Project "Technical assistance for Reforming the Construction Development Legislation Framework"

Inception Report

31 October 2016

1. Permitting and Building Control Procedures (Mikulits)

1.1. Introduction

Basis of this part of the report are the following pieces of legislation:

- Streets and Buildings Regulation Law (preliminary draft of the consolidated version, April 2015)
- Streets and Buildings Regulations (draft of the consolidated version, April 2015)
- Town and Country Planning Law (consolidated version, 2015)

The pieces of legislation in question have obviously a long history, going back to 1959, 1954 and 1972, respectively. As a consequence, the structure of these laws and the regulations is characterized by a multitude of amendments and editions which have been introduced over the decades, partly also with the character of ad hoc measures. This gives altogether the impression that a more radical overhaul in the form of a general recast could be advisable.

In the following the results of a first analysis of these pieces of legislation will be given, together with a description of the most important problems and critical points which have been discovered. The conclusions will cover the structure of the legislation in general and the four major topics of "Planning Permission", "Building Permit", "Technical Requirements", "Control Procedures and Inspections" and "Certificate of Approval".

Proposals how the legal framework could be improved can only be made after discussion of this inception report with stakeholders and will be explained in a separate report.

1.2. Structure of the legislation

Since the pieces of legislation in question have been developed incrementally over decades the structure is not ideal, as can be shown by the following examples:

- Definitions are not only given at the beginning of the documents, but partly also somewhere in the middle, probably caused by amendments for which these additional definitions were necessary to be introduced (e.g. Streets and Buildings Regulation Law, Articles 9, 9A, 10C, 10D, 15A, 17, 26, Streets and Buildings Regulations, Articles 6, 6A, 18, 61 and Town and Country Planning Law, Articles 20, 28, 40 45A, 60);
- There are many references and back references which make it difficult to read and understand the text easily;
- Similarly, the structure of Articles is often confusing, extending over several pages with several levels of sub-points (Article – paragraph – sub-points with letters – sub-points with roman numerals);

- Sometimes provisions appear on places where they should not be expected, e.g. provisions concerning zoning and planning in art. 14 of the Streets and Buildings Regulation Law or parts IV and VI in the Streets and Buildings Regulations;
- A similar problem is the explicit enumeration of points which should be examined by the competent authority during the grant of the permit (Art. 9 of the Streets and Buildings Regulation Law) which could also be considered as implicit technical requirements which, however, should normally be in the Streets and Buildings Regulations and not in the Law;
- Furthermore, such explicit enumerations could be understood in a way, that other issues concerning the technical requirements as given in the Streets and Buildings Regulations would not need to be examined by the competent authority in detail;
- Elements of Buildings Control Procedures can also be found in both, the Streets and Buildings Regulation Law, and the Streets and Buildings Regulations, e.g. provisions concerning the supervision and the supervising engineer.

1.3. Planning permission

Cyprus applies a similar approach as England insofar as there is a separate planning permission as opposed to the building permit. On the one hand these are indeed to different matters – the planning permission deals with the fulfilment of the provisions concerning zoning and planning, while the building permit deals with the fulfilment of the technical requirements of the construction works. On the other hand such an approach brings two administrative procedures instead of one and makes the whole permitting process more complicated.

Furthermore, the competent authorities are partly different, and the fulfilment of the zoning and planning provisions can only be established during the construction process itself which is, however, subject to controls performed by the building authority.

1.4. Building permit

There is only one uniform procedure for the granting of a building permit, which applies for any construction works, be it a small one family house or a tall high-rise building. That means that there is no differentiation made depending on the risk, which is connected with the building or construction works and its size and use. This is not only an unnecessary burden in case of small and simple projects, but leads also to an unnecessary administrative effort for the authorities.

Furthermore, there are different authorities which are "competent authorities" for issuing building permits, depending on the location (district or municipalities) it can be:

- District administration offices,
- Municipalities, or
- Community councils.

This means also that in one case the acting persons will be civil servants, while in another case it might be an elected holder of a political post.

1.5. Technical Requirements

The technical requirements for construction works are spread amongst several documents. As already mentioned above, elements of "technical requirements" can be found in the Streets and Buildings Regulation Law, e.g. in art. 9, and the most important document for the technical requirements are of

course the Streets and Buildings Regulations. However, beside these two pieces of legislation, there are separate regulations and orders dealing with the requirements for the energy performance of buildings and dangerous substances, and for fire safety the Minister of the Interior has issued a "Fire Safety Code of Practice" which "provides guidance in relation to the fire safety requirements".

The degree of detail of these technical requirements differ significantly. To give some examples, the requirements concerning energy performance are spread over one Law, three Regulations and one Order with altogether 45 pages, whereas for fire safety there is the above mentioned Code of practice with 273 pages.

Furthermore, the structure of Art. 8 of the Streets and Buildings Regulation Law, where the different "chapters" of requirements are listed, is not entirely covered by the detailed technical requirements mentioned above.

1.6. Control procedures and inspections

The duty of controlling the fulfilment of the technical requirements is distributed between the competent authority on the one hand and the supervising engineer on the other hand. While such a distribution of tasks and involvement of a third party control is a good approach and reflects best practice, it seems to be problematic that this distribution of tasks is not clearly specified. For inspections, as an example, there are only very general provisions for the supervising engineer in the Streets and Buildings Regulation Law, whereas the Streets and Buildings Regulations mention inspection only at one place, and this is the case of the inspection of excavations which is performed by the competent authority.

Furthermore, as for the permitting procedure, also for the control procedures there is no differentiation made depending on the risk, which is connected with the building or construction works and its size and use.

1.7. Certificate of approval

After completion of the construction works a "Certificate of Approval" is required in order to be able to occupy or use the given building or construction works. This "Certificate of Approval" is issued by the competent authority. This applies to any construction works, independent of its size or use which means that, as for the building permit and control procedures, there is again no differentiation made according to the risk linked to the particular construction works or buildings.

Furthermore, the respective provisions are quite complicated. The supervising engineer shall always issue a "Certificate of Completion" as an input to the competent authority, which however may also ask the supervising engineer to hand out a "complete report on the performance of the work", without mentioning criteria in which cases this should be the case.

The "Certificate of Approval" may only be issued by the competent authority, which this is, however, also possible in cases where the completed building or construction works does not fulfil all technical requirements, or even if there is no planning permission or construction permit in force (Art. 10B, paragraph 3). In such cases also a "Certificate of Approval with notes" can be issued.

It should also be considered that there is a connection between the "Certificate of Approval" and the procedures for entry into the land register (title deed), which makes the whole issue of the completion of the building a sensitive topic.

2. Planning and Zoning (Schwaberger)

2.1. Introduction

In preparation of the part of (spatial) planning and zoning the "Town and country planning Law" from Cyprus, from 1972 with the several amendments, was reviewed.

