

TECHNICAL INSTRUCTIONS FOR THE APPLICATION OF SUSTAINABILITY CRITERIA IN PUBLIC WORKS PROJECTS



AREAS OF APPLICATION AND SCOPE



DRAFTING
URBANISATION OR
INFRASTRUCTURE
PROJECTS



DRAFTING BUILDING, NEW-BUILD,
REDEVELOPMENT AND RESTORATION
PROJECTS



IMPLEMENTING
URBANISATION OR
BUILDING PROJECTS

SUSTAINABILITY ASPECTS

Energy and environmental self-sufficiency
(water, urban green, biodiversity, materials and waste)



Mayoral Decree for
Greening Public Works



Green and
Biodiversity Plan



Wood from
sustainable forestry



Circular-economy
principles and
materials with
minimum impact



Energy certificates for
buildings: minimum
energy rating B



Calculation of the
total cost of
ownership



Specific energy-
efficiency, comfort and
maintenance criteria



TECHNICAL INSTRUCTIONS FOR THE APPLICATION OF SUSTAINABILITY CRITERIA IN PUBLIC WORKS PROJECTS

In accordance with the lines of action set out in the 2012-2022 Citizen Commitment to Sustainability, the Decree for Greening Public Works, the Policy Decree on Responsible Procurement of Timber from Sustainable Forests, the 2024 Barcelona Energy Self-Sufficiency Plan, the Plan for Improving Air Quality in Barcelona, the 2020 Green Infrastructure and Biodiversity Plan, Barcelona's environmental regulations and other related plans, such as the Energy Self-Sufficiency Plan for Municipal Buildings, Barcelona City Council is working towards minimising the environmental impact arising from municipal public works and striving for energy self-sufficiency and environmental excellence in its public-area and building projects.

These technical instructions are a response to the 2013 Government Measure for Responsible Public Procurement using Social and Environmental Criteria and the Mayoral Decree on Responsible Public Procurement using Social and Environmental Criteria of 20 November 2013, which provides for the publication of technical instructions that define specific environmental criteria that must be applied in the purchasing and contracting of groups of products and services that have been defined as priorities, which include public works.



1 SUBJECT MATTER

These technical instructions aim to define, in accordance with the Mayoral Decree on Responsible Public Procurement using Social and Environmental Criteria, the criteria for environmental clauses for drawing up architectural, public-area and infrastructure public works projects and the execution of that work by various municipal operators.

To achieve this objective, these instructions:

- a. Classify the main types of contracts related to projects and works
- b. Defines the priorities to be considered in their procurement
- c. Establish the main areas where the environmental criteria for each type are to be applied and define the environmental criteria that must be applied
- d. Establish the monitoring system

2 AREA OF APPLICATION

2.1 Subject area

In accordance with the Mayoral Decree on Responsible Public Procurement using Social and Environmental Criteria, these instructions must be complied with in any public sector contract signed by Barcelona City Council and dependent organisations with the power to adjudicate (contracting authorities), whose contractual subject matter is outlined in Section 3, “Scope”.

2.2 Inclusion in procurement documents

All contracting bodies must comply with these instructions, and must guarantee, in all cases and according to the type of contract, the corresponding environmental criteria are applied.

2.3 Exceptions and justification report

In accordance with the Mayoral Decree on Responsible Public Procurement using Social and Environmental Criteria, the competent contracting bodies or those responsible for contracting may consider that the contract’s characteristics are not suitable for the inclusion of some or all of the environmental clauses set out in these instructions. In these cases, the competent contracting body must duly justify this in the procurement report, in accordance with the points set out in Section 4.2.

3 SCOPE

These instructions establish specific criteria for the following types of contract:

- Drawing up building projects, including new-build, renovation and restoration
- Drawing up urban development and infrastructure projects (projects involving work in public areas, including urban development, remodelling and maintenance)
- In consequence of the above, the carrying out of building and urban development work

Barcelona City Council and its dependent organisations with the power to adjudicate must also ensure that the criteria defined in these instructions are applied when agreements are established with private operators for carrying out urban development, maintenance and the installation of urban elements in public areas of the city. They must ensure that they are duly included in the project and in the work’s reception protocols.



