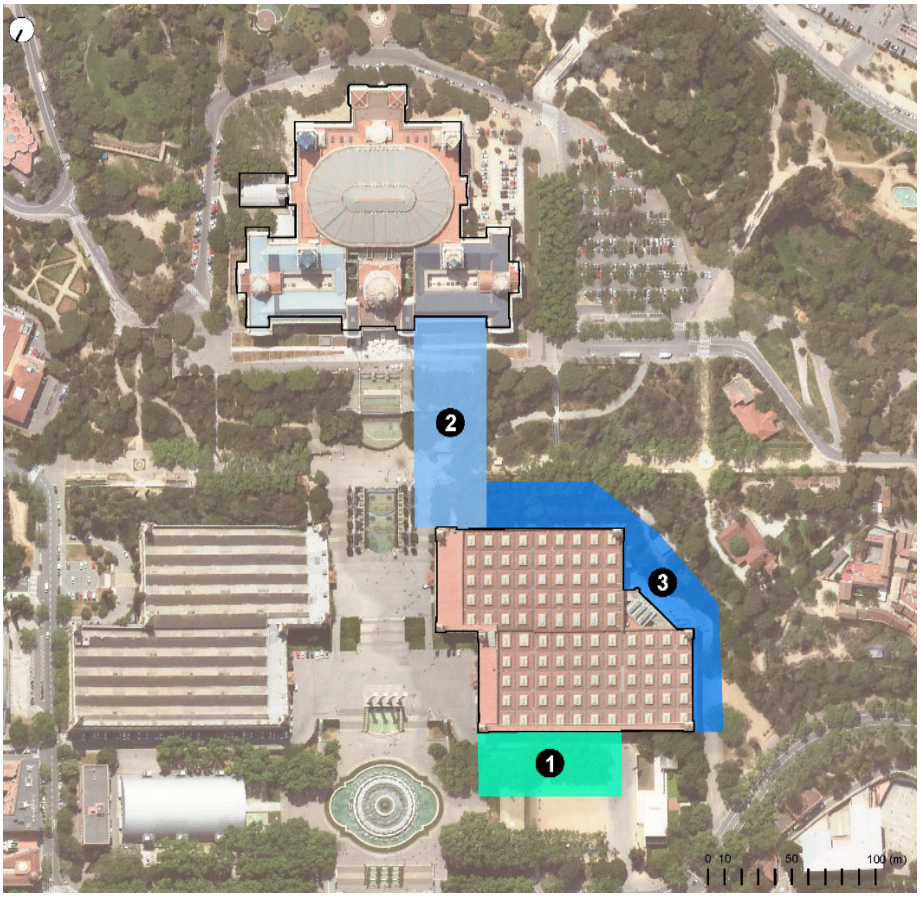
Considerations regarding surrounding area

The surrounding area rehabilitation projects shall be managed by the Barcelona City Council as part of the basic proposal for the remodelling of the Montjuïc Park area. Nevertheless, integration of Museum buildings with their surroundings is crucial in order to improve accessibility, prominence, and integration with public spaces. Thus, the architectural project for the expansion and rehabilitation of the Museu Nacional must include conceptual proposals for the following spaces, which the City Council will evaluate when developing the entire park project:

- **Design of Carles Buïgas Square (1)**, considering that the main entrance to the Museum will be through the Palau de Victòria Eugènia façade facing the square, and noting the presence of an existing circulation ramp attached to the façade. In addition to the proposed entrance design, suggestions should also include elements such as signs or sculptures to enhance visibility of the Museum entrance, whilst keeping in mind that the entire square will be developed uniformly by the City Council.

- **Above-ground passage between the two buildings (2)** (Palau Victòria Eugènia and Palau Nacional) for people.

- **Redesign of the rear slope of the Palau de Victòria Eugènia (3)** and reorganisation of the lateral space, to facilitate the passage and movement of service vehicles and loading and unloading of cultural goods.



Interventions in the surrounding area (proposals)

2.3. Functional programme:

The functional programme is described in Annex A "Functional plan of the new Museu Nacional de Catalunya".

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Three. GENERAL CRITERIA

3.1. Centralised Management (BMS system) at Palau de Victòria Eugènia and interconnection of buildings

The project must include a centralised management facility equipped with user-friendly management software designed for interactive operation. The management facility should offer an overview of the system, facilitating reliable and immediate identification of various alerts.

The centralised management facility shall allow for the following functions:

- The management, control and monitoring of the primary technical installations within the building, integrating them comprehensively and interdependently across various systems including air conditioning, ventilation, and lighting control.
- Ensured stability of all the building's operating variables.
- Autonomous building management ensuring the timely detection of errors or deficiencies in building systems, with a system of alerts via any available means of personal notification. Remote monitoring.
- Ensured operation of the system itself and the equipment it controls. Service support for continuous operation.
- Reduced operating expenses. Integration with maintenance systems to optimise systems and reduce operating costs.
- Regulation of basic comfort parameters: temperature, humidity, servicing schedules, as well as management of data collected from these parameters.

- Improved installation performance. Continuous measurement and analysis of energy and water consumption.
- Alert management: configuration of environmental parameter alerts, pre-alerts and alert notifications (clogged filters, tripping of electrical protection, etc.), malfunction and fault alerts, alert logs, etc.
- The system installed at the Palau de Victòria Eugènia must be capable of communicating with the existing CMMS (Computerised Maintenance Management System) at the Palau Nacional.

The system's programming languages must use open protocols, enabling the integration of any system. In addition, the system must be equipped with sufficient field elements—probes, actuators, controllers, etc.—to enable the control system to function effectively.

The centralised management system is to be installed in the building's control and security room.

3.2. Sustainability and energy saving across the entire project scope

Basic sustainability and energy saving requirements that the Palau de Victòria Eugènia project must include:

- **Nearly-Zero Energy Building (NZEB). Eco-efficiency and energy saving.**
- **Energy Performance Certificate Class A.**
- **LEED or BREEAM certification,** to be chosen by the property owner.