The Town and country planning Law of Cyprus starts with a short preliminary where the expressions used in the law got an interpretation. In the following summary there are the main topics pointed out, such as planning authority, the Island plan, the local plan a.s.o. which are much concerned to spatial and/or regional planning. Going too deeply in development of the building itself, this is not part of this review.

Reading the general purposes of the law it shows up, that sustainable planning and ecology were implemented late with the mandates as maintopics in the plans. New topics, like environmental issues, uses of sustainable energy by windparks, pv a.s.o, determinations about percentages of green public spaces a.s.o. were implemented in the mandates.

Further on it shows up that for several plans (island plan, local plan a.s.o.) the planning procedure, notification a.s.o. is repeated in all details, although they are very often the same.

It was also reviewed the Streets and Buildings Law and the Streets and Building Regulation as there are determinations about zoning plans and regulations concerning distances to streets a.s.o.

2.2. Planning Authority and Procedure:

In Cyprus the Minister of Finance and the Minister of Interior and or any other person or body who is authorised are in charge for the purposes of this law. The minister shall get consult of a committee set up by other minister related to the functions, any person, body or authority with special knowledge.

For the carrying out of the purposes of this law and regulations the minister shall establish a board, which will be the planning authority.

The Minister may delegate to any person, body or authority delegate the power to exercise any of his functions under this law. Such delegation shall be made by order made by the Minister and published in the official Gazette of the Republic. In the exercise of his function the minister should make sure orders and give directions concerning the achieved purposes of the law.

2.3. The Island Plan

The Island Plan is the result of the survey and report of the Republic of Cyprus. The Minister of Finance is obliged (if demanded by the Council of Ministers) to submit the plan for approval. After approval in Council it will be published also in official Gazette of the Republic and is open to inspection at such place in each district.

The purpose and content of the Island Plan :

- The plan shall indicate the general policy in promoting and controlling development and may indicate the governmental intention of immovable property.
- Including the location of population, industry and commerce, tourism, the patter of transport and of public services. It should define areas of special social, historic and architectural or cultural interest or natural beauty and other matters of more than local importance.

→ It should be reviewed by the Minister and reported every year by including proposals for necessary amendmends. Decided again by the council of ministers from time to time.
 → The amendmends will be published in the same way like the island plan.

2.4. The Local Plan, area schemes and policy statement

The survey of any area in coordination with a plan, in accordance with the law, is the so called Local Plan. Such areas shall be defined by the reference to a map.

<u>The purpose of the Local Plan</u> is regarding to aims and purposes of Island plan to secure orderly development in interests of:

- Health, amenity, convenience and general welfare of community
- Indicate general principles of development
- To define sites of particular purposes
- To protect features or areas of social, historical or architectural importance
- To safeguard routes of highways, pipelines and other services

The content of the Local Plan (subjected to any regulations under the law):

- Any local plan should include a map and descriptive matter
- Shall specify the population for which the plan is to make
- Indicate the proposed general use zone for land and buildings
- Any communications necessary both to protect such zones and serve them
- Define the sites of roads, public and other buildings and works, airfields, parks, pleasure grounds, nature reserves and other open spaces
- Or allocate areas for use for residential, agricultural, industrial, commercial, tourist and other purposes of any class specified in plan.

Further provisions can be made (without prejudice to the generality of another subsection:

- Distances between buildings, distance between buildings and boundaries and distance between buildings and centre of road
- The proportion or ratio of land in respect to building sites
- The minimum size of building sites
- The height of buildings, the floor area of buildings
- The extent of immovable property to be laid out and exclusively reserved for the parking of vehicles and for the creation of public parking places
- The reservation of sites of new road and the stopping up of any existing road
- The population density in any area and the allocation of sites of public open spaces.
- \rightarrow The Minister is also here responsible for the elaboration or amendment of the local plan.

→ There has to be a public hearing (see mandate 4/2008) besides written opinions and suggestions of any other person, body or authority within a time limit by a call. Public hearing is conducted by the planning council or representatives and they are responsible for the actualization. The minister should also take into consideration the views of the local authority (hearing of the local authorities), that fall under the local plan area. The views and suggestions shall be filled in a special register with a list of everybody and also published in the Official Gazette of the Republic and forwarded to the House of Representatives for information purposes.

Purpose of the Public hearing (lasting 45 days from day of commencement)

The planning council get the possibility to be publicity informed about opinions, suggestions and concerns of authorities, organizations a.s.o. and the necessary transparency is ensured. The further regulations points concern the publication of place, time and programme of the public hearing, the characteristics of the procedure and principles, the agenda and other regulations (see mandate 4/2008 (1-39).

Area schemes:

The minister may prepare detailed proposals (= area schemes) for any part of a local plan area or for any schemes. Any local plan and any area scheme shall be amended from time to time (= a new independent plan).

<u>Review</u>

Each local or regional plan shall be reviewed (every 5 or 7 years depending on subparagraph).

Preparation of local plan and area schemes:

Any local authorities at any time may prepare and submit to Minister any local plan or any area schemes. The minister may adopt or may refuse to adopt it. The minister may delegate to any person, body or authority the duty of preparing any Local Plan and thereafter its review and amendment under his name.

Being prepared, amended, adopted or approved a local plan or area scheme, the minister shall submit a duplicate of such plan or scheme to the office of every local authority the region of which falls within the region of the plan or scheme, at the office of the local district administration and at the head office and the local district office of the department of Town Planning and Housing, and shall publish the notification (see more details of notification and final approve on page 22-25). 4 months after notification objections may be submitted and examined by the minister (time for it 14 months), then the minister sends it to the council of Ministers. They have the power to approve or not. The amendmends shall enter into force on the day a notification is published in the official Gazette.

Policy statement

The minister may and is obliged to, if demanded by the council to prepare a Policy statement for a town planning permit for <u>development for which no local plan or area scheme has yet entered</u> into force. It shall be examined for the purpose of orderly development, for the interest of health, convenience, facilitation and general welfare (till local plan and area scheme are prevailed). In the policy statement shall be taken under account any targets and objectives of any plan for the island in force at the time being. It shall provide for the distribution of areas for residential useage or for agriculture, industrial, commercial or other purposes, shall identify nature or village conservation areas, and areas of natural beauty, and in general shall not include the general principles. The statement shall be accompanied by such maps and other description material and shall be under constant revision by the minister (max. every 5 years).

Conflicts of development plans: if at the same time and relating to same area there exist more development plans, the plan to the larger scale shall be prevailed.

2.5. Development – planning control (20 – 27, 29 – 34, 36-37, 40 – 43, not strongly relevant for spatial or regional planning)

Development – planning control means the carrying out of building, engineering, mining a.s.o. in, on, over or under immovable property, or the making of any material change.

