Decree of the Ministry of the Environment on the Content, Presentation, and Machine-Readable Data of Construction Plan Models and Special Plan Data Models

The decree of the Ministry of the Environment is intended to regulate the data content of plan models to be attached to permit applications, as well as the content of machine-readable data submitted in place of such models. In addition, it would regulate the content of information submitted from official inspections to the Built Environment Information System, as well as the format of the machine-readable data.

The decree would enter into force on 1 January 2026.

Explanatory memorandum

1. Background

1.1. Situation before the Building Act

Prior to the entry into force of the Bulding Act, the Land Use Act (132/1999, the former Land Use and Building Act *MRL)* provided for building permits and applications for building permits. The name of the permit was changed in 2025 to a construction permit, and from 1 January 2025 to 31 December 2025, construction permits were applied for in accordance with the provisions of the Land Use and Building Act (MRL). The application for a construction permit must include proof that the applicant has control over the building site, as well as the main drawings included in the construction plan, which must be certified by the building designer with their signature (MRL section 131). The construction permit application is linked to a decree of the Ministry of the Environment concerning construction plans and reports (216/2015the so-called *Main Drawing Decree*), which lays down more detailed provisions on the content and presentation of the main drawings.

As part of the entry into force of the Building Act (751/2023), the decrees concerning construction that were previously in force shall remain in force and applicable until they are separately repealed. One such decree that will remain in force is the aforementioned Main Drawing Decree.

1.2. Building Act Amendment Act

The Building Act entered into force 1.1.2025. President of the Republic Sauli Niinistö ratified the Act 21.4.2023. After the ratification of the Act, amendments to the Act were prepared as part of Petteri Orpo's Government Programme. The amendment package is commonly referred to as the "*Building Act amendment package*". The President of the Republic confirmed the amendments to the Building Act 19.12.2024 and these amendments entered into force and shall enter into force on 1.1.2025 and 1.1.2026. As part of the amendments, Parliament modified Sections 61 and 69 of the Building Act, which regulate the construction permit application and the submission of special plans. Both sections were changed in content, and the application of the previous provisions was postponed by one year, to 2026. Until the end of 2025, the

provisions of the Land Use Act would apply to the submission of construction permit applications. According to the Act, the permit application must include proof that the applicant has control over the building site, as well as the main drawings included in the construction plan (Building Act, section 136). Taking into account the nature and scope of the project, the building supervision authority may, if necessary, also require other clarifications in the application for a building permit.

In section 61 of the Building Act, the main drawings would be accompanied by a design model, the content of which consists of the three-dimensional geometry of the building and the alphanumeric data of the building. The design model refers to the Building Information Model (BIM), which may contain one or more Information Foundation Classes (IFC) files. Pursuant to the amending act, the planning model attached to the permit must be accurate to the level of general arrangement drawings and contain all the information contained in the general arrangement drawings. Changes made to the plans during the construction project are updated in the main drawings and the design model, from which the as-built and as-realised plans are submitted to the building control for the final inspection.

Built Environment Information System – Ryhti

The Built Environment Information System – Ryhti, maintained by the Finnish Environment Institute, brings together information on construction and land use at national level. A common system and way of working will streamline and clarify data management. Higher quality information helps in the planning and decision-making of a sustainable living environment. In the future, building information will be submitted to the national information system for the built environment in addition to the municipalities' own systems. It provides controlled, secure and easy-to-use access to information on land use and construction for various actors. The information system consists of two data repositories.

The Land Use Data Warehouse manages, stores and publishes land use data, such as different levels of plans, which are decided through procedures under the Land Use Act. The Building Information Repository manages, stores, and publishes the information defined in the Building Act, including plan models, other permit documents, and information related to the permit process (so-called core building data). Building information is maintained through the construction permit process.

From the data repositories, it is possible to obtain certain information required for a construction permit in a machine-readable and interoperable format, which reduces the work of both the permit applicant and the permit authority. The system broadly streamlines the work of various authorities.