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Specifications for the entire project:

- The building design and construction processes should prioritise durability and prolonged useful life of facilities and spaces.
- Preference should be given to materials with minimal environmental impact that ensure the building's longevity and durability.
- Passive environmental control systems tailored to each specific space should be employed, provided that the requirements of the respective spaces allow their implementation.
- Due consideration must also be given to the overall thermal and water performance of the entire building.
- The use of passive and active energy management systems to control building energy consumption.
- Building design that minimises the number of hours requiring artificial lighting and climate control, whilst ensuring a uniform and consistent indoor environment.
- Installation of hot water systems only where strictly necessary.
- Installation of water-saving systems such as timers on taps in restrooms and dual-flush mechanisms in toilets.
- Installation of renewable energy systems. It is essential that the building complies with Barcelona City Council and the Energy Agency regulations.
- A temperature and humidity control system that is designed for exhibition rooms, goods storage areas and workspaces.

- Soundproofing design considerations should align with external noise levels and enclosure types to address airborne noise transmission, impact noise transmission, and enclosure reverberation. Prominent machinery noise should be minimised both inside and outside the building, as well as between areas housing different types of activities.

The Palau de Victòria Eugènia must comply with the *Protocol d'energia per a edificis i equipaments municipals* (Energy Protocol for municipal buildings and installations) (https://bcnroc.ajuntament.barcelona.cat/jspui/handle/11703/108948).

In addition, due consideration is to be given to the Order "*Instrucció 1/2023 sobre la implantació d'energies renovables en béns culturals d'interès nacional (BCIN)"* (Instruction 1/2023 on the installation of renewable energy systems in national monuments of cultural interest of the Department of Culture) for the Palau Nacional. This document is attached as Annex G, and its compliance must be substantiated. Should this system be incompatible with the nature of the project, its absence is to be justified in the project and, where appropriate, compensated with alternative measures that are technically and economically feasible.

3.3. Maintenance and occupational risk prevention across the entire project scope

Specifications:

- Ensure that the project and building design incorporate elements that facilitate the maintenance, cleaning, and preservation of spaces and facilities.

- Formulation of an appropriate maintenance programme for the building.
- A window cleaning system must also be envisaged. Installation of essential elements to facilitate its safe implementation.
- Reduction and simplification of maintenance operations.
- Due consideration is to be given to occupational risk prevention legislation during the project design stage.

3.4. Structural elements across the entire project scope

The solutions implemented in the building(s) are to be defined and justified:

- The restoration and adaptation of structural elements must ensure the safety of the building and its suitability for the new intended use.
- Since this is a rehabilitation project, it is crucial to specify the scope of regulations based on the type of intervention. In cases where a regulatory instrument is incompatible with the nature of the project, this is to be justified with the project and where appropriate, compensated with alternative measures that are technically and economically feasible.
- The project must encompass key considerations such as function, building characteristics, and environmental conditions.
- Structural safety conditions: The following aspects shall be indicated in this section:

- The expected service life of both the main structural elements and replaceable components (such as railings and installation supporting structures) in accordance with current regulations.
- Any requirements that exceed regulatory values such as differing loads, deflection limits, and allowable settlement values.
- Usage limitations if any.

The specific definition of structural safety requirements and the adopted solutions in the project, including their regulatory compliant design and dimensions, will be detailed in the relevant sections of the construction report and graphic documentation.

3.5. Building use safety across the entire project scope

This section defines and justifies the general solutions adopted in the building(s) to ensure safety in building use.

- It will be necessary to specify the scope of the application of the regulations in keeping with the type of intervention. In cases where a safety solution is incompatible with the nature of the project, this is to be justified within the project and where appropriate, compensated with alternative measures that are technically and economically feasible.
- Safety conditions in building use:
    - This section sets forth the project's safety conditions which ensure compliance with safety requirements for building use,

indicating regulatory compliance. In the event that the requirement is not necessary, this must be indicated.

- Any solution that differs from the regulations is to be adequately justified. Here it is also necessary to specify any requirements that significantly exceed regulatory standards that will enhance safety measures.

- For the parameters that affect the construction systems, structure, and installations, compliance justification is to be indicated in their respective sections.

- The safety conditions that reduce the risk of falls.

  - Safety of surfaces: definition of slip-resistance of floor surfaces. In the definition of building paving materials, the required parameters are to be indicated as well as their compliance.

  - Pavement discontinuities: conditions of foot-traffic floor.

  - Changes in floor levels: safety barriers and their characteristics must be stated.

  - Stairways (restricted, general, public use): widths, steps, landings, barriers, handrails, signage, etc. are to be indicated.

  - Ramps (general and accessibility ramps): widths, slopes, lengths, landings, barriers, handrails, etc. are to be indicated.

  - Exterior glass cleaning indications.

- Conditions that will reduce the risk of impact or entanglement:

  - Impact from fixed, moveable, and fragile elements and from hard-to-see elements: free heights, signage, etc.
  - Entanglement.
- Conditions to reduce the risk of being trapped in closed spaces:
  - Doors in small rooms: devices and opening force are to be considered.
- Conditions to reduce risks associated with inadequate lighting:
  - Minimum levels for normal lighting are to be defined for each area.
  - Emergency lighting: equipment, areas, and conditions.
- Conditions that reduce the risk associated with high occupancy:
  - Indicate location and whether compliance with this requirement is necessary.
- Slope conditions for standing spectators, if applicable.
- Conditions to reduce the risk of lightning:
  - Indicate whether a lightning protection system is required.
  - Type of installation required.

This should be accompanied by graphical support.

3.6. Accessibility and inclusiveness across the entire project scope

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Solutions adopted in the building(s) which ensure compliance with accessibility standards must be defined and justified:

- This section indicates that the building has been designed to meet the accessibility requirements outlined in the regulations and as stipulated in the commission text. This shall include outdoor accessibility, accessibility between building levels, and the use of other elements that ensure accessibility.

- The building will incorporate measures to ensure equal treatment and non-discrimination, promoting inclusiveness in all elements and spaces.

- The building shall be designed to accommodate functional diversity of all types using features that ensure accessibility such as audio induction loops in meeting rooms, accessible signage, and tactile paving.