Planning permissions – consequences (28)

Any grant of planning permission is to develop immovable property and is valid for 3 years, but may be extended.

White zones (35)

To protect areas of natural beauty or special character the council of ministers may issue an Order defining areas (White Zones) within which, for the time being, the existing uses are generally to remain unchanged and further building is to be limited generally to that essential to the needs of the area with particular reference to agriculture, forestry, fishing, archaeology, tourism a.s.o. The order shall refer to a map and should include a statement of the principles.

Preservation Orders (38)

A preservation order shall be made by the minister in accordance with regulations under this law and shall specify the particular building, group of building or area in respect of which it is made and, in general terms, the special social, architectural, historic or other interest or character or natural beauty. There are also tree protection orders (39) which specify a particular tree or group of trees or woodland area.

Supplementary Provisions (44-45)

- Application for determination: Persons who have carried out or make proposes for an immovable property or want to make any change in the use of it and wishes it to determine has to make an application for planning permission to the planning authority.
- Right of judicial recourse: Any person affected by a decision or order by the Minister in accordance with any provision of this law may challenge such decision or order before the Supreme Court.

On the following pages (45a-45b) there are determinations and/or regulations for provision licensing existing buildings or plots under development, temporary provisions a.s.o.

2.6. Enforcement of planning control (Enforcement where planning permission required)

This part of the law (46-59) is dealing with further procedures concerning power to serve enforcement notices, administrative recourses, penalties for non-compliance with enforcement notice, administrative fine for violation of enforcement notice, execution by planning authority, supplementary provisions as so to enforcement notices, effect of planning permission of enforcement notice, enforcement on other cases like tree protection and preservation orders and of control of advertisements. These regulations are not really deeply related to the planning itself and are therefore no more detailed described in this report.

2.7. Compulsory acquisition of immovable property and provisions related thereto (60-66)

These regulations are not really deeply related to the planning itself and are therefore no more detailed described in this report

2.8. Compensation - Claims for and payment of compensation, Betterment charge, Miscellaneous (67-91)

These regulations are not really deeply related to the planning itself and are therefore no more detailed described in this report.

2.9. Regulatory Administrative Acts to the town and planning law

2.9.1. Regulations pursuant paragraph 2 of article 4 (R.A.A. 163/1973) – planning authority, establishing a board, council a.s.o.

There are determined detailed interpretations concerning who is meant with president (President of the Council), council (Town and Planning Council), and minister (Minister of Interior). Further on it is written down the establishment of town and planning council, delegation of responsibilities of the Minister to the Council, the meetings, the declaration of interest, the committee, facilities and services, the duty of confidentiality and the remuneration

2.9.2. Regulations pursuant to article 4 (R.A.A. 884/2003)

It is mainly regulating how the Council shall be composed:

13 members: 4 persons recognized standing and credibility, knowledgeable in matters of town planning, country planning, environment and development; the president of the Municipalities Union of Cyprus or representative; The president of the Communities Union of Cyprus or a representative; the president of the scientific and technical chamber of Cyprus or a representative; the permanent secretaries or representatives of the ministers for Interior, Agriculture-Natural resources-Environment, for communications and works and for commerce, Industry and Tourism and the general director of the planning bureau or a representative.

2.9.3. Regulations in accordance with article 80 (R.A.A. 119/1976) – betterment charge

There are very much detailed regulations concerning first and second valuation, coefficient of improvement fee, obligation to make payment a.s.o.

2.9.4. Regulations pursuant to article 67 and 86 (R.A.A. 56/1990) – determination of compensation

There are determined detailed interpretation about court, law a.s.o., as well as additional determinations concerning notification, supplementary details, compensation, recourse to court a.s.o. Additionally there is now an annex (a form) added concerning the notification.

2.9.5. Regulations pursuant to article 89 (R.A.A. 759/2003)

In these regulations the terms large scale accident, dangerous substances, risk and unit whenever encountered, shall have the meaning attributed to them in the Control of Large Scale Accident Hazards Related to Dangerous Substances Regulations. It is determined that in preparing a development plan, the town planning authority shall see these regulations mentioned above a.s.o.

2.9.6. Regulations (R.A.A. 399/2008) - read together with 5)

New regulations about distances from urban and other zones are made.

The Town and Planning Authority shall ensure that in drawing up the Development Plan that suitable distances shall be observed in the long term between the units and the residential zones, the buildings and the public use zones, the main road transport network, as far as possible, the recreation spaces, as well as the areas of a particularly sensitive natural environment or of special interest, whilst in cases of existing units the need for implementing additional technical measures shall be taken into consideration, so that hazards for the public are not increased.

2.9.7. Regulations pursuant to article 26 (R.A.A. 120/2005, R.A.A. 309/1999) – town planning decisions

Detailed interpretations are made concerning application, compensatory measures, notificationd a.s.o. Further on you find here regulations about the establishment of the deviations Study Council. This Council shall be established with the object to advise the Council of Ministers (concerning paragraph 2 of article 26). Then there are determinations made about composition of the council, the appointment of president and vice president a.s.o.

Additionally there are more regulations made concerning:

- Publication of application for the granting of town planning permit by derogation
- Submission and examination of application
- Examination of application by the council
- Criteria and principles for the examination of application
- Compensatory measures
- Register of applications and decisions
- Fees
- Miscellaneous provisions

Annex 1 (regulation 12): publication of application Annex 2 (regulation 15): consultations Annex 3 (regulation 16): public consultations

2.9.8. Regulations under section 86 (R.A.A. 29/2013) – about fees (too detailed for mention here)

2.9.9. Order Pursuant or on the basis to article 22 (R.A.A. 358/1990, 859/2003, 451/2014) – development order

These orders shall be referred to as the Town and Country Planning Special Development Order from 1990 concerning livestock areas and allowed developments (animal farming purposes) a.s.o. as well as permitted developments concerning housing units..., change of use, temporary buildings and uses, agricultural and forestry buildings, developments for industrial uses...

R.A.A. 859/2003:

These regulations to article 22 are concerning immoveable property, in case of conflicts between them. The regulations are determining in detail permitted development, commands preventing permitted development, change of use of building or other immovable property.

R.A.A. 451/2014:

This order is referred to as a basic general order and deals about <u>development in any category</u> specified in the first annex. It assumes that for a permit that has been granted by the Town Planning Authority, therefore no application shall be submitted for it.

The first annex is split up into 15 categories listed up where developments are permitted.