1.3. Development projects

The draft decree builds on earlier development projects that laid the foundation for the digitalization of the construction sector and building supervision. The Rasti project, which concluded in 2019, produced recommendations to enable the digitalization of the built environment and the use of international standards.

Since 2020, the Ministry of the Environment has been working on the interoperability of built environment data as part of digitalization efforts in the built environment and the Ryhti project. The Act on the Management of Information in Public Administration (*Information Management Act* 906/2019, section 6, subsection 2) requires ministries to maintain and prepare general guidelines for interoperability within their respective sectors. Interoperable data for construction permits is defined in the data model of construction permit decisions (Raklu). Each type of permit has its own defined application profile.

In the Ministry of the Environment's RAVA 2 development project, the data content requirements for BIM models used in building supervision were defined. RAVA3 Pro was a development project led by the City of Helsinki and funded by the Ministry of Finance, aimed at further developing the electronic permit process in municipal building supervision and automating its processes. In this project, the information in plan models was specified with IFC-level precision and content requirements. The project involved 23 municipalities and concluded in autumn 2023. The City of Helsinki has gradually implemented the above specifications and processes in its own operations.

The Ministry of the Environment has assisted municipalities and regional councils in renewing the management of built environment information to meet the digitalization requirements of the Land Use Act, Building Act, and Act on the Information System of the Built Environment. Municipalities have developed their management of building information into an electronic and interoperable Ryhti format and to support IFC-based permitting.

2. Current situation and its assessment

The construction of a building shall be subject to a building permit. A building permit is also required for renovation and alteration works comparable to construction of a building, as well as for the extension of a building or the addition of space included in floor area. Before the entry into force of the Building Act, a permit for a measure could be applied for instead of a construction permit for certain structures and installations, such as a mast, tank, or chimney, where the resolution of the permit issue does not fully require the control normally necessary in construction.

A construction permit is applied for using a construction permit application. The application is in writing and is submitted to the building control authority. The application for a permit must include proof that the applicant has control over the building site, as well as the main drawings included in the construction plan, which must be certified by the building designer with their signature (Land Use Act section 131).

Depending on the scope of the project, a construction permit application may also be required to include, if necessary:

(1) an extract from the basic map of the area or, in the case of construction in an area covered by a local detailed plan, an extract from the local detailed plan and land registry extract and, where appropriate, the cadastral survey, if not already available to the building control authority;

(2) a report on the foundations and ground conditions at the construction site and on the required manner of foundation work and other necessary measures;

(3) an energy report;

(4) a report on the sanitary conditions and elevations of the construction site;

(5) a report by a qualified person on the condition of the building;

(6) any other evidence relevant to the decision on the building permit application.

More detailed provisions on the content and presentation of general arrangement drawings and studies are laid down in the Main Drawing Decree.

The Main Drawing Decree lays down the details of the main drawings annexed to the application for authorisation. The information is used to assess whether the plan complies with the regulations and

provisions concerning construction, as well as the requirements of good building practice. In addition, the main drawings must include information on matters that may affect the safety or health conditions of the building or building site, the position of neighbours, and the suitability of the construction for the site and its environment.

The main drawings include the site plan and the building's floor, section, and elevation drawings. Based on the information in the site plan, the conformity of the proposed construction or modified buildings with the zoning plan, their placement, and their impact on the surrounding environment are evaluated. The floor and section drawings depict the shape and spaces of the new or modified building with sufficient detail for permit processing and must include information on, for example, fire compartments and escape routes. In the elevation drawings, the building is shown according to the cardinal directions and in relation to neighbouring buildings. The drawings must indicate materials, fixtures, and the levels of the ground and roof.

The plan can be identified by the title information on the drawings. The title block also contains the designer's details. The site plan shows whether the proposed construction complies with the zoning plan or other land-use plan and the building regulations. The site plan also indicates information about the building site, the building, and the yard area both before and after the proposed construction, as well as any protection or conservation requirements.

If necessary, the site plan includes, for example, the boundaries of the building site, blocks, and streets; property identifiers; the planned and existing levels of the site's corner points; buildings to be constructed or demolished; and the building's distances from the property boundaries.