- It will be necessary to specify the scope of the application of the regulations for interventions of this kind. In case of incompatibility with the nature of the intervention, it must be justified in the project and, where appropriate, compensated with alternative measures that are technically and economically viable.

- Accessibility conditions: the project's accessibility conditions shall be specified, with an indication of how the requirements shall be fulfilled and compliance with accessibility regulations.

- Substantiation of accessibility level and the required functional accessibility conditions: the scope of accessibility conditions is to be defined in keeping with building use and surface area or type of

intervention. Priority will be given to those that foster autonomous mobility without the need for lifting equipment such as elevating platforms or vertical lifts.

- Use of accessible elements: accessible elements provided in the building shall be determined in relation to those required by the regulations: restrooms, changing rooms, furniture, and other elements.

- Accessible routes: accessible routes available in museum building and accessible interconnection of spaces and elements are to be defined. Outdoor accessibility shall also be considered as well as accessibility of each floor and between floors.

- Accessible itinerary characteristics must also be indicated (changes in floor levels, widths, turning space, doors, floor coverings, ramps, lifts, etc.) as well as other features ensuring accessibility (dimensions, conditions, barriers, accessories, signage, etc.).

- Designation of safe areas to guarantee safety in case of emergency (self-protection plan).

The above must be accompanied by graphical support.

Accessibility specifications are to be incorporated into the design and characteristics of the construction elements and corresponding installations (ramps, stairs, lifts, doors, pavements, etc.).

3.7. Fire safety across the entire project scope

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In this section a general definition of solutions to be used in the building is provided, along with their justification. These solutions shall meet the basic requirements in terms of fire safety.

- Conditions that reduce internal propagation of fire:
    - It will be necessary to specify the scope of the application of the regulations in keeping with the type of intervention. In cases where a safety solution is incompatible with the nature of the project, this is to be justified within the project and where appropriate, compensated with alternative measures that are technically and economically feasible.
    - Regulations applied and other reference documents: The regulations applied within the project (national, regional and municipal) are to be specified to establish the safety requirements in case of fire as well as the regulations applied to meet said requirements.
- Environment and building conditions:
    - The details influencing adopted solutions are to be included under their respective headings: access points, primary building use, other planned uses, fire risk areas, evacuation heights both upward and downward, total built surface area and the surface area designated for each use, etc. Any usage limitations should also be indicated.
- Safety conditions in case of fire:
    - The project's fire safety conditions must be specified to ensure compliance with the necessary regulations, indicating said compliance.

- Any solution that differs from that stipulated in fire safety regulations is to be adequately justified. Here it is also necessary to specify any requirements that significantly exceed regulatory standards that will enhance safety measures (e.g. greater provision of installations).
- For the parameters that affect the construction systems, structure, and installations, compliance justification is to be indicated in their respective sections.

- Conditions for fire brigade access and external building evacuation:
  - Any provisions made in the project that ensure fire brigade intervention and safe evacuation of the building in case of fire shall be included, covering the affected external configuration of the building and the surrounding areas. In particular, it will be necessary to define:
    - Conditions of approach and of the surrounding area: access roads and manoeuvring space (dimensions and separations at building access points). Fire hydrants on public roads. Other conditions.
    - Accessibility through building outer walls: accessible outer walls, ground level access points, access points on the first floor.
    - Building, outdoor space exits and safe outdoor spaces for the evacuation of occupants: allocation of occupants and size.

- Conditions that limit fire propagation and the fire resistance of building structure:
    - Solutions that reduce fire propagation and the fire resistance of the building structure in case of fire shall also be defined. In particular, it will be necessary to define:
        - Conditions that reduce internal propagation of fire.
        - Conditions that reduce external propagation of fire on the outside of the building.
        - The building structure's level of fire resistance.
- Provisions for the evacuation of the occupants from the building:
    - The provisions made in the project that ensure the evacuation of the occupants, which must be fully compliant. In particular, the following is to be defined:
        - The criteria used in building evacuation: this should include restrictions on occupation, compatibility of evacuation elements, and other aspects.
        - Calculation of the occupation of each area, floor, sector, building.
        - Evacuation elements (exits, corridors, lobbies, stairs and ramps): Design and size of exits and evacuation routes (number, widths, lengths), required characteristics.
        - Signage and lighting of evacuation elements.

- Compliant smoke control systems.

- Fire protection systems (FPS):
  - The provisions made in the project for fire protection will be specified for each building use or sector, and is to be justified based on the characteristics of the building, the stipulations of this commission and pertinent regulations:
    - Portable fire extinguishers.
    - Fixed fire extinguishing systems - equipped fire hose reels, dry columns, fire hydrants and automatic fire sprinklers.
    - Water supply: water tanks, pressure groups.
    - Fixed fire systems, using water spray or mist.
    - Fixed fire extinguishing systems using gaseous agents.
    - Other fire extinguishing systems.
    - Fire detection and alarm: automatic detection; alarm, alarm notification.
    - Smoke and heat control systems: car parks, atriums, establishments; overpressure of stairways.
    - Other systems (electromagnetic systems for closing doors, vents, etc.).

- If necessary, any features added to the building to improve fire safety and/or to compensate for passive safety conditions that do not comply with current regulations should also be indicated.

- The construction report and its corresponding graphic documentation must detail installations, requirements, dimensions, materials, equipment, and regulations governing the installations, ensuring coordination with the main fire protection system and overall building management.

Fire suppression systems must be compatible with the conservation of cultural heritage and must be approved by the Museum's Department of Restoration and Preventive Conservation.

Each section should be accompanied by graphical support.

3.8. Humidity measures and waste disposal across the entire project scope

As this project involves existing buildings, the scope of regulations based on the type of intervention is to be specified. Should this be incompatible with the nature of the project, its absence is to be justified in the project and, where appropriate, compensated with alternative measures that are technically and economically feasible.

- Protection against humidity:
    - Walls and floors: Relevant data regarding building and surrounding area (presence of water and impermeability coefficient of surrounding land, based on the data from the geotechnical study). Requirement: the level of impermeability must be defined.