- Category I: development within the pitch perimeter of an approved housing development up to 4 housing units, determines extensions of the housing developments with detailed determinations like a zoning plan (see list).
- Category II: development inside the ground perimeter of a plot
- Category III for example describes developments of animal farming within a livestock.
- Category IV: Miscellaneous secondary activities (maintenance of buildings, demolition of building...)
- Category V: change of use
- Category VI gives determinations about temporary buildings and uses.
- Category VII: agricultural and forestry buildings, works and uses in the countryside
- Category VIII : development for industrial purposes
- Category IX: Repair of private roads and private passages
- Category X: Repair of installations of various services
- Category XI: Development by local authorities
- Category XII: Development by legally authorized contractors
- Category XIII: Developments for the production of energy from renewable energy sources (RES) installations of PV systems, solar panels (were to install)

Second annex is split up in 17 categories of uses (concerning shops, offices, restaurants, health centres, industrial developments in different classes a.s.o.)

2.9.10. Order pursuant to article 5 and 17 (R.A.A. 454/2007) – delegates of powers (functions) of minister.

- The minister <u>delegates to the Town and Planning Councils</u> all the powers conferred on him regarding survey of any area and drawing up of a local plan for such an area, the area plans and the submissions of proposals a.s.o.
- Delegation to Municipal bodies:
 - <u>a)</u> within the boundaries of Nicosia Municipality to the town planning committee of the municipality and to the Nicosia Municipal Council.
 - b) Within the boundaries of the Municipality of Limassol, Larnaca and Paphos: to the town planning committee of the local Municipality and to the local Municipality Council.

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    <u>Delegation of powers to officers</u>:
In all areas not falling with the municipal boundaries of the municipalities of Nicosia, Limassol,
Larnaca and Paphos, the minister shall delegate (with some exceptions) to officers designated in a
letter by him.
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 All the powers of the Minister for town planning control, concerning part 5 and 6 of the law (planning permissions and enforcement of planning control) shall be <u>delegated to the director</u> of town planning and housing department with some exceptions. These are developments for which the Republic of Cyprus is bound towards other states though conventional obligations, developments concerning national security, class A quarrying developments with a surface are over 26,000 m², class A industrial developments, tertiary education/universities/colleges, developments concerning discard of waste, developments concerning national economy (airport, marinas..), developments of mayor and complex urban development a.s.o. (see annex to paragraph 6 and 7).

- Exercise of special discretionary power by the town planning authority
- Submission of monthly data to the minister
- <u>Coordination of town planning authorities</u>

2.9.11. Decree pursuant to section 22 (R.A.A. 334/2009, 27/2014) - Development order

Applies to every immovable property that is being used for industrial or other purposes in a government industrial area. Pursuant to the applicable legislation there are some restrictions f.e. in large parcel located in a Category B industrial area, number of storeys regulations, restrictions concerning category A industrial areas a.s.o. (see more details there).

2.9.12. Decree under section 22 (R.A.A. 247/2012) – Construction of a New Greenhouse

It shall be considered that the Planning Authority issued a permit to every property falling under the provisions of this decree for the construction of a new greenhouse, provided that the following apply: greenhouse shall be used for the purpose of producing agricultural and horticultural products and snail farming only, parcel is located in an agricultural zone, a forage area, a forest area and a reparcelling area, a.s.o. There are further on descriptions about the covering of the area for the generator room, details about the material of the construction, the flooring a.s.o.

2.9.13. Decree under section 22 (R.A.A. 462/2014) – Residential Development on plots on land and under construction

The decree shall apply to every plot of land which is located in residential areas (code "Ka", or code "H") where the planning zones apply in accordance with the policy statement or defined tourist area (code "Ta"), within a specific Development boundary where planning zones have not been published.....

2.10. Mandates to the Town and Country Planning law (in accordance with art. 6)

2.10.1. Mandate 1/1994 – Adequate Access

Determination of the term "adequate access" = a condition for granting a planning permit, shall be deemed under certain conditions f.e. a public road, the right of a passage a.s.o.

2.10.2. Mandate 1/1996 – pursuant to section 6 – purchase of parking areas

For the purpose of determining in connection with the mechanism and the procedures for the purchase of parking areas for public use and for other related matters. Determinations concerning special fund for this purchase, the price of parking aeas, siting-implementation of parking areas a.s.o.

2.10.3. Mandate 1/2000 – Code for the conduct of public hearing

Main objectives, characteristics, invitation and documents, process of public hearing, duration of public hearing and other arrangements.

2.10.4. Mandate 1/2001 pursuant to section 6 – Beachfront sidewalk

Procedures to be followed in case of purchase of the construction obligation for a beachfront sidewalk.

2.10.5. Mandate 1/2003 – student dorms

Specifications for developments involving student dorms.

2.10.6. Mandate 1/2005 – prefabricated and wooden prefabricated buildings

For the purpose of determining a uniform policy as regards the issuance of a planning permit for prefabricated and wooden prefabricated buildings, to protect the amenities and safety for residents and to achieve the planning, architectural and environmental goals pursued through the implementation of the TCP Law and Regulations and Administrative Acts. The mandate includes definitions, the siting, aesthetics and integration into the environment, the compliance with the law and technical specifications a.s.o.

2.10.7. Mandate 2/2005 (Urban and Regional Planning Law) – establish a registration dossier

The Minister of Interiors issues the present Mandate in order to establish a registration dossier of Urban planning applications from all planning authorities, in accordance with the provisions of article 29 of the Urban and Regional Planning Law.

2.10.8. Mandate 1/2006 (Urban and Regional Planning Law) – Developments of the Electricity Authority Cyprus (EAC)

In order to establish a siting policy to developments of EAC, in properties falling into areas for which a Local Plan has not been published and in which the Policy Statement is implemented. Regulations about siting policy, conditions, countervailing measures a.s.o.

2.10.9. Mandate 2/2006 (TCP Law) – Guidance to Planning authorities for power plants using RES

Interpretation of terms (anemometer, wind turbine, wind farm, facilities for the better use of other RES....) and regulations about wind farms, windfarm siting (aesthetic integration, areas where its forbidden to set wind farms a.s.o., distances, noise level), siting from individual wind turbines, general principles, planning permit conditions, other relevant provisions, application disclosure, sufficient access, photovoltaic systems a.s.o.

2.10.10. Mandate 3/2006 (TCP Law) – Radiocommunication Stations

To specify a single policy in relation to the handling of applications concerning radio-communication stations (which are installed at fixed points and can emit radiowaves, such as mobile phone base stations, land satellite stations, radio-television stations a.s.o.). There are determinations about general siting criteria, environmental integration, integration in other sensitive areas, required plans and documents, planning permit conditions, examination period on applications for radiocommunication stations.

2.10.11. Mandate 1/2007 (URP Law) – Equal treatment of providers of electronic communications

Regarding the management of applications about developments from electronic communication providers.

2.10.12. Mandate 2/2007 (TCP Law) – Public hearing

Code for holding public hearings as part of the examination of applications for granting a construction license for the creation of golf courses (Characteristics of the procedure, invitation, documents, duration a.s.o.