A building plan is usually prepared by an architect and may be implemented either as a model or as drawings. The main drawings may also include solutions and information prepared by other designers, for example, a structural engineer or a fire safety designer. The various designers in the project's design team use the building plan as a basis for their own plans and models within their respective disciplines. The chief designer is responsible for coordinating the plans and models from the different disciplines, which is carried out regularly during the project in design meetings.

Special plans

The submission of special plans is regulated in the Building Act (section 69). The building control authority may require, in the construction permit, at the kick-off meeting, or for a specific reason during construction, the preparation and submission of special plans deemed necessary due to the scope or complexity of the project.

Special plans are most commonly prepared for structures and building services (MEP) systems. Examples of special plans include structural plans, heating system plans, water and sewer system plans, and ventilation plans. Special designers must have the appropriate professional training in their design discipline.

If the building supervision authority has required a special plan to be submitted, it must be delivered to the authority before the relevant work phase begins.

Designs in data model format

Nowadays, buildings are generally designed using building information models (BIM), which involves creating three-dimensional representations of the building, its components, and the surrounding environment. In the design software, building components are assigned the properties and information needed for procurement and construction. Compared with traditional design methods based on drawings, using a model-based

approach allows stakeholders to achieve a more comprehensive understanding of solutions and a broader information base for construction and maintenance. With inspection programs, plans can be reviewed semi-automatically by comparing the model against the desired rules. An expert reviews the inspection results and raises any issues for consideration by the project team. Three-dimensional review and the integration of models from different design disciplines are common design practices, which facilitate the early detection and correction of conflicts and errors.

3. Proposal and its impact

3.1. Proposal

The proposal defines the data content required for information models attached to a construction permit, which is needed for permit processing. This content largely consists of the current building and apartment information from the Population Information System, its refinements, and data required by various authorities. This information would be called *core information* . As regards the information to be notified, the starting point for the preparation is the data model and codes for construction permit decisions developed in the interoperability work of the Ministry of the Environment. The preparation of these has been carried out in close cooperation with the municipalities and the various actors involved in the construction sector. The three-dimensional content of the data model and the information related to the building elements would be at the main drawing level. The building elements should be marked with the information necessary for the assessment of the construction permit, which is also otherwise necessary for the construction project. Previously, in drawings, this information was indicated by symbols or labels; in data models, it can be a property of a building element, for which there is a standard place in the software used by the designer and in the structure of the IFC design model.

In addition, the proposal specifies the information that the municipality should submit about the kick-off meeting and certain official reviews to the information system for the built environment.

3.2. Building permit data models

In building design, the modelling of the building and the preparation of drawings often take place in the same software. The IFC model to be submitted as an attachment to the permit is exported from the software, a process similar to saving a PDF file from a word processor.

When applying for a construction permit, the main drawings are printed based on the building plan, and an IFC-format plan model is saved, the data content of which meets the needs of the building supervision authority. The number of drawings and the content of information models typically required for a building project are usually broader than what is needed solely for the permit application. If changes are made to the building plans during construction, they are updated in the plan model, and a as-built model is submitted to the building supervision authority before the final inspection.

3.3. Impacts of the proposal

The proposal has a key impact on the storage of data collected from permit applications in connection with construction permits and on the smooth transfer of this data to the authorities that require it. The standardisation of data is also important for statistical analysis. For parties undertaking construction projects and for designers, the proposal clarifies the information required in a permit application.

Designers, BIM coordinators, and contractors have reviewed building information models and their content, both visually and using inspection programs. These inspections have also been carried out and tested in municipalities and development projects using plan models. Defining the data content of the plan model provides better conditions than before for the use of programmatic inspections, both in design offices and in building supervision.

Preparatory work

The proposal has been prepared as official work by the Ministry of the Environment. During the preparation, a stakeholder participation group and a working group appointed to monitor the decrees of the Building Act were consulted.

The preparatory documents can be found in the project window with the codes YM052:00/2022 and VN/34526/2022.