- Façades: Data on the building and surrounding area (degree of exposure to the wind and rainfall area). Requirement: the level of impermeability must be defined.
- Roof: Indicate whether roof characteristics are compliant.
- The risk of condensation will be controlled by complying with regulations limiting energy demand in buildings.
- To ensure the conservation of works of art, comprehensive control of relative humidity is crucial. For this reason, the Palau de Victòria Eugènia must be impermeable to potential water inflows and outflows whether through walls, floors, or roof, either directly or via capillary action.
- The project must consider the risk of potential water ingress in the building, ensuring that machine rooms and installation passages are not located in areas where a malfunction could cause water damage to cultural assets.
- Waste collection and disposal:

The specific design and dimensioning of the spaces and installations are to be detailed in the construction report and corresponding graphic documentation, taking into account the following factors:

- Waste collection, disposal and treatment systems and installations.
- Areas for waste containers (by building or by zone).

3.9. Flexibility of use

The building should facilitate flexibility of use as much as possible, enabling changes in the distribution of spaces through minor modifications.

3.10. Consideration of project buildings as repositories of cultural assets and instruments for their conservation across entire project scope

In this regard, the project must give due consideration to the following:

- Optimisation of existing building characteristics.
- Stringent control of climatic conditions within the building, especially in areas housing collections. Relative humidity, temperature, and air quality must remain constant in keeping with established requirements in this regard. To achieve this, a study of the building's thermal performance is required to enable the adequate design of climate control systems. These shall not interfere with building's historical and aesthetic values.
- Lighting must also be strictly controlled to ensure that both the level and quality of illumination are suitable for the adequate conservation and display of the collections. To achieve this, the current conditions of natural lighting must be carefully studied, and light regulation systems established to enable effective control.
- Ensuring optimal security conditions for both collections and visitors/staff should also be taken into account, ensuring that the design of building structure, layout, materials, and installations will prevent and minimise risks such as theft, fire, flood, vibration, and other potential threats.

- Strict control of water infiltrations. In this regard, special care must be taken with the roof skylights and the façade of the Palau de Victòria Eugènia that is closest to the vegetation-covered slope.

3.11. Analysis, diagnosis, action plan and heritage methodology, in the Palau de Victòria Eugènia and in affected sections of the Palau Nacional

The methodology for the proposed heritage intervention must take into consideration the physical structure of the buildings and their artistic, technical, and structural history.

The criteria employed in restoration must ensure that this intervention is conducted with care to preserve the building and prevent future pathologies. Hence, the task of analysis and diagnosis is crucial for identifying the causes of degradation and preventing future issues.

- The criteria for the actions proposed at the Palau Nacional must comply with Legislative Decree 1/2002, the Law on Heritage of the Government of Catalonia and other applicable regulations.

- The actions proposed at the Palau de Victòria Eugènia must adhere to municipal regulations regarding cultural heritage sites (*Béns d'Interès Local* in Catalan) and the requirements established by the Barcelona City Council set out in the document *Condicionants i criteris per a la renovació dels palaus firals de Montjuic, Ajuntament de Barcelona* (Conditions and criteria for the rehabilitation of the Montjuïc fair pavilions, Barcelona City Council) (Annex H).

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All of the interventions must adhere to the International Charter for the Conservation and Restoration of Monuments and Sites, 1964:

- Address the root cause of the malfunction.
- Intervention should be as minimally invasive as possible.
- Avoid altering the operational functionality of the construction systems.
- Adopt measures of reinforcement that respect the building's original construction techniques.
- Follow the original colour scheme.
- Use of minimally invasive techniques.
- Use of construction techniques that are reversible.
- Repair the affected areas and ensure seamless visual integration.
- Maintenance, cleaning, repair and restoration of original elements.
- The use of materials that are compatible with the original materials and known for their long-term durability.
- A photographic record with images showing before and after the intervention to note changes of interest.

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Four. CONSTRUCTION CRITERIA

All applicable regulations must be adhered to, including those at the European Union, state, regional, municipal, and sectoral levels. Special attention should be given to complying with the requirements of the CTE (Spanish Building Code), as well as regulations concerning fire prevention measures and accessibility.

If there are any changes to regulations or new technologies to be incorporated into the building from the moment the basic and/or executive project is drafted until the work is executed, the drafting team shall introduce these changes into the project, within the scope of their contract.

4.1. Structure

- A diagnosis of the current state of the structure's conservation will be conducted.
- The feasibility of removing or adding floor slabs will be assessed based on the developed project
- Depending on building use, construction solutions will be proposed for the structure and foundations to ensure the building's structural safety.
- During the design and structural analysis phase, as well as during interventions on the existing structure, potential demands and overloading from activities must also be considered.

- In areas designated for passage and installation of equipment, ensure that all slabs can support heavy loads (minimum 1,000 kg/m²).

4.2. Walls and roof

Walls

- The constructive solution that is adopted will have to be validated by technicians of the *Comissió Territorial de Patrimoni Cultural* (Territorial Commission for Cultural Heritage) of the City of Barcelona and Barcelona City Council. Carpentry work must fulfil conditions of nearly-zero energy consumption building (NZEB).
- Windows and doors on the ground floor of the building are to be protected by security systems such as iron bars and safety glass. This is to be developed as part of the project, whilst ensuring visual continuity between the interior and exterior space wherever possible.
- Solar and lighting control tools must also be included, in accordance with the conservation requirements of the works.

Roofs

- Roofs must be easy to maintain, including appropriate roof coating, protection, and water evacuation systems.
- They must also include thermal and acoustic insulation as per applicable regulations.

- Roofs shall have adequate waterproofing to prevent water from entering the building.
- They must be protected by required CCTV and intrusion detection systems.
- Its use for activities by museum users is to be allowed as far as possible.
- The project must incorporate solar panels as per by-laws set forth by the Barcelona City Council.