2.10.13. Mandate 1/2008 (URP Law) – Handling applications

Necessary information and evidence required for handling applications. Regulating that from 1.2.2008 onwards some special data shall be submitted in all circumstances f.e.:

- aeragrams for each floor of the building with distinct determination of the surfaces,
- topographical attitude surveying of the land or plot under development,
- two cuts in different directions in which the natural terrain line and the altitude of the streets shall be shown,
- area measurement of the land under construction,
- a single zoning plan in a scale of at least 1:200, with full spaces between the constructions and from the limits of the land under development, required parking areas clearly pointed out, for a construction for more than 4 units, which have main entrances along a public road, determinations about the adequate access...
- photographs of the plot under development
- usefull floor spaces of every residential unit shall be written in all floor plans....

2.10.14. Mandate 2/2008 (URP Law) – Special committees for exercising Aesthetic Control

Determinations about the composition of the committee, the members and their experience of it and the meetings.

2.10.15. Mandate 3/2008 (URP Law) – Acquisition of public green spaces

The terms, the conditions, the mechanism and the procedures to be followed in the events of acquisition of the <u>percentage of</u> lots normally required for purposes of <u>an open public space</u> of the published development plan. It is described about the occasions when the acquisition is implemented, the mechanism of acquisition and the special fund for acquisition of public spaces a.s.o.

2.10.16. Mandate 3/2008 (TCP Law) – Public hearing (article 6 and 12d) – part of elaboration of local or regional plan

2.10.17. Mandate 4/2008 – public hearing (amendment)

Process of conduct of a public hearing as part of the elaboration or amendment of a Local Plan or Regional plan. The public hearing is conducted by the Planning Council or the representatives and is responsible for the actualization and completion of the process within the set time limits. The basic purposes is to be publicity informed about opinions, suggestions and concerns of authorities, organizations a.s.o. regarding the elaboration or amendment of a local or regional plan. The necessary transparency is ensured as well as the information to the public. There are regulations made about invitation, preparation, the time, the programme, the characteristics of the procedure, the agenda a.s.o.

2.10.18. Mandate 1/2011 (TCP Law) – Special procedural measures for self-control (annuls § 3 of 1/2008)

Necessary information and evidence required for handling applications submitted for control with the special self-auditing procedural measures. So that more types of residential development as well as other development categories are defined in the so called circular letter number 1/2011. In a registered land or in a land under constructions:

- Housing up to 4 dwelling buildings
- Up to 12 horizontally positioned residences which have main entrance/exits along a public road
- Up to 20 residential flats in a block or flats

- Commercial/office development and mixed commercial-, office- residential development of a total useful floor space of up to 1,000 m² in a land of conventional size

2.10.19. Mandate 1/2014 (TCP Law) – Use of renewable sources of energy

For encouraging the use of RES in various types of development. Has to do with:

- all types of development that fall within the limit or the area of development (see table) excluding the ones that fall within areas with special characteristics, restricted areas or other specific areas with protections provisions.
- With developments of large and complex uses, developments of large and complex urban uses as well as specialized developments a.s.o.

There are set basic conditions to achieve the above aims and objectives (see there).

2.11. Street and building regulation law (issues of zoning)

2.11.1. Power of the competent authority to define zones (article 14)

The competent authority may (upon approval of the council of ministers) define zones through a notification,

- within which building may or may not be constructed for specific professions or industries or which are preserved exclusively for residential purposes or for other purposes.
- which will be preserved for their exclusive use as tourist zones within which the only buildings that may be constructed will be of a particular character, type, design, exterior appearance and in general buildings which have characteristics that comply with the general appearance and usage of the area.
- within which building of lesser value than the other one described in the notification will not be constructed
- within which the max. number of building floors or the max. height of the building of any part of them, or the total area of all the building floors or all or any of the above will be regulated.

2.12. Draft of the consolidation of the Street and building regulations (Part IV and VI) – concerning zoning plans

2.12.1. Heights and space around buildings (Part IV)

There are regulations or requirements concerning building degree (f.e. buildings with 1 floor not more than 50%, buildings with 1-3 floors: groundfloor 50%, first and second floor not exceed 50% of area of the land within the plot borders, more than 3 floors: 30%), heights of buildings and distances to borders. Further on there are detailed determinations about regulations in rural areas a.s.o.

2.12.2. Projections (Part VI) – concerning distances

Detailed determinations about distances of different buildings a.s.o.

2.12.3. Projections (Part VIa) – concerning fences

Character, heights a.s.o of fences around dwelling houses, industrial areas, a.s.o.

2.12.4. Parking spaces (Part VI) – concerning distances

Determinations of parking spaces when constructed new buildings depending on which kind of dwellings covering a special amount of area, for offices, stores, warehouses, industrial buildings, restaurants, shops, hotels a.s.o.

3. Hygiene, health and the environment (Jansche)

3.1. Introduction

The report focused primarily on the points of "Hygiene. Health and Environmental Protection" which are written down in the Streets and Buildings Regulations 2006 - 2015.

But also on the general points (procedures) in the "Streets and Buildings law 2006 – 2015" were evaluated.

In the "Streets and Buildings law 2006 – 2015" are also some technical building regulations.

In the special mandates 1_2003 "Student Dorms" are treated, where further requirements for sanitary facilities were determined.

3.2. Pieces of legislation which have been reviewed

| (1) StrBLaw Apr15_EN | Consolidated version of the Streets and Buildings Law 2006- 2015 | note |
|-------------------------|---|------|
| | Art. 4, (2) | |
| | (c) the placement of openings of building facades; | |
| | (d) the height of ceiling of a building and the total height of | |
| | a building, where the number of floors does not exceed the one permitted; | |
| | Art. 8 (1) | |
| | (a) for the purpose of ensuring the appropriate health and | |
| | safety circumstances, with regards to the building to | |
| | which such designs, sketches and calculations refer; | |
| | (b) for the general purpose of ensuring the appropriate | |
| | health, hygiene, safety, communication, comfort and | |
| | facilities circumstances in the area where the intended works will be executed; | |
| | Art. 9 (1) | |
| | (a) (ii) its level, slope and drainage; | |
| | (iv) the building of bridges, small bridges, ditches, | |
| | waysides, sewers and pavements; | |
| | (xi) the transport, installation and continuous provision | |
| | of appropriate water, which should be sufficient, as well | |
| | as the appropriate and satisfactory maintenance and | |
| | operation of the above installation and of the water supply system; | |