3.4. Feedback

The draft decree was open for statements during the period 19.12.2024–16.02.2025 Statements were requested via the lausuntopalvelu.fi service. Statements were received broadly from various sectors related to construction. In particular, responses were provided by construction companies, design and consulting firms, and municipalities.

A total of 58 statements were issued. The statements can be found in the project window with the ID YM052:00/2022 and VN/34526/2022.

Overall, the respondents considered the proposal for the decree to be good in principle. The statements addressed the draft decree from a wide range of perspectives.

Many respondents found the terms and definitions used in the draft decree unclear or open to interpretation. The respondents emphasised the importance of clarifying the definitions of machine-readable format and machine-readable data in the decree or in the accompanying explanatory memorandum. For example, in the statements from the municipality of Vesilahti, it was noted that the machine-readable format remains unclear based on the draft decree, and it is not evident what specific electronic file format would be acceptable. The city of Järvenpää pointed out that some definitions in the draft decree are left to the reader’s interpretation. The statement stressed the importance of ensuring that the decree and its annexes are understandable and unambiguous for all parties.

Some respondents also drew attention to the Rava3Pro project and differences between its definitions and the official data model. Property owners and developers (Rakli ry) stated in their comment that the definitions in the Rava3Pro project do not cover all the core data required in the draft decree, leaving room for interpretation of data content and thus reducing the predictability of the permit process.

Respondents also highlighted the minimum version of the Information Foundation Classes (*IFC*) file format specified in the draft decree. Some noted that, at the time of commenting, certain design, viewing, and inspection software did not support the proposed IFC 4.3 minimum version. However, the newer version was supported in the comments, as respondents felt it would allow for handling more detailed and extensive information than previous versions.

Some comments raised concerns about whether IFC 4.3 is suitable for archiving. The National Archives noted in its comment that it has no remarks regarding the IFC version. However, it emphasised the importance of standardisation, machine-readable data structures, and persistent identifiers in the management of data produced and processed by public authorities.

Statements from municipalities highlighted that some essential information required by authorities was missing from the draft decree or its annexes. The views of the respondents on what constituted missing key information varied. The city of Lahti noted missing coordinate information. The city of Vantaa mentioned the structuring of core building data and the energy efficiency figure. The city of Helsinki noted that boundary markers and their identifying information were not included in the draft decree, although information related to property boundaries is essential, particularly in relation to the building site model.

Regarding the final chapter of the draft decree concerning the Ryhti Built Environment Information System, municipalities commented that the stages of inspections and the terminology used for these stages should be reviewed, especially concerning the “in progress” status of situational information. The city of Tampere commented that recording an inspection as “in progress” seems unrealistic and that it is difficult to identify suitable use cases for the situational status of an inspection.

Based on the feedback, numerous corrections have been made to the draft decree and its explanatory memorandum. For example, concerning the data submitted to the Ryhti system, the values in the inspection status code list have been updated in the Ministry of the Environment’s interoperability work, and the “in progress” stage has been removed.

In the continued preparation of the draft decree, questions regarding coordinate systems and IFC models have been addressed. In the continued preparation, the IFC model version was retained at 4.3, as during the preparation several system providers added support for version 4.3.

The annexes of the draft decree were clarified and made more readable. The scope of the data to be submitted was also refined. In addition, technical and language corrections were made to the draft decree and its annexes.

4. Power to issue decrees

The Ministry of the Environment’s decree would be issued under the delegated powers set out in Sections 60, 61, 69, and 72 of the Building Act.

Under the delegated powers in Sections 60, 61, and 69, the Ministry of the Environment may, by decree, issue more detailed provisions on the building information model (BIM) format of the building plan and machine-readable data, the content and presentation of the main drawings and reports, as well as provisions on BIM-format plans and on the content and presentation of special plans and their corresponding plan models and machine-readable data.

The delegated powers concerning model-based plans and presentation also include the authority to issue detailed provisions on the file format of the information model.

Section 60 of the Building Act also regulates the as-built model. The delegated powers in subsection 4 therefore apply directly to the as-built model as well. In addition, Section 71 of the Building Act provides that the as-built model must include changes made during construction that deviate from the original plans.