Insulation

- Building construction is to be acoustically and thermally insulated, as well as be waterproof and fireproof in accordance with the provisions of the pertinent regulations in force.
- The appropriate protective measures and precautions must be taken to prevent thermal bridges or humidity of any kind (via capillary action, condensation, infiltration, etc.).
- Special care must be taken with any leaks that may appear around skylights on the roof of the Palau de Victòria Eugènia, especially those above spaces that house the museum collection.
- Soundproofing systems shall respond to the needs of insulation, soundproofing, reverberation and any aspects that may influence Museum activities conducted in the building.

4.3. Partitions and floors

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False ceilings

- In general, false ceilings must be removable to facilitate building maintenance or be provided with easily accessible openings to allow for adequate maintenance.

- Exhibition halls or any space that could potentially serve as an exhibition space must de designed so as to ensure the stability of museum pieces requiring suspension. Appropriate suspension systems must also be provided for. This system must also be compatible with the conservation of museum pieces and is to be equipped with track lighting.

- The location of false ceilings is to be compatible with the various activities conducted in the building and the conservation of museum pieces.

Flooring

- In general, flooring is to be technical floor cover and removable. The technical floor and coating must act together to dissipate electrical current to avoid potential conductivity issues, as per fire resistance standards.

- The flooring finish must be easy to maintain and clean. In temporary exhibition areas in particular, floor covering should allow for constant assembly and removal of floors, as well as their quick repair.

- The location of flooring is to be compatible with the various activities conducted in the building and the conservation of museum pieces.

- Flooring must be highly resistant to abrasion and impacts (high-use areas).
- In areas housing cultural assets, floors must support a minimum load of 1T/m^2.

4.4. Installations

Priority is to be given to the following criteria in building design and choice with regard to installations:

- Systems and elements are to be selected with due consideration given to energy efficiency and sustainability of the building.
- For the Museum, it is important that the Palau de Victòria Eugènia earn a Class A Energy rating and the highest **LEED** or **BREEAM** sustainable certifications, the latter to be determined by property owners.
- It is also important that the Museum obtain the highest possible WELL environmental quality certification for the Palau de Victòria Eugènia.
- Due consideration should be given to operational and maintenance costs: elements having a long useful life, low energy consumption and good quality to cost ratio.
- The systems are to be versatile, and adaptable to changes in use, as well as changes in surface area and/or volume.
- They should facilitate building management and maintenance.

- In order to meet the future requirements of equipment associated with rapidly evolving technologies, system characteristics should facilitate future expansion of installation networks. Therefore, the estimated quantity of installation connections, trays, or technical areas to house them should be doubled over the initial estimate.

The following is a list of the aspects to be taken into account for each installation.

Electrical installation

- At least 40% more space is to be reserved in the electrical panels for future expansion of the installation.

- The Palau de Victòria Eugènia is to have an independent generator set to ensure electrical service to the building's priority circuits (lifts and emergency lighting, PA system, etc.) and electrical power to primary and secondary technical rooms and their equipment cooling systems. This generator set must be located inside the building; it cannot be located outside building property. The generator set is to have its own electrical control panel for this external generator set.

- The electrical supply of the Palau de Victòria Eugènia is to be powered by a transformer substation that is different to that of the Palau Nacional. If necessary, one building could serve as the power supply for the other.

- An Uninterruptible Power Supply System (UPS) is to be installed to guarantee the continuous and stable supply for essential elements such as the fire detection system and security operations system as well as for the computer equipment from the main technical room and

secondary rack rooms. In case of failure, the UPS must have another power system in reserve.

- The installation design is to ensure electrical demand for the building's general needs is met, taking into consideration exhibitions and creative workshop-laboratories.

Lighting

- A detailed study of lighting is required; its aim being to improve building management and optimise the use of electrical energy. Project characteristics in this regard shall follow those indicated by the Museum technical department during the project drafting phase.

- A specific lighting study for exhibition spaces, main entrance lobby and the auditorium is required. The system must be flexible to allow for appropriate lighting of collection anywhere within the space.

- There is to be a lighting regulation system in the main entrance lobby, exhibition rooms, educational rooms, offices and auditorium.

- Motion sensors in rooms and in autonomous operation rooms (service rooms, technical rooms, installations, etc.).

- LED technology with adjustable focus and intensity is to be used in exhibition lighting. Given the paramount importance of lighting for cultural assets, the lighting system, including the brand, model, and specific characteristics, shall be defined with the approval of the Museum.

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Climate control and ventilation

- It is essential to ensure that the climate control system for public areas operates independently from the rest of the building.

- It is essential to prevent cross-contamination between uncontrolled or odour-prone areas and those with environmental control.

- Climate control in areas housing cultural assets must be able to regulate the following environmental parameters: T (±1°C), RH (± 5%), suspended particulate matter (minimum F9 grade filtration), airborne contaminants (activated carbon filters to treat contaminants from the outside as well as those produced indoors), room pressurisation (must be higher than that found in non-controlled areas) and air renewal of room air volumes (minimum 7 renewals/h approx.).

- For offices and other enclosed spaces, a zoning system is to be implemented to allow for climate control through local thermostats. Each room is to be equipped with temperature regulators that maintain a temperature range of ± 2ºC with respect to the designated comfort temperature for each season of the year.

- In the offices, enclosed spaces and other spaces to be determined, $C0_2$ sensors are required control air quality and regulate ventilation rate in accordance with room occupancy.

- The climate control system must offer flexibility in terms of use. To accommodate potential future changes in the layout of the enclosed areas, this system must permit modifications with minimal intervention and without affecting the overall climate control system.

- The climate control air ducts must be designed to allow for interior inspection and cleaning.

- The AHUs of the climate control system must include multiple fans to ensure continued operation in the event of fan failure.

Plumbing and domestic hot water (DHW)

- Priority should be given to domestic hot water produced by efficient and sustainable systems.

- The sanitary fixtures are to be wall-mounted (to avoid corners and facilitate cleaning).

- Domestic hot water will be provided only in the locker room area and the kitchenette.

- Toilet equipment, including soap dispensers, electric hand dryers, sanitary waste bins, and key-operated toilet paper dispensers, should be integrated into the design of the surfaces.