| [] | | [] |
|-----|---|----|
| | (xiii) the execution of the necessary works for the installation of drainage system pipes where appropriate, as provided for by the Law and Regulations of Drainage Systems and according to the terms of the competent authority; | |
| (b) | (i) the material with which any outside wall, foundation, roof, chimney or other outside part of a building is built and their dimension and width; | |
| | (ii) the material with which any inside part of the building is built, to the extent that they affect the durability of the building; | |
| | (iii) the regulation which should take place for the sewerage and the drain system; | |
| | (vi) wells, waterclosets, earthclosets with flushing system, tanks, septic tanks, drain potholes and drain tanks in any building or in relation with any building; | |
| | (vii) the ventilation, lighting and hygiene of any building with regard to its ownership as a dwelling or for any other purpose for which it may have been built or intended; | |
| | (xi) the ensuring of sufficient and appropriate water supply and, with the sole exception of a building that constitutes a detached house and which is not a part of a building or a group of buildings or a cluster of buildings or another building development, terms with regards to the transportation, installation and continuous supply of appropriate water which should be sufficient, as well as terms with regards to the appropriate and satisfactory maintenance and operation of the above installation and water supply system. | |
| | Provided that, for the making of the decision, in any given case concerning the water sufficiency as provided for above, the needs of the whole area from which the water is being supplied should be taken into consideration. | |
| (c) | (ii) the transportation, installation and continuous supply of appropriate water, which should be sufficient, as well as the appropriate and satisfactory maintenance | |

| and operation of the above installation and water supply system. Provided that for the decision making, in any given case, with regards to the water sufficiency as provided for above, the needs of the whole area from which the water is supplied should be taken into consideration. (iii) the change of direction of the natural and artificial flow of water; (iv) the flattening of the plots; (xv) the execution of the necessary works for the |
|---|
| installation of a sewerage system where appropriate, as provided for by the Law and Regulations of Drainage Systems. |
| Art 9 (3) |
| Art. 9 (3) (a) (ii) in virtue of paragraph (b) or (d) of subsection (1) of article 3 with regards to any building, with the sole exception of a building which constitutes a detached house and which does not constitute a part of a building or of a group of buildings or of a cluster of buildings or of another building development which is outside a water supply area, the competent authority will not grant permit with regards to the land or the building in question, unless – after taking the advice of the Director of the Water Development Department of the Ministry of Agriculture and Natural Resources (who will be hereinafter referred to as "the mentioned Director") – it is fully content that |
| (b) The competent authority will not grant any permit in virtue of article 3, unless it is satisfied that the applicant has complied with the provisions of this Law or of any other law that is in force at the time or of a regulation, which concern the provision and supply of water. |
| (d) For the purposes of this subsection "water supply area" means any area to which the Water Board has the authority to supply water, in virtue of any law that is in force at the time and includes such another area which the District Officer, in consultation with the mentioned Director, decides to define as "water supply area" for the purposes of this paragraph. |
| |

| (2) StrBReg | Consolidated version of the Streets and Buildings Regulations | |
|-------------|---|--|
| Apr15_EN | 2006-2015 | |
| | | |
| | Part I - Preliminary | |
| | Part I Art. 2 | |
| | Definition | |
| | "disabled" | |
| | "industrial building" | |
| | "auxiliary building" | |
| | "public building" | |
| | "approved" | |
| | "educational institution" | |
| | "external side of a street" | |
| | "ground storey" | |
| | "habitable room" | |
| | "cubical content" | |
| | "main building" | |
| | "domestic building" | |
| | "drain" | |
| | "Standards" | |
| | "height" | |
| | | |
| | Part III – Building permits | |
| | Part III Art. 5 (1) | |
| | (b) a plan of each storey, such elevations as are necessary | |
| | to indicate the external appearance of the building and | |
| | sections of every storey floor and roof of the building, in | |
| | duplicate, drawn up or reprinted in a clear, | |
| | understandable manner on appropriate, durable | |
| | material to a scale of not less that one in one hundred | |
| | (1:100) and showing- | |
| | (i) the position, form, dimensions, construction method | |
| | and material used for the construction of the | |
| | foundations, walls, floors, roofs, chimneys and various | |
| | parts of the building; | |
| | (ii) the form and dimensions of every watercloset, | |
| | urinal, earthcloset with flushing cistern, ashpit, | |
| | cesspool, septic tank, well and water tank constructed | |
| | in relation to the building; | |
| | (iii) the level of the lowest storey of the building in | |
| | relation to the level of any street adjoining the curtilage | |
| | of the building, the building site, other storeys and roof | |
| | of the building; | |
| | | |

| (iv) any other such information, as the competent authority may request. | |
|--|---|
| (c) (iv) the position of all tanks, wells, septic tanks, cesspools and pits and of all drains connected thereto and where there is a drainage system in the area, where the plot is located, the connection of the plot to such drainage system; and | |
| (v) the area of the plot and the area in square metres of existing and buildings intended to be erected; | |
| Part III Art. 5 (3) | |
| (b) where determined by the competent authority, provide and maintain appropriate health facilities for use by the workers employed at the construction site. | |
| | |
| Part IV – Heights and space around huildings | |
| | |
| In the case of buildings having a depth of more than 7,60 metres, there shall be provided in the rear an open space as follows: | |
| (a) when the building does not exceed 4,30 metres in height, the space will not be less than 5 square meters; | |
| (b) when the building exceeds 4,30 metres in height, for every additional 3,70 metres or part thereof, the space will be increased by 5 square meters. | |
| Provided always that the width of the space shall, in no case be less than 120 centimeters and that in cases of doubt the competent authority shall determine which part of any building shall be considered to be the rear, for the purposes of this paragraph. | |
| | |
| Part Ventilation of buildings | |
| Part V Art. 8 (1) A sufficient number of windows or openings shall be constructed in the wall of every storey of a domestic building, in such a manner and in such a position that each of the windows or openings provides efficient means of ventilation by direct communication with the external air. | |
| | authority may request. (c) (iv) the position of all tanks, wells, septic tanks, cesspools and pits and of all drains connected thereto and where there is a drainage system in the area, where the plot is located, the connection of the plot to such drainage system; and (v) the area of the plot and the area in square metres of existing and buildings intended to be erected; Part III Art. 5 (3) (b) where determined by the competent authority, provide and maintain appropriate health facilities for use by the workers employed at the construction site. Part IV - Heights and space around buildings Part IV Art. 7 (3) In the case of buildings having a depth of more than 7,60 metres, there shall be provided in the rear an open space as follows: (a) when the building does not exceed 4,30 metres in height, the space will not be less than 5 square meters; (b) when the building acceeds 4,30 metres in height, for every additional 3,70 metres or part thereof, the space will be increased by 5 square meters. Provided always that the width of the space shall, in no case be less than 120 centimeters and that in cases of doubt the competent authority shall determine which part of any building shall be considered to be the rear , for the purposes of this paragraph. Part V Art. 8 (1) A sufficient number of windows or openings shall be constructed in the wall of every storey of a domestic building, in such a manner and in such a position that each of the windows or openings provides efficient means of ventilation by direct communication with the |