4 PRIORITIES FOR PUBLIC WORKS

4.1 Priorities

In accordance with the various environmental protection commitments acquired by Barcelona City Council, the priorities for determining the environmental criteria for drawing up projects, carrying out work and maintenance are as follows:

- For all contracts: application of the Mayoral Decree on Greening Public Works, the timber instructions and general environmental and energy self-sufficiency criteria.
- In the case of drawing up urban development and infrastructure projects: the inclusion of environmental criteria concerning urban elements, hydrological self-sufficiency, biodiversity and ICT features.
- In the case of drawing up building projects: the inclusion of detailed criteria related to maximising energy, hydrological and environmental self-sufficiency; criteria concerned with biodiversity and other environmental excellence standards.
- In the case of executing the work: establishing specific criteria for the execution of building work related to energy efficiency, comfort and maintenance.

4.2 Justification report

Should the the corresponding service department or, where appropriate, the competent contracting body, considers that these priorities, specific requirements or environmental criteria to be inapplicable, or where the contract itself is inappropriate for the application of these instructions, they must indicate and detail their reasons for this in a justification report, stating, as a minimum:

- The special requirements and characteristics of the works project being contracted.
- A reasoned justification explaining the infeasibility of balancing these special requirements with the environmental criteria established in these instructions.

This report will be made available to those responsible for monitoring these instructions, when required.

5 ENVIRONMENTAL CRITERIA FOR THE PROCUREMENT OF PUBLIC WORKS PROJECTS

The following table includes the different sustainability features for each of the indicated contract types.

Drawing up urban development projects

Applying the Decree on Greening Public Works

General energy and environmental self-sufficiency criteria

Applying the timber instructions

Criteria for maximising energy self-sufficiency

Criteria related to urban elements

Criteria concerning the increase in green spaces and biodiversity

Criteria concerning hydrological self-sufficiency

Criteria favouring the circular economy

Inclusion of ICT systems and technologies





Drawing up building projects

Applying the Decree on Greening Public Works

General energy and environmental self-sufficiency criteria

Applying the timber instructions

Criteria for maximising energy self-sufficiency

Minimum energy efficiency certification

Calculation of total cost of ownership

Additional energy efficiency criteria for the renovation/restoration of existing buildings

Criteria concerning the increase in green spaces and biodiversity

Criteria concerning hydrological self-sufficiency

Criteria favouring the circular economy

Other standards of environmental excellence

Execution of urban development or building work

Applying the Decree on Greening Public Works

General energy and environmental self-sufficiency criteria

Applying the timber instructions

Barcelona Public Works Quality Manual

Building work: criteria for improving quality control and guarantees

Building work: criteria for the protection of protected animal species

The environmental criteria that must be included in the above-mentioned procurement documents are detailed below.

In the following articles, it is indicated when the criteria must be included as technical specifications or may be included as award criteria. In this latter case, the contracting body must determine the score given for compliance with each award criterion and the corresponding evaluation formula.

5.1 Obligatory criteria for all contracts

The contracting body will establish the following obligatory requirements for the procurement of drawing up projects and the execution of the work:

I- Applying the Decree on Greening Public Works

The Mayoral Decree on Greening Public Works is applicable, which specifies that an environmental report for the project phase and a Greening Plan for the work execution phase must be produced. In all cases, this must be validated before the act of revising the work and for its compliance during the execution of that work, for all public works projects,





provided that the estimated budget for the work included in the project is equal to or greater than €450,000 and that it is not subject to Environmental Impact Evaluation, in line with current legislation.

In order to satisfy the basic requirements that all public works contracted by Barcelona City Council must comply with, the following greening materials and guidelines for public works will be used:

- Basic manual for producing an environmental report associated with Barcelona City Council public works projects
- Greening guidelines for executing public works
- Greening control guide for executing public works

II- General energy and environmental self-sufficiency criteria

The contracting body will incorporate general energy and environmental self-sufficiency criteria in all procurement documents for drawing up and executing public works projects. These include:

- energy solutions that work towards self-sufficiency and reduce installed power, preferably using passive solutions and energy generation using renewable sources at a local level, in order to achieve zero emissions;
- efficient management of hydrological resources, taking into consideration the entire water cycle, from abstraction to evacuation (drinking water network, groundwater, rainwater and use of grey water);
- the use of construction materials with the lowest possible impact, throughout their life cycle;
- fostering urban green space connectivity (urban green corridors), renaturalisation of the city and greater biodiversity for urban green spaces on every scale;
- the incorporation of smart technology and systems for equipment, installations and possible micro networks (energy, water, mobility - electric vehicles - and other resources)

ces) which favour the efficient use of resources;

- the incorporation of waste prevention, reutilisation, recycling and collection solutions based on circular economy principles;

General energy and environmental self-sufficiency criteria are detailed as specific criteria adapted to each specification, according to the priorities defined in Sections 5.2, 5.3 and 5.4.

III- Applying the timber instructions

The Technical Instructions for the Application of Sustainability Criteria to Timber must be applied. These establish the obligation of acquiring timber with a sustainable forest management certification; the promotion of the superior use of timber as a sustainable and renewable construction material; the recommendation of using a greater diversity of indigenous timber species, and the requirement of having both guarantees of sustainable forest management and, in the case of tropical timber, guarantees of legality.

5.2 Criteria for drawing up public area and infrastructure projects

I- Criteria for maximising energy self-sufficiency

In the procurement documents for drawing up urban development, redevelopment and infrastructure projects, the contracting body must establish criteria that allow the maximum energy self-sufficiency to be achieved. These include:

- minimising energy consumption, applying energy-efficiency criteria to lighting systems and other electrical systems (LED lighting systems, regulating systems and other similar measures).
- maximising own-energy production, based on a study concerning the use of local energy sources, including renewable and residual (hot and cold) energy to cover existing and new energy demands; the viability of seasonal and electric thermal storage, and the design of support structures for installations that produce renewable energy (urban furniture).



- calculate the total cost of ownership (TCO), taking into account, as a minimum, the cost of investment in equipment and materials, maintenance costs and annual exploitation costs.

II- Criteria concerning urban elements

The contracting body must establish in the procurement documents the requirement of complying with the Mayoral Instructions concerning Barcelona's urban elements, especially as regards the social and environmental criteria defined in Section 5.d, on compliance with the International Labour Organisation's regulations, the Ethical Commitment of the company and the suppliers' sustainable management, as well as the ecological footprint of urban elements, energy savings throughout the production process and the useful lifetime of the element, the minimisation of pollutant emissions and the degree to which the materials used are recyclable.

III- Criteria concerning the increase in green spaces and biodiversity

The procurement documents for drawing up urban development projects must include the priorities of the 2020 Barcelona Green Infrastructure and Biodiversity Plan, especially:

- the connectivity of green spaces (development of the urban green corridor network)
- diversification of tree species and their selection based on the environmental advantages that they offer (such as an ability to retain dust particles and other pollutants)
- increasing the city's biomass
- permeabilisation of soil in public areas
- the application of control measures on exotic and invasive plant species
- enriching existing green spaces and improving their function as habitats
- supplying street trees with a larger volume and better quality soil

IV- Criteria concerning hydrological self-sufficiency

The contracting body must establish environmental criteria regarding hydrological self-sufficiency in the procurement documents for drawing up urban development projects.

These may include:

- the use of sustainable urban drainage systems (SUDS)
- the use of groundwater
- optimising watering systems in green areas and
- selecting species with lower hydrological needs

V- Criteria favouring the circular economy

The contracting body may establish environmental criteria regarding construction materials and products in the procurement documents for drawing up urban development projects. These may include:

- the use of aggregates and other construction materials that include a percentage of recycled materials
- the use of photocatalytic building materials to lower the concentration of atmospheric NOx gases
- the use of construction materials, such as materials used in road markings, that comply with the criteria established in a Type I ecolabel.
- the exclusion of certain surface treatments and plant protection treatments that have an elevated impact on the environment or health.
- the grey energy value of construction materials included in ITeC's BEDEC database.
- Criteria concerning durability and maintenance, including their selection according to their use, appropriate size and their possibilities for reuse.



VI- Criteria concerning the incorporation of ICT systems and technologies

Procurement documents for drawing up public works projects for the city's public places must include roll-out requirements in accordance with Barcelona City Council's ICT infrastructure implementation model for public areas, as defined in the Government Measure: ICT Master Plan: Roll-out of Smart Infrastructures in Public Areas (PDTIC) and its appendices. Specifically, the requirements concerning the end elements and devices related to sustainability must be included in the procurement documents, including noise pollution, atmospheric pollution, climate, water composition, mobility flows and other environmental data that is considered to be a priority for each specific project.

5.3 Criteria for drawing up building projects

The contracting body must establish the following obligatory environmental criteria for building projects:

I- Criteria for maximising energy self-sufficiency

In promotions of newly-build municipally owned buildings, alternatives must be created that favour the maximum possible energy self-sufficiency and economic, energy and management efficiency in the use phase, in order to achieve the nZEB objective (nearly Zero Energy Buildings). For this reason, the contracting body must establish the following functional criteria for every procurement document, based on maximum self-sufficiency and performance during a building's entire life cycle:

Application of criteria and passive systems (reduction of demand)

In all procurement documents for drawing up building projects, the contracting body must include the prioritisation of building solutions that tend towards reducing the air conditioning (heat and cooling) as far as possible, through appropriate design and bioclimatic parameters (passive solutions). The objective is to minimise support in winter and summer by means of active solutions and to optimise energy management in the use and maintenance phase of the buildings.

Application of basic energy-efficiency criteria (reduced consumption)

The contracting body will establish the basic energy-efficiency criteria that must be included in each procurement document or project, based on the Basic Guide for Energy Efficiency in Municipal Buildings for drawing up projects. These will include, as a minimum:

- Incorporation of lighting systems control (sectoralisation).
- Monitoring and display of energy consumption and own production (for building projects with a built surface of over 3,000 m² or an energy demand of over 150,000 kWh/year, as defined in the Basic Energy Monitoring Protocol).

The contracting body may establish other obligatory energy-efficiency clauses that must be taken into consideration in specific situations, such as doors and windows, electric lighting, HVAC installations, water consumption installations and renewable energy installations.

Maximising energy self-production

In all procurement documents for the drawing up of building projects, the contracting body will include the obligation of evaluating the building's potential for energy self-production (photovoltaic, solar, thermal, mini wind turbines and similar items) with the aim of achieving the maximum amount of self-produced energy.

Maximum energy self-sufficiency

In all procurement documents or projects, the contracting body will establish the requirement of carrying out a study, from a global perspective, on minimising the consumption of primary energy and the emission of greenhouse gases, without favouring any particular technology, in which it will request from the project team an analysis of alternatives with the corresponding justification for the chosen alternative.

II- Minimum energy certification

In all procurement documents for the drawing up of building projects, the contracting body will establish a minimum energy category based on the certification regulations for newly constructed buildings, which under no circumstances will be below category B.



III- Calculating the total cost of ownership

For all building projects with a built surface of over 3,000 m² or an energy demand of over 150,000 kWh/year, the total cost of ownership (TCO) will be calculated for the climate control and lighting installations, taking into account, as a minimum, the investment costs for equipment and materials (such as boilers, heat pumps, sensors, the sectoralisation of installations, etc.), maintenance costs and annual exploitation costs.

IV- Additional energy-efficiency criteria for the renovation/restoration of existing buildings

In the case of renovation or restoration projects for municipal buildings, the procurement documents will also establish energy-saving measures that provide solutions for each energy problem, in accordance with the priorities defined in the Plan for Energy Improvements in Municipal Buildings. The measures to be taken into consideration in the definition of the technical project are:

- Energy restoration of the thermal coverings of existing buildings.
- Improving the energy-efficiency of interior lighting in existing buildings.
- Improving the energy efficiency of thermal installations in existing buildings: optimising demand.
- Improving energy efficiency in existing lift installations.

V - Criteria regarding an increase in green spaces and biodiversity

The contracting body will consider the inclusion of technical specifications relating to an increase in green spaces and biodiversity in the drawing up of building projects, mainly for projects concerning facilities or buildings for administrative use. Possible measures for increasing green spaces and biodiversity are the construction of green roofs and vertical gardens on facades, side walls, patios or interiors, taking into account the specifications of the Government Measure for Promoting Living Terraces and Green Roofs in Barcelona.

The inclusion of a reference to the Generalitat's document Criteria for the Compatibility of Protected Fauna and Buildings in the procurement documents will also be considered.

VI - Criteria for hydrological self-sufficiency

The contracting body must establish in the procurement documents the maximum levels of water consumption for all water installations, including toilet flushing, showers, hand washing and other similar items. The maximum levels will be established in accordance with the current specifications in the Catalan ecolabel, in the category "Products and systems that favour water savings". In the case of urinals, the contracting body will establish the requirement of installing waterless urinals.

The contracting body will evaluate the possibilities of using local water resources and in situ treatment (groundwater, rainwater or grey water) and will include in its specifications the criteria that allow the greatest hydrological self-sufficiency, or the requirement of carrying out a study, from a global perspective, on minimising water consumption and optimising its quality for each specific use, requesting from the planner an analysis with the corresponding justification for the chosen option.

VII - Criteria favouring the circular economy

In procurement documents for drawing up building projects, the contracting body may establish a list of exclusion criteria for construction materials, such as materials that contain heavy metals, materials classified as toxic, carcinogenic, mutagenic, damaging to the ozone layer, or very toxic to aquatic organisms.

The contracting body may also evaluate the construction materials' positive environmental characteristics or may establish the requirement of compliance with environmental criteria for certain materials or families of products, such as:

- The percentage of materials from renewable resources
- The percentage of materials made from recycled materials
- The materials that comply with the criteria of an official ecolabel (Type I) or which provide environmental information on its life cycle (EPD, Environmental Product Declaration; LCA, Life Cycle Analysis) (types II and III)
- The grey-energy value of construction materials included in ITec's BEDEC database



The contracting body may include in the procurement documents the evaluation of improvement proposals relating to durability and cost reduction for later maintenance of systems and materials.

VIII - Criteria related to other environmental-excellence standards

The contracting body may optionally include criteria related to environmental-excellence standards, such as improvements and proposals with the VERDE certification of the Green Building Council Spain, or other equivalent standards (LEED, BREEAM, etc.).

5.4 Specific criteria for executing public works

I - Application of the Public Works Quality Manual

The contracting body will establish in the procurement documents the need for compliance with the Decree on the Barcelona Public Works Quality Manual, implementation and effects on public areas and their appendices, especially preventive and corrective measures that must be applied during the execution of public works in order to reduce environmental impact on the area affected by this work, such as:

- Atmospheric emissions: smoke, gases, dust, noise and vibrational pollution
- Generated waste and cleaning up
- Effects on groundwater
- Protection of green areas
- Onsite soundings

II - Specific criteria for the execution of building work

Beyond the obligatory-compliance criteria defined in section 5.1., the following environmental criteria may also be considered in the building work's execution phase:

Criteria related to improvements in quality control and guarantees

The contracting body may optionally include the following environmental criteria as an environmental improvement of the bid in the work execution procurement documents (for housing, facilities and administrative buildings):

- Improvements in quality control, energy efficiency and energy savings of doors and windows, by testing the thermal transmittance (thermography), beyond that which is established in the quality-control programme, with the production of the corresponding report.
- Improvements in the quality and comfort control of doors and windows by testing the levels of air infiltration (blower-door test), beyond that which is established perceptively in the quality-control programme, with the production of the corresponding report.
- Improvements relating to the guarantee of the installations, through increasing the established guarantee period. Carried out by the successful tenderer, who is responsible for normal, preventive and corrective maintenance of the renewable or high-efficiency energy self-production installations (thermal solar, photovoltaic solar, geothermal and other renewable or high-efficiency energy systems).

Criteria related to the protection of protected fauna species

The contracting body will consider the inclusion of a reference to the Generalitat's document Criteria for the Compatibility of Protected Fauna with Buildings" in the procurement documents.

6 MONITORING SYSTEM

In accordance with the Mayoral Decree on Responsible Public Procurement using Social and Environmental Criteria, the person responsible for the contract will ensure that the awarded company complies with and executes the social and environmental clauses set





out in the contract. While those managing the + Sustainable City Council Programme do not have an automated monitoring system for the greening of the contract, the person responsible for the contract will use the email ajuntamentsostenible@bcn.cat to send the following information:

- Check list for applying environmental criteria in public works projects

Information forms for complying with these instructions are attached in Appendix I.

Those managing the + Sustainable City Council Programme may request additional information from the contracting body, including the justification reports detailed in section 4.2.

7 TRANSITIONAL REGULATIONS / COMING INTO FORCE

These instructions will come into force 6 months after their publication.

These instructions are not applicable to call for tenders that are already open or concluded, nor to approved procurement documents or to call for tenders pending resolution that are dated prior to these instructions coming into force.



APPENDIX I CHECKLIST FOR THE APPLICATION OF SUSTAINABILITY CRITERIA IN PUBLIC WORKS PROJECTS

A. Inclusion of environmental criteria in the procurement documents for drawing up public area and infrastructure projects

Indicate if the following criteria have been taken into consideration when drawing up the contract specifications:

5.1	Drawing up urban development projects	Yes	No	Not applicable
5.1.I	Compliance with the Decree on Greening Public Works			
5.1.II	Inclusion of general criteria for energy and environmental self-sufficiency			
5.1.III	Compliance with the Technical Instructions for the Application of Sustainability Criteria to Timber			
	Other:			
5.2.I	Criteria concerning maximum energy self-sufficiency			
5.2.I	Minimisation of energy consumption			
5.2.I	Maximisation of energy self-production			
5.2.I	Calculation of the total cost of ownership (TCO)			
	Other:			
5.2.II	Criteria concerning urban elements			
5.2.II	Inclusion of environmental and social sustainability criteria defined in the Mayor's Office Instructions on Urban Elements in Barcelona			
	Other:			



5.2.III	Criteria concerning biodiversity according to the 2020 Barcelona Green Infrastructure and Biodiversity Plan	Sí	No	No escau
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5.2.III	Green space connectivity (development of the urban green corridor network)
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5.2.III	Diversification of tree species and their selection according to the environmental services they offer
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5.2.III	Increasing the city's biomass
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5.2.III	Permeabilisation of soil in public areas
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5.2.III	Control measures for exotic and invasive flora
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5.2.III	Enriching existing green areas and fostering their function as habitats
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5.2.III	Increasing the volume and quality of soil for street trees
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	Other:
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5.2.IV	Criteria concerning hydrological self-sufficiency
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5.2.IV	Use of sustainable urban drainage techniques (TEDUS)
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5.2.IV	Use of groundwater
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5.2.IV	Optimisation of watering systems in green areas
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5.2.IV	Selection of species with low hydrological needs
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	Other:
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5.2.V	Criteria favouring the circular economy (construction materials and products)	Sí	No	No escau
5.2.V	The use of aggregates and other construction materials that include a percentage of recycled materials			
5.2.V	Use of photocatalytic construction materials to reduce atmospheric NOx levels			
5.2.V	Use of construction materials that comply with the criteria established by one of the Type I ecolabels			
5.2.V	Exclusion of specific surface treatments and plant-protection treatments that have a high negative impact on the environment or health			
5.2.V	Grey-energy values of construction materials included in ITeC's BEDEC database			
5.2.V	Criteria concerning durability and maintenance, including selections made according to use, appropriate size and possibilities for reuse			
	Other:			
5.2.VI	Criteria concerning the inclusion of ICT systems and technologies - Roll-out of Smart Infrastructures in Public Areas (PDTIC government measure)			
5.2.VI	End items and devices related to: noise pollution, atmospheric pollution, climate			
5.2.VI	End items and devices related to water composition			
5.2.VI	End items and devices related to mobility flows			
5.2.VI	End items and devices related to other environmental data			



B- Inclusion of environmental criteria in the procurement documents for drawing up building projects

Indicate if the following criteria have been taken into consideration when drawing up the contract specifications:

5.1	Drawing up building projects	Sí	No	No escau
5.1.I	Compliance with the Decree on Greening Public Works			
5.1.II	Inclusion of general criteria for energy and environmental self-sufficiency			
5.1.III	Compliance with the Technical Instructions for the Application of Sustainability Criteria to Timber			
5.3.	Criteria concerning maximum energy self-sufficiency: new-build buildings			
5.3.I	Prioritisation of building solutions that tend to reduce the demand for air-conditioning (heating and cooling) as far as possible, through adequate design and bioclimatic parameters (passive solutions)			
5.3.I	Basic energy-efficiency criteria: inclusion of control of lighting systems (sectoralisation)			
5.3.I	Basic energy-efficiency criteria: monitoring and display of energy consumption and self-production			
5.3.I	Maximum energy self-production: evaluation of the building's energy self-production potential			
5.3.I	Maximum energy self-sufficiency: study of alternative solutions for minimising the consumption of primary energy and emission of greenhouse gases			
5.3.II	Class B minimum energy certification			
5.3.III	Calculation of the total cost of ownership (TCO) of the air-conditioning and lighting installation project, taking into account the investment costs in equipment and materials, the maintenance costs and energy costs			
	Other energy self-sufficiency criteria:			



5.3.IV Additional energy-efficiency criteria for renovation and restoration projects on municipal buildings

Sí No No escau

5.3.IV Energy restoration of the thermal covering on existing buildings

5.3.IV Energy-efficiency improvements in interior lighting of existing buildings

5.3.IV Energy-efficiency improvements to the thermal installations of buildings: optimisation of demand

5.3.IV Energy-efficiency improvements to existing lift installations

Other:

5.3.V Criteria concerning the increase of green spaces and biodiversity

5.3.V Execution of green roofs

5.3.V Vertical gardens on facades, side walls, patios and building interiors

5.3.V Inclusion of a reference to the Generalitat document Criteria for making Protected Fauna Compatible with Buildings

Other:

5.3.VI Criteria concerning hydrological self-sufficiency

5.3.VI Maximum water-consumption values for all water installations, such as toilet flushing, showers, hand basins and similar items, in accordance with the Catalan ecolabel

5.3.VI Installation of waterless urinals

5.3.VI Criteria that allow the maximum hydrological self-sufficiency related to the possibilities of using local water resources and in situ treatment (groundwater, rainwater or grey water)



5.3.VI	Criteria concerning hydrological self-sufficiency	Sí	No	No escau
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5.3.VI	Maximum hydrological self-sufficiency: study of alternative solutions for minimising water consumption and optimising quality for each specific use
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Other:

5.3.VII	Criteria favouring the circular economy (construction materials and products)			
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5.3.VII	List of exclusion criteria for construction materials (materials containing heavy metals, materials classified as being toxic, carcinogenic, mutagenic, dangerous to the ozone layer, or very toxic for aquatic organisms)
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5.3.VII	Percentage of materials made from renewable resources, for specific materials or families of products
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5.3.VII	Percentage of materials made from recycled resources, for specific materials or families of products
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5.3.VII	Materials that comply with the criteria of one of the official Type I ecolabels, or which bear environmental information related to their life cycle (EPD, Environmental Product Declaration; LCA, Life Cycle Analysis) (types II and III) for specific materials or families of products
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5.3.VII	Grey-energy values of construction materials that are included in ITeC's BEDEC database for specific materials or families of products
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5.3.VII	Evaluation of proposals for improvements related to durability and the reduction of later maintenance costs of systems and materials
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Other:

5.3.VIII	Other environmental excellence standards			
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5.3.VIII	Inclusion of improvements and contrasted proposals with the Green Building Council Spain's VERDE certification, or other equivalent standards (LEED, BREEAM, etc.)
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Other:



5.4	Specific criteria for carrying out building work	Sí	No	No escau
5.4.I	Compliance with the Public Works Quality Manual			
5.4.II	Improvements in quality control, energy efficiency and energy savings of doors and windows, by carrying out checks on thermal transmittance (thermography)			
5.4.II	Improvements in quality control and comfort of doors and windows, by carrying out checks on draughts (blower-door test)			
5.4.II	Improvements related to the guarantee of the installations, by means of increasing the guarantee period established in the specifications, where the successful bidder carries out normal, preventive and corrective maintenance of the renewable self-production or high-efficiency installations (solar thermal, solar photovoltaic, geothermal and other renewable energy systems)			
5.4.II	Inclusion in the specifications of a reference to the Generalitat's document Criteria for the Compatibility of Protected Fauna with Buildings			
	Other:			