Regarding official inspections, the Ministry of the Environment may, by decree, lay down more detailed provisions on the content of the information to be provided on the construction start notification or the kick-off meeting, the bottom review, the site review, the partial final inspection and the final inspection and on the machine-readable format of the information. The delegated authority for this is based on section 72 of the Building Act.

5. Provision-specific rationale

Section 1 *Scope*

This section would provide for the scope of the decree. The decree would apply to the content and presentation of construction plan models, as-built models, and special plans, as well as the machine-readable data and formats of these plans and models.

In addition, the decree would apply to the machine-readable format and content of data submitted to the Built Environment Information System in connection with official inspections and the building kick-off meeting.

Section 2 *Machine readable format*

This section defines the machine-readable format for the purposes of this decree. Subsection 1 expands on the definition of machine-readable format in section 2(14) of the Act on the Management of Public Administration Information (906/2019, *Information Management Act*). Under that Act, a machine-readable format refers to a file format whose structure enables software to easily identify, recognise, and extract datasets, individual data, and their structures.

Subsection 1 of this decree provides a broader definition of machine-readable format. A machine-readable format is understood to include not only the file format but also the data format. A machine-readable format is understood to include not only the file format but also the data format. This expanded definition also allows the use of certain file compression types that are not inherently machine-readable but from which machine-readable data can be extracted.

The use of the word “*easily*” in this context limits acceptable compression types and other file formats to those commonly used in the industry. For example, rare, proprietary file formats used by a single manufacturer or software package would not be acceptable. File or compression formats must be widely used in the sector. In principle, manufacturer-specific closed file and compression formats are prohibited. These cannot be considered truly interoperable if they cannot be used across all software and data cannot be easily extracted from them.

Subsection 2 clarifies what is not considered a machine-readable format. A machine-readable format does not include file formats or data created by photographing, scanning, laser scanning, converting documents into electronic form, or by any similar method that results in data or file formats requiring optical character recognition (OCR), computer vision, artificial intelligence, or similar tools.

Data or files produced by scanning or otherwise reproducing drawings or forms into electronic format are not considered machine-readable. While the resulting file formats from such reproduction, copying, or scanning may themselves be machine-readable, the data they contain are not.

Machine-readable formats do include Portable Document Format (*PDF*) files that are primarily built from XML files or otherwise contain textual components that can be processed by software. A typical PDF file consists of bitmap and vector graphics as well as text. *Bitmap* graphics are generally not machine-readable. The machine-readability of a file depends on the format in which the content is stored within the PDF. Files that are locked or otherwise restricted in use are also not considered machine-readable. The requirement for machine-readability also applies to archivable PDF/A files.

Section 3 *Data model file format*

This section regulates the file format of the submitted files. When information models are submitted as electronic files, the Information Foundation Classes (IFC) format must be used (IFC file, IFC). The section specifies that the minimum version of the file is IFC 4.3.2.0. A newer version of the files could also be used. IFC version 4.3.2.0 is also standardised by the International Organization for Standardization (ISO) as ISO 16739. It is an open file format, published under the Creative Commons Attribution-NoDerivatives 4.0 International license (CC BY-ND 4.0). The IFC is an open, software-independent international standard. It is used in the construction industry worldwide in the design phase, construction and maintenance. Building Smart International and ISO have reported that version 4.3 will be maintained for a long time and will continue to be used in the future alongside the more recent IFC versions.

IFC 4.3 is also widely supported in urban planning and construction, where previous versions are not compatible with urban planning software. The IFC 4.3 version is supported by many of the most important design software in the industry. During 2025, 4.3 support has been promised for the latest key software. The 4.3 version of IFC is already widely supported by other open source software as well.

The IFC file should use the Model Viewer Definition (MVD)*Reference View as its data exchange*view. The file to be saved in IFC-SPF format must have an .ifc extension.

IFC-SPF means the STEP Physical File of an IFC file. STEP files are used to transfer 3D data in design software. IFC-SPF files compress their data into a machine-readable text and human-readable single file that is easy to read with software.