| used as a working room, the competent authority may |
|--|
| not require the application of the above requirement, if satisfied that effectual ventilation, mechanical or |
| otherwise is provided. |
| |
| (2) Any habitable room must have a window or French door |
| which to open directly into the external air and such |
| window or door shall- |
| |
| (a) have a total area of not less than one-tenth of the |
| floor area of the room; and |
| (b) be so built that no less than the half of such window |
| or door may be opened. |
| |
| (3) Any habitable room must be not less than 2,60 meters |
| in height, measured from the floor to the lowest part of |
| the roof. |
| Provided that in the case of a sloping roof, the height |
| should not be less than 185 centimeters at the lowest |
| point and the average height not less than 2,60 meters. |
| |
| (4) No room that is regularly or occasionally used as a |
| bedroom will have a horizontal dimension of the floor |
| area of less than 2,45 meters. |
| rt V Art. 9 |
| Where a window of a habitable room opens into a yard |
| enclosed on three or more sides, the width of the enclosed |
| yard, measured from the face of the window to the opposite wall shall not be less than half the height of the wall, |
| measured from the level of the top of the window to the |
| eaves or top of the parapet of the opposite wall. |
| |
| Provided that the width of such yard shall not be less than 3 |
| meters and further that the superficial area of the yard shall |
| not be less than 10 square meters, if enclosed on three |
| sides, or 16 square meters, if enclosed on all sides. |
| rt V Art. 10 |
| Where a building yard is enclosed on all sides and the depth |
| of the yard (measured from the eaves or top of the parapet |
| of the lowest of the surrounding walls down to the floor |
| - |
| level of the ground storey of the building) exceeds its length |
| - |

| Part VIII Art. 17 | Handling of the rainwater |
|---|----------------------------------|
| Part VIII – Roof drainage system | Llondling of the |
| where doors must open outwards, these shall be so placed that no part of the doors projects beyond the building when opened outwards. | |
| (2) Every door or gate that opens directly onto a street shall be constructed and fixed so as to open inwards and not onto the street. Provided that in the case of exits of public buildings | Guidelines of Security of use |
| Part VI Art. 15 (1) Any window or part of a window, which, when opened outwards, projects over the roadway shall be at a height of not less than 12 feet above the level of the roadway this height should be measured towards the lowest part of such a window or part of a window. | |
| (2) Every such sunblind shall be constructed in such a manner so it can be folded, rolled or otherwise collapsed against the building wall. | Security of use |
| Part VI Art. 14 (1) Sunblinds, including any support, frame or other construction attached thereto and forming part thereof shall be placed at such height and shall open to such maximum projection as the competent authority may approve. | Guidelines of |
| Part VI – Projections | |
| Part V Art. 12 Every room in the lowest storey of a building which has a wooden floor, other than a floor made of wood and bedded directly onto cement concrete, shall have sufficient space underneath the floor to permit ventilation of the space thereunder by means of perforated bricks or by such other method as the competent authority may approve. | Moisture protection |
| Part V Art. 11 Every pantry or larder in a domestic building for the storage of perishable food will either be ventilated to the external air through an opening fitted with a cover to prevent flies from coming in so constructed as to allow sufficient flow of air, or be equipped with mechanic means of ventilation. | |
| yard by passages or other means of communication between the yard and the external air. | |

| (1) | The roofs of buildings shall be so constructed or formed as to permit the effictual drainage of rainwater by means of sufficient rainwater pipes of an adequate size | |
|---------|--|--|
| | so arranged, connected or fixed as - | |
| | (a) to ensure that rainwater flows away from the building without causing dampness in any part of the | |
| | walls or foundations of the building or those of an | |
| | adjacent building; and | |
| | (b) to prevent eaves dripping or the flowing of water from any height on any street. | |
| | | |
| (2) | The competent authority may require rainwater pipes to be connected to a drain or sewer or to a covered | |
| | channel formed beneath any public passage to connect | |
| | the rainwater pipes to the street gutter, or in any other | |
| | manner. | |
| (3) | Rainwater pipes must be afixed to the outside of the | |
| | external wall of the building or in recesses or chases | |
| | made or formed in such external walls or in such other | |
| | manner, as the competent authority may approve. | |
| (4) | This regulation shall not apply to any building which | |
| | does not front on a street, if appropriate and sufficient | |
| | arrangements are made to meet the requirements of paragraph (1)(a) of this regulation. | |
| | | |
| Part IX | C – Chimneys and flues | |
| Part IX | (Art. 18 | |
| (1) | For the purposes of the following regulations that | |
| | concern chimneys and flues, "flue" means any duct | |
| | through which smoke or other products of combustion | |
| | pass and "chimney" means the material surrounding the flue. | |
| (2) | Every chimney shall be constructed of- | |
| | (a) stones or clay bricks properly bonded and | |
| | constructed, not less than 115 millimeters thick, unless | |
| Drovid | the competent authority otherwise directs: ed that - | |
| | (I) the thickness of the upper side of the flue when its | |
| | course makes with the horizon an angle of less than 45 | |
| | degrees shall be at least 215 millimeters; and | |
| | (II) where two or more flues adjoin each other, the | |
| | division between them may not be less than 115 | |
| | millimeters; or | |

| (b) piping of iron, steel or other suitable metal, properly |
|---|
| jointed and securely fixed; or |
| (c) such other materials as the competent authority may approve. |
| Part IX Art. 19 |
| Where the surface of any material that surrounds a flue or fireplace opening is less than 5 centimeters from any timber or woodwork and the material is less than 215 millimeters thick, the material surface, if stones or bricks, must be properly rendered and if of other material, must be such as to afford adequate protection from fire to the timber or woodwork. |
| Part IX Art. 20 |
| The inside of a chimney, if constructed of stone or bricks must be properly rendered or pargeted as it is carried up and, if of other material, must be otherwise suitably protected, except that, where any part of the chimney is lined with fireclay or stoneware not less than 2 centimeters thick, or other not less suitable incombustible material of sufficient thickness, such part of the chimney as is so lined |
| need not be rendered or pargeted or otherwise protected. |
| Part IX Art. 21Where the back or outside of a chimney is not part of the outer face of an external wall and the material of which it is constructed is less than 215 millimeters thick, the back or outside of that part of the chimney which is below the sloping roof, flat roof or gutter must be properly rendered or otherwise suitably protected. |
| Part IX Art. 22 |
| Where a chimney is constructed in connection with any furnace, kiln, steam-boiler or closed fire used or intended to be used for any purpose of trade, business, or manufacture or is constructed in connection with any cooking range or cooking apparatus of a building used or intended to be used as a hotel, inn or restaurant, the flue of the chimney must be surrounded with brickwork or other solid and incombustible material of adequate thickness which, in the opinion of the competent authority, gives sufficient heat insulation. |
| Part IX Art. 23 |
| Where a flue is in a party wall and is not "back to back" with another flue, the material at the back of that part of the flue which is below the sloping roof, flat roof or gutter must not be less than 215 millimeters thick. |
| Part IX Art. 24 |