- The sanitary and water drainage network must be designed to prevent odour issues, avoid clogging, and facilitate internal cleaning**.**

Telecommunications

- The entire Museum, including both buildings and their connection, must be equipped with a radio frequency communication system for security, surveillance, maintenance, and cleaning staff.

- The project must include a telecommunications network installation in accordance with the requirements outlined in the *"Instrucció Tècnica per a l'elaboració de l'àmbit de les telecomunicacions en projectes*

d'oficina de la Generalitat de Catalunya" (Government of Catalonia Telecommunications Guide for Offices) (see Annex F).

- The entire building must be equipped with an ample number of Ethernet sockets to support both the building installations (CCTV cameras, control sensors, workstations, repeaters, and Wi-Fi signal amplifiers) as well as the Museum's operational needs. Data transmission will be conducted using fibre optic cable, with a maximum of 100 meters allowed for copper cabling. The transmission speed will be specified by the Museum's ICT department.

- Additionally, given the integration of new technologies in the museum field, the network must be designed with ample capacity to accommodate the requirements outlined in the project. Additionally, as previously mentioned, the design should include provisions for expanding the network and accommodating any future changes in needs.

4.5. Security

All preventive measures should be prioritised over direct intervention.

The project's security conditions must be specified to ensure compliance with the necessary regulations, indicating said compliance.

All intrusion detection, CCTV, and fire suppression systems must be compatible with the systems currently in place at the Palau Nacional.

Prevention of intrusion and acts of vandalism against museum collection

- Provision must be made for the installation of security measures throughout the building (Palau de Victòria Eugènia) to prevent access

by unauthorised persons. This protection must be automatically connected to an alarm centre.

- Access areas must be equipped with cameras for video surveillance, image capture, transmission, viewing, and recording. Intrusion control panels, public address systems, intercoms, and other related equipment must also be available.

- Intrusion detection systems must be installed in adjacent openings or spaces.

- Private areas housing museum pieces are to be secured with high-security closures and controlled access points.

Fire prevention and suppression systems

- The building must be equipped with fire detectors for smoke and other combustion products, which shall all be connected to a central fire alarm system. The system must automatically respond to the presence of smoke. Areas where installations are housed must be equipped with heat detection devices.

- Fire suppression systems must be compatible with the conservation of cultural heritage and must be approved by the Museum's Department of Restoration and Preventive Conservation.

- The highest-level fire safety measures must be put in place, especially in areas where museum pieces are received and in intervention rooms containing flammable materials.

- In public areas, protection measures must be stringent yet seamlessly integrated with the architecture to preserve visitors' experience of the exhibits.
- The fire prevention and suppression system at the Palau de Victòria Eugènia and the structure connecting the two buildings must be linked to existing system at the Palau Nacional.

Five. DOCUMENTATION TO BE SUBMITTED

A) During the tender process (STAGE 1)

The documentation to be submitted is detailed in the Schedule of Specific Administrative Clauses (SSAC) for the tender.

B) During the project's drafting phase

Once the project is awarded to the winning team, they must submit the documentation related to the Project Verification Document prepared by the College of Architects of Catalonia, adhering to its document index.

For the drafting of any projects awarded subsequently, the standards outlined in the BIM Guide and BIM Handbook from the Government of Catalonia (Annexes D and E, respectively) should be used.

Six. SUBMISSION DEADLINES

The Museum will oversee the project’s development through regular meetings with the team awarded this commission. The frequency of these

meetings is to be determined in consultation with the team responsible for drafting the project and will depend on the state of project development.

The deadlines for project drafting and works management are set forth in the SSAC.

Seven. GRAPHIC DOCUMENTATION

A) Plans of existing buildings

The plans for the existing buildings, namely Palau de Victòria Eugènia and the Palau Nacional can be found in Annex A "Functional plan of the new National Museum of Art of Catalonia".

However, attached below are the ground floors of the 2 buildings:

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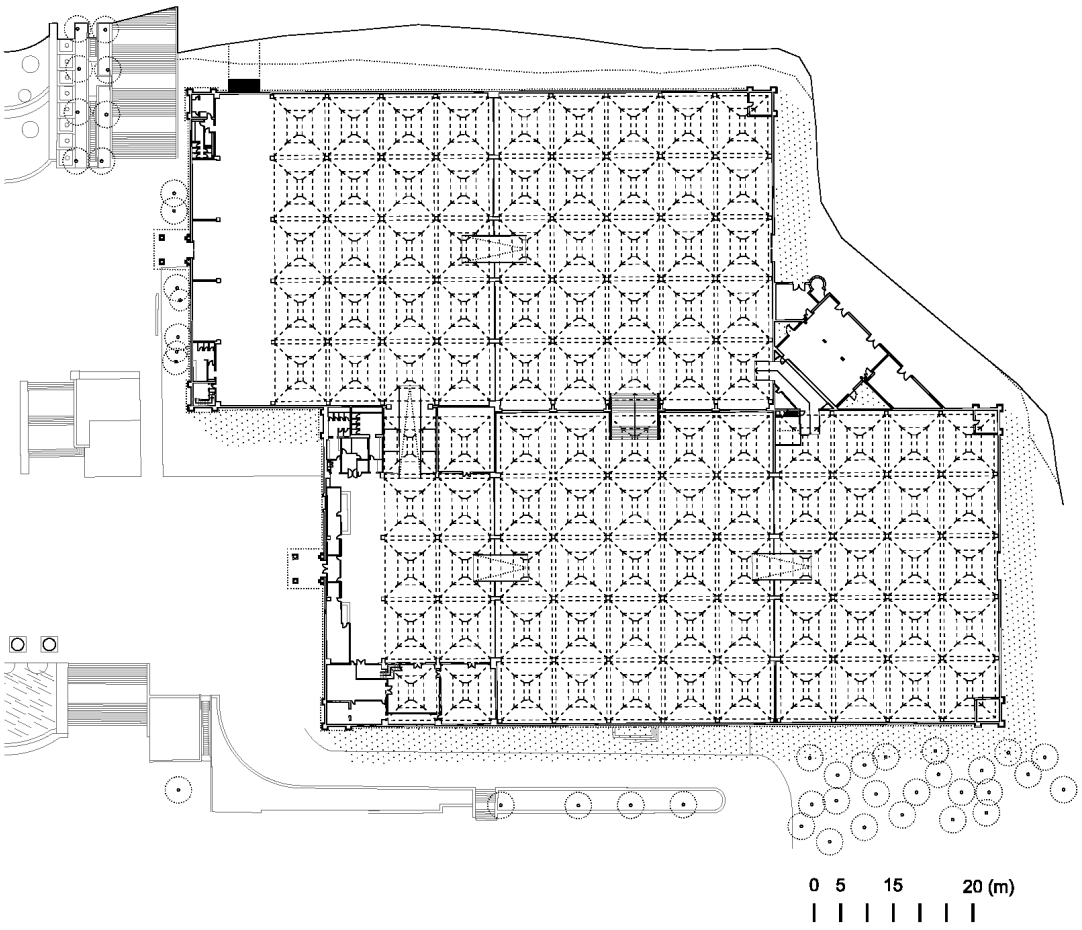
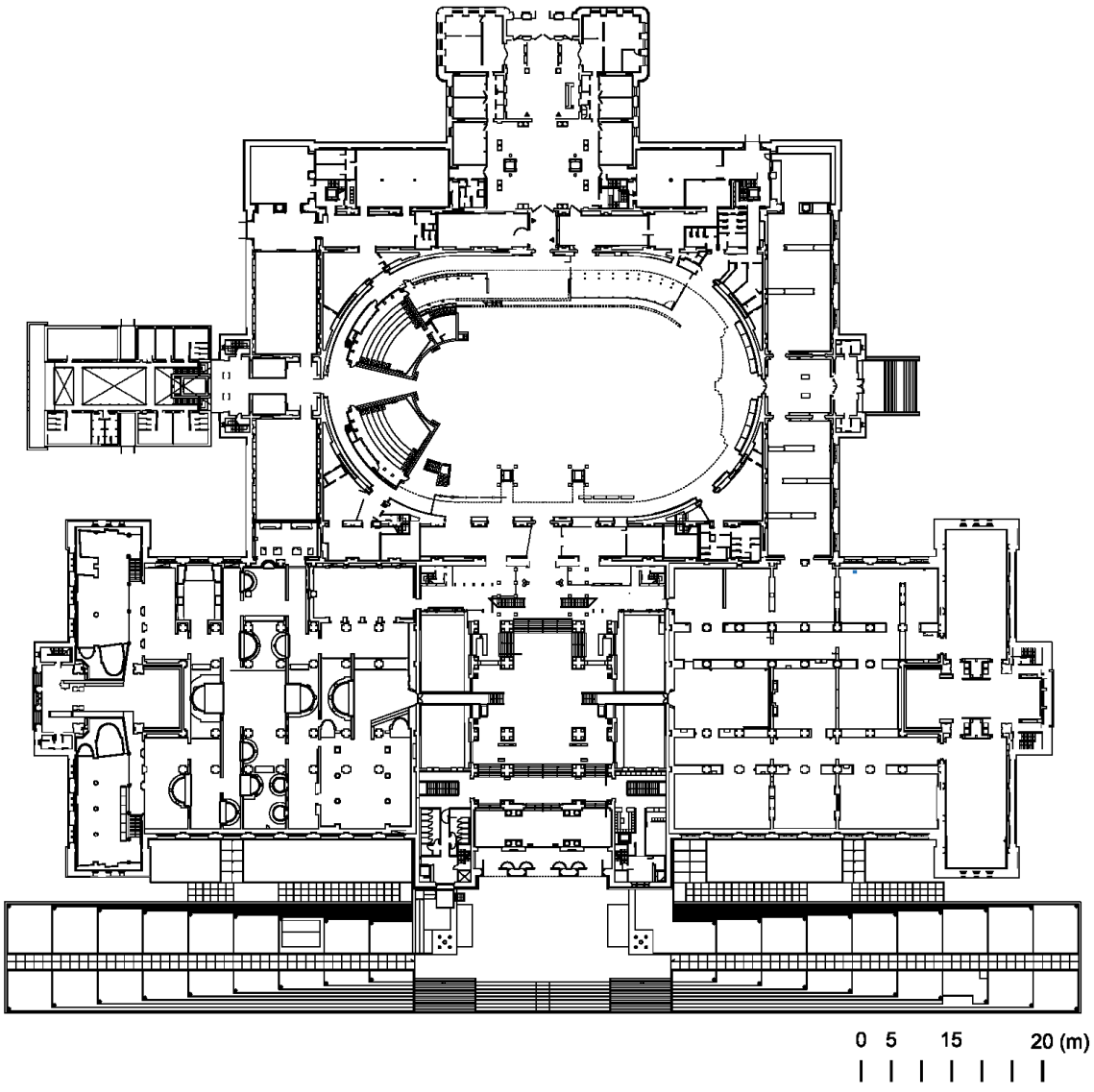
Palau de Victòria Eugènia