Section 4. *Design model*

The section would provide for the design model in accordance with section 60 of the Building Act (751/2023). A design model refers to the data set of a building in a machine-readable and interoperable data structure. The building project information in a plan model contains the main information about the building and its components, including their properties.

A plan model consists of one or more building information models and a site information model. A general principle in building information modelling is that each separate building is modelled in its own information model, and the information models of special plans are created per design discipline as separate models. Different designers are responsible for the information models they have produced. The internal structure of IFC supports this approach. If required for review, different information models can be combined into *federated models*. If required for review, different information models can be combined into federated models.

Subsection 2 of this section regulates the data content of the plan model. The information model must include the data specified in Sections 7 and 8 of the decree and the core building project information set out in Annexes 1 and 2.

Section 7 of the decree defines the content of the site information model, and Section 8 specifies the modelling approach for the building information model and the key information for building components.

Modelling in accordance with these specifications is supported by the IFC data structure and the modelling tools in software.

Annex 1 defines the core building information. Where applicable to the project, the designer must always include the relevant information in the plan model. The designer should always include in the plan model the core information that is relevant to the project. In cases where a particular piece of information is not applicable, it does not need to be included or should be left empty. For example, if a building project does not have a basement, the basement area is not applicable information and should therefore be left blank.

The core information largely corresponds to the data specified in sections 15 and 16 of the Act on the Population Information System and the Certificate Services (661/2009), commonly referred to as building and apartment information. Core information includes details for identifying building projects, as well as areas and facilities. Some of this information is recorded in the space and building component objects of the information model during design.

Due to project-specific variations, not all information in the annexes can be submitted during the permit phase, or some information may not exist for the entire project. Such information should be left empty or otherwise marked as unknown at the permit stage. However, the information must be submitted as part of the as-built model in accordance with Section 11 of this decree.

The core information proposed in Annex 1 is submitted either tagged in the IFC model or otherwise in a machine-readable form. Information provided in the site model is marked with an r-code in the annex. The description column explains the meaning of the class or attribute, the use case, and the allowable values. The names of classes and attributes in the annexes follow those used in the building permit decision information model. The method for providing values and the allowed values are defined in the Raklu model and in the code sets applicable via the interoperability tool. The address of the site and the building project have separate data fields because they may differ, and both may be needed for permitting purposes. The address is not broken down into separate components here—for example, street name, postcode, and post office—because in information systems the address may be stored as a single field, and interfaces have their own practices for managing this.

The preparation also took into account information needs arising from the Energy Performance of Buildings Directive and the Gigabit Infrastructure Regulation. This includes information such as notification of internal networks to be constructed, readiness for charging points, and the number of charging points and bicycle spaces.

Annex 2 defines the location, space, and component information for plan and as-built models at the main drawing level. This information is provided for objects in the information model representing spaces and building components. In this context, location refers to the geographical location of the information model, which is given relative to the design software’s origin. Further details on the location and coordinates of the information model are provided in the explanatory notes for section 6. Information on spaces includes data on apartments, civil defence shelters, and individual spaces (e.g., rooms). The information provided for building components allows the type and properties of each component to be identified for the purposes of permit processing and the construction project. A predefined type assigned to a space or building component provides a more detailed classification of the component in accordance with the IFC standard. The collection of information on elevators and entrances supports the implementation of accessibility and provides better information for rescue services. Elevators, entrances, and civil defence shelters are assigned a name if necessary, which serves as a unique identifier. Naming is required when there are multiple instances. The name is marked with an x, indicating that it is applied if the information exists. Some of the information

described above should be submitted in a machine-readable form if the project does not include an information model as part of the permit submission. This machine-readable information has been compiled in Annex 3.

For the sake of clarity, subsection 3 would provide that the provisions of subsections 1 and 2 would also apply to other construction works requiring a construction licence.