| A chimney must be carried up all round in brickwork or other |
|---|
| equally suitable material not less than 115 millimeters thick |
| to a height not less than 90 centimeters above the adjoining |
| sloping roof, flat roof or gutter, measured from the highest |
| |
| point of the line of junction with the sloping roof, flat roof or |
| gutter. |
| Part IX Art. 25 |
| A chimney or group of chimneys built together shall not be |
| built higher above the highest point in the line of junction |
| with the sloping roof, flat roof or gutter of the building than |
| a height equal to six times the least width of the chimney, or |
| six times the overall width of the group of chimneys |
| measured horizontally at right angles to its greatest |
| horizontal dimension, as the case may be, unless the |
| chimney or group of chimneys is otherwise made secure. |
| Part IX Art. 26 |
| It is prohibited to place timber or woodwork in a wall or |
| chimney breast within 23 centimeters of a flue or fireplace |
| opening. |
| opening. |
| Part X – Water supply and sanitation |
| Part X Art. 27 |
| A well constructed or sunk in connection to a building |
| |
| intended to supply water for human consumption must |
| meet the following requirements: |
| (a) it must be- |
| |
| (i) not less than 9 meters from any ashpit. |
| (ii) not loss than 12 maters from any partheless twith |
| (ii) not less than 12 meters from any earthcloset with |
| flushing cistern or privy. |
| (iii) not less than 10 matrix from any according to |
| (iii) not less than 18 meters from any cesspool, |
| soakaway or borehole latrine. |
| (b) the encound edition the could be a first frequencies |
| (b) the ground adjoining the well must for a distance of not |
| less than 120 centimeters in every direction be covered |
| with a watertight paving constructed so as to slope |
| away from the well; |
| |
| (c) the sides of the well must be rendered impervious for a |
| depth of not less that 185 centimeters from the level of |
| the adjoining ground; |
| |
| (d) a dug well must be so constructed as to be readily |
| accessible for cleansing; |
| |
| |

| (e) the top of a dug well must be surrounded by a curb extending not less than 15 centimeters above the level of the paving mentioned in paragraph (a) of this regulation and it must be so constructed as to prevent any surface water from flowing in the well. |
|--|
| (f) the lining tubes of a bored well must protrude not less than 15 centimeters above the level of the paving mentioned in paragraph (a) of this regulation; and such projection must be surrounded on the outer side with concrete not less than 15 centimeters thick for its full height. |
| (g) a well from which water is drawn by a bucket must be provided with- |
| (i) an efficient hinged wooden or iron cover which will close the well when not in use; and (ii) a stand for the bucket not less than 15 centimeters above the level of the paving mentioned in paragraph (a) of this regulation. |
| (h) a well from which water is drawn by a pump must be provided with a cover so fitted as to prevent surface water or other mater from going into the well. |
| Part X Art. 28 |
| A tank or cistern constructed or fitted in connection with a building and intended for the storage of water for human consumption or domestic purposes must comply with the following requirements: |
| (a) the tank must, if so required, be provided with an overflow pipe which shall- (i) be so placed and fitted as to prevent entry of insects. |
| (ii) not be connected to a sewer or drain. |
| (iii) have an open end to permit the overflow pipe to be used also as a warning pipe. |
| (b) the tank must be provided with a draw-off pipe, tap or other apparatus which must be not more than 2 inches from the bottom of the tank. |
| (c) the tank or cistern which is wholly or partly below the level of the adjoining ground must have its walls, floor and roof constructed of brick, stones or concrete and if |

| | constructed of a material which is not impervious to |
|---|--|
| | water, must be properly lined with an impervious |
| | material. |
| | |
| | (d) all pipes and fittings connected to the tank must be |
| | jointed and connected to it with suitable watertight |
| | joints. |
| | |
| | (e) every tank, whether above or below ground level must |
| | be so constructed as to prevent the entry of insects and |
| | must be provided with adequate means of ventilation |
| | and access for cleaning and all openings in the walls of |
| | the tank must be made mosquito-proof. |
| | Part X Art. 29 |
| | Septic tanks constructed in connection with a building must |
| | meet the following requirements: |
| | meet the following requirements. |
| | (a) the septic tank must be situated at least 50 centimeters |
| | |
| | from any building and- |
| | |
| | (i) in such a position that the outflow will not |
| | contaminate any well, spring or stream of water. |
| | |
| | (ii) in such a position, as to allow easy access for its |
| | cleaning and emptying. |
| | |
| | (b) the septic tank must be so constructed as to meet the |
| | requirements of regulation 28(c) and (d) and be of a |
| | design approved by the competent authority. |
| | |
| | (c) the septic tank must be of a capacity sufficient for its |
| | purpose and approved by the competent authority; |
| | |
| | (d) the outlet pipe from the septic tank must discharge the |
| | effluent over or into a filter or percolating pit and a |
| | dosing syphon must be provided, if the competent |
| | authority so requires; |
| | |
| | (e) the filter or percolating pit must be of such size, design |
| | and construction as may be approved by the competent |
| | authority ; |
| | |
| | (f) the effluent from the filter or percolating pit must be |
| | taken to such outfall or be disposed of in such manner |
| | as the competent authority may require. |
| | |
| | Part X Art. 30 |
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| · · · · · · · · · · · · · · · · · · · | | |
|---------------------------------------|--|--|
| | sspools, percolating pits and soakaway pits in connection h a building must- | |
| (a) | be situated in such a manner that they shall not, in the opinion of the competent authority, endanger the foundations or walls of any building. | |
| (b) | be at least 18 meters from a well, spring or stream of water. | |
| (c) | have no communication with the external air, unless allowed by the competent authority. | |
| (d) | be provided with a sufficient ventilator the open end of which must be fitted with a cover of copper wire gauze and in such a position that the escape of foul air into any building is effectively prevented. | |
| Part X | Art. 31 | |
| | water closet constructed or fitted in connection with a ilding must- | |
| (a) | have at least one of its side adjoining to an open space of not less than 5 square meters in superficial area and an opening of not less than 2000 square centimeters (0,20m ²), excluding the frame, which shall open directly into the external air. | |
| aut | Provided that in the case of a water closet constructed fitted in connection with any building, the competent thority may not require the application of the above quirement, if satisfied that sufficient ventilation is poided by mechanical means or otherwise. | |
| hav cor | Provided further that where a room has more than one ater closet