MUSEU NACIONAL D'ART DE CATALUNYA

Palau Nacional



MUSEU NACIONAL D'ART DE CATALUNYA

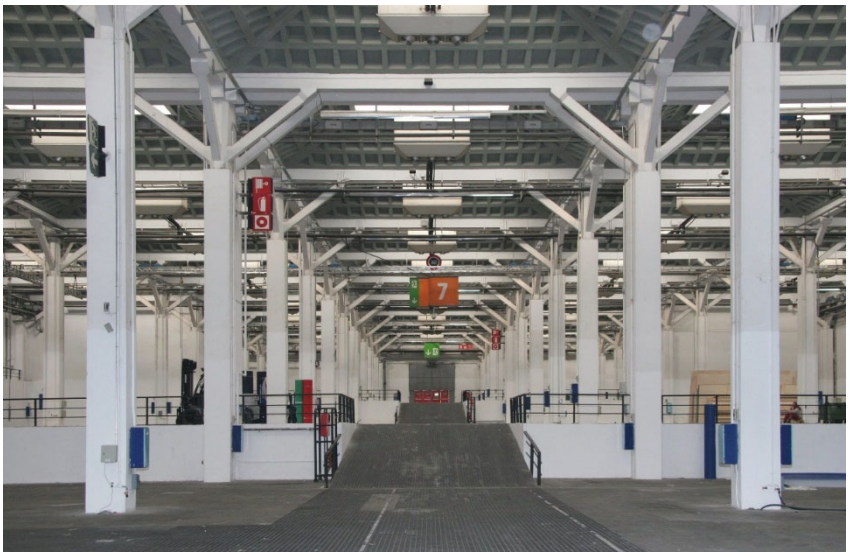
B) Photographs of existing buildings

Palau de Victòria Eugènia

Side facing Plaza de Josep Puig i Cadafalch

Roof and towers

Roof and towers



Interior

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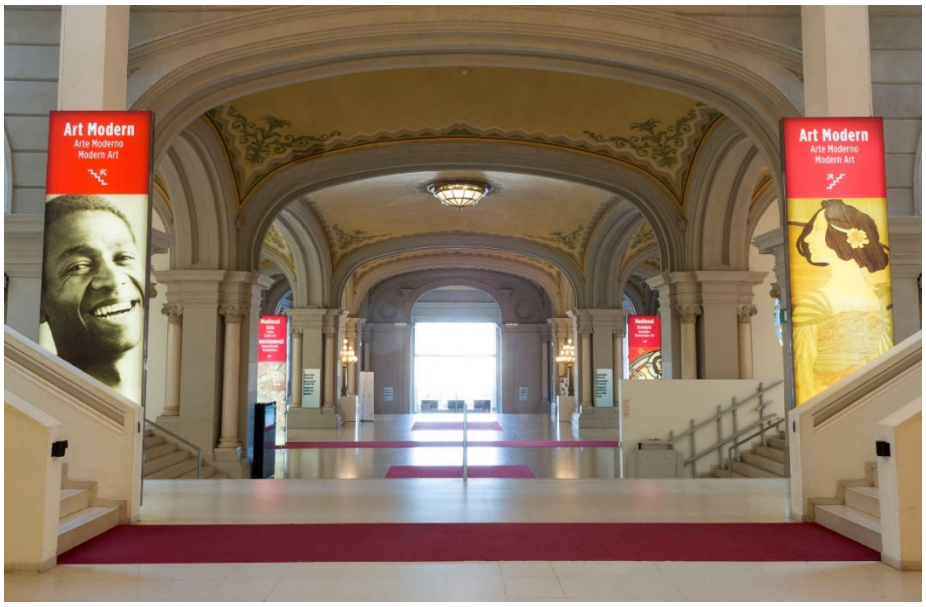
Palau Nacional

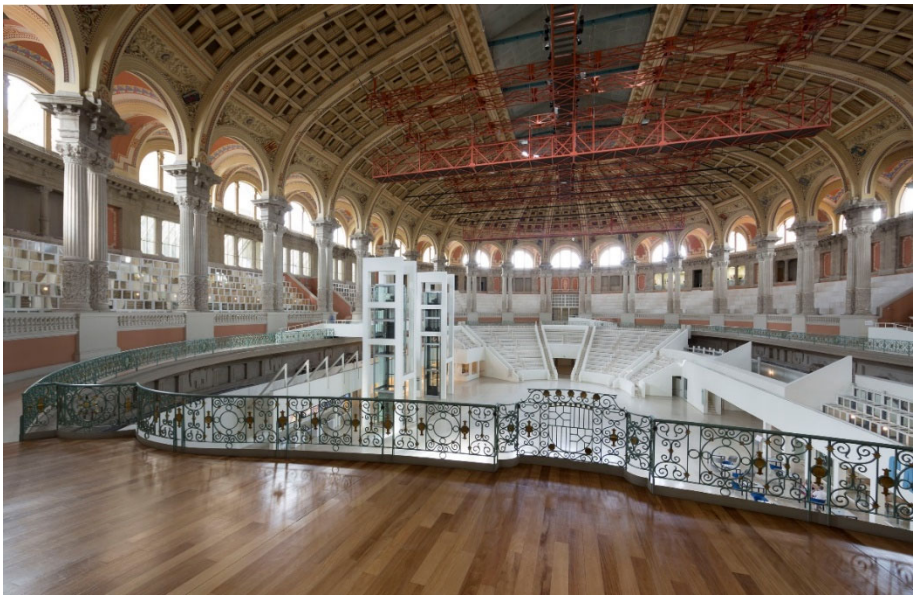
Main entrance and waterfalls

Deck and outdoor café



Main lobby

Library



Oval Room

Barcelona, on the date of electronic signature.

Josep Desquens
Contracting authority
Administrator
Museu Nacional d'Art de Catalunya

MUSEU NACIONAL D'ART DE CATALUNYA

ANNEXES. TECHNICAL DOCUMENTATION INCLUDED

The following technical documentation is provided to tender participants in the attached annexes:

A. Functional plan new Museu Nacional d'Art de Catalunya.

B. Extract from the Structural Report for the Palau de Victòria Eugènia, 2014.

C. Extract from the report on the state of the surrounding area, façades, roof and interior of Palau de Victòria Eugènia, 2014.

D. BIM Guide from the Government of Catalonia.

E. BIM Handbook from the Government of Catalonia.

F. *Instrucció Tècnica per a l'elaboració de l'àmbit de les telecomunicacions en projectes d'oficina de la Generalitat de Catalunya* (Government of Catalonia Telecommunications Guide for Offices).

G. *Instrucció 1/2023 sobre la implantació d'energies renovables en béns culturals d'interès nacional* (Instruction 1/2023 on the implementation of renewable energies in cultural assets of national interest, BCIN in Catalan).

H. *Condicionants i criteris per a la renovació dels palaus firals de Montjuïc, Ajuntament de Barcelona* (Conditions and criteria for the rehabilitation of the Montjuïc fair pavilions, Barcelona City Council).