Section 5 *Machine-readable information about the building plan*

The section would provide for the interoperable and machine-readable data that should be submitted as an annex to the application for a building permit if the building plans are not submitted in the form of a data model. The application for authorisation should be accompanied by the information set out in Annexes 1 and 3. The information in Annex 3 would mainly correspond to the information in Annex 2. However, machine-readable information would not be provided for building elements to the extent that it is in connection with data modelling. The information on lifts and entrances is the same when compared to the data modelling, except that the pre-defined type of IFC is not required here.

Section 6. *Coordinate systems used*

The section would provide for the determination of the location of the building site. Location information would be part of the plan model, the site information model, and specialist design models. Defining and standardising this location information facilitates the use of three-dimensional models in the building permit process, for example in checking compliance with the zoning plan, urban design assessments, and consultation with neighbours.

The section would stipulate that the location of the building project must be defined in a nationally recognised coordinate system and height system. It would also require that the permit application uses an interoperable and uniform coordinate system for all data in both the application and the model.

Coordinates should be linked to the Gauss Krüger projection and use an SRID code between GK19FIN and GK31FIN. Additionally, an acceptable coordinate system would be TM35FIN. For height, the N2000 system should be used. The choice of coordinate system depends on the one used by the receiving municipality. If the municipality has multiple systems in use, the applicant may select which coordinate system to use.

The building permit application would require the use of an interoperable and uniform coordinate system, which must be one of those mentioned above. This requirement ensures that all information models and machine-readable data use the same coordinate system consistently. Coordinate data is used to indicate the geographical location of the model's origin. The coordinates of the model origin are entered in the design software following the software's standard procedures. Each designer marks the origin location of their own information model. All parties creating models for the same project use the same location. The unit of measurement for the model's location is metres, and the precision is specified to three decimal places.

In the Building Permit Decision Information Model (Raklu), the coordinate data is related to reporting the point location of the building. This location shall be determined by the Authority. This information has previously been included in the RH1 form and in the Raklu model, where the reference point refers to the location assigned to a part of the building. The locations of entrances are reported by the building permit applicant, and the required precision for these locations is 1 metre.

Section 7. *Building Site Information Model*

The section would regulate the building site information model. The information model referred to in section 4 would consist of both the building information model and the building site information model. The building site information model, as part of the overall project model, must include the geometry of the area in a three-dimensional model. The 3D model would be bounded by the site boundaries and must include at minimum the shape of the planned ground surface at the correct elevation, linked to a recognised height system. However, the municipality may require that the building site information model also include other data necessary for deciding the permit.

The building site information model would not fully correspond to the site plan. Currently, achieving full equivalence with the site plan is challenging. Specifying the planned surface shape as a minimum requirement would enable effective placement of the building in the city model, as well as allow municipalities to collect necessary information about the terrain for potential city models.

Linking the ground surface to the correct elevation makes it possible to use the 3D model in future building design. It would not be necessary to model surrounding areas and buildings in the building site model. These details are already indicated in the site plan. The building site model does not need to include these, as they can be linked directly from the municipality's city model or obtained from information-model-based zoning data.

This requirement would not place additional burden on operators. Operators who already design using information models typically design the building sites in more detail and often in 3D. The models are used, for example, in coordination, in the calculation of quantities and in site management.

Subsection 2 of the section would provide that the data model should be submitted only if the changes made in connection with the construction, repair or other modification would concern the construction site. The information model would not have to be provided in situations where there would be no changes to the construction site.

Subsection 3 would provide that the core data referred to in Annex 1, which are separately marked in Annex 1 to the construction site, should be included in the construction site data model.

Section 8 *Building information model*

The section would provide for a building information model. Subsection 1 of the section would stipulate that the information model of a building should be modelled in layers and that the information model should include the premises and apartments located in the building.

Subsection 2 of the section would lay down requirements for data modelling for building elements. The type marking of a building element can be combined with the information required in the permit application, such as the construction type code. The reliable definition of the type affects the operation, procurement and maintenance of the construction site. In renovation projects, it is necessary to distinguish between existing structures, structures to be demolished and new structures. Separation of parts of the outer envelope facilitates the connection of the building to the urban model and when carrying out inspections relating to energy efficiency

Section 9 *Information model for the special plan*

The section would stipulate that the design model containing the information for the specific plan should include the core building information, the building component information, the system information and the

product component information as specified in Annex 4 and Annex 5. Building components, systems and product components should also be modelled into the data model in accordance with Annex 5. The key to the core information in the specific plans is the identification of the plans and the construction site. The core data to be provided in the IFC model or in a machine readable format are the same and therefore these data are included in the same annex.

Subsection 2 would provide that the data model of the special plan should be modelled on a layer-by-layer basis.

Section 10 *Machine-readable information in the special plan*

The section would lay down the information that would have to be provided if the special plan were to be submitted only in the form of drawings and machine-readable data. The information would be in Annex 4 of the Regulation.

Section 11 *As-built model*

The section would provide for the content of the as-built model. The as-built model would correspond to the information content of section 4, updated to reflect the changes that occurred during the project, so that the planning model would reflect the actual project. The as-built model shall also contain all the information referred to in section 4 that is known but that was not submitted as part of the design model. The performance model should also contain all realised data in accordance with Annexes 1 and 2. It would also be stipulated that the template for the implementation of the special plan should contain the information actually carried out in accordance with Section 9 and Annexes 4 and 5, so that it corresponds to the actual project.

Section 12 *Information on implemented updated plans*

The section would provide for the information that would have to be submitted if the plans were in another machine-readable format. In this case, the actual plans should contain the information required by section 5 of the Decree and Annexes 1 and 3 as updated actual data. In the case of specific plans, the information required under section 10 and Annex 4 would be provided as implemented. The requirement for specific plans would only apply to situations where the specific plans would have been drawn up in a format other than the format of the data model.

The actual data shall also include the data that were not known in connection with the application for a permit. Such data would include, for example, permanent building codes or permanent apartment codes.

Section 13 *Machine-readable data format for data from official audits*

The section would provide that the information pursuant to section 14 of this Decree would be submitted to the information system for the built environment in a format and structure supported by the technical interface of the information system.

According to Section 3 of the Act on the Information System for the Construction Environment (431/2023), the Finnish Environment Institute is responsible for the establishment, maintenance and development of the built environment information system. As part of the maintenance, the Finnish Environment Institute is responsible for the technical interfaces of the Built Environment Information System and their definition. The section would therefore provide that the format and structure of the data would be in accordance with the interface descriptions of the Finnish Environment Agency. In practice, this would involve the transfer of data in JSON format.

Section 14 *Information to be provided on public authority reviews*

The section would lay down provisions on the information that the municipality should submit to the information system for the built environment on official inspections and the kick-off meeting. The surveys themselves would not be submitted to the Built Environment Information System. According to section 72 of the Building Act, information must be provided on the notice of commencement or the commencement meeting, the ground survey, the site survey, the partial final survey and the final survey. Submitting information on other inspections or submitting inspections would be voluntary for the municipality. The required information would be:

1) Permanent building code or other building identifier;
2) the type of review;
3) the first and last name of the author of the survey;
4) the status of the inspection;
5) an indication of whether such an examination is required by the licensing regulations; and
6) date of the review

The above information is already collected as part of the municipal inspections and as part of the information collected at the kick-off meeting. The information would be used for various public authority tasks, such as updating the rescue service action plan.

The status of the inspection would refer to information as to whether the inspection is ongoing, completed or suspended. In the majority of cases, the information would be provided with the value "completed" if the system used by the municipality supported this.

Subsection 2 of the section would provide that, in appropriate situations, the municipality should also provide information on the observations made during the inspection and on the subject matter of the inspection. No data would need to be collected or provided unless the survey specifically required the collection of this information.

Subsection 3 would provide that subsections 1 and 2 would also apply to the opening meeting, which is not an inspection by the authorities.

Section 15 *Entry into force*

The section would provide for the Decree’s entry into force. The decree would enter into force on 1 January 2026.

6. Entry into force

It is proposed that the Decree enters into force on 1 January 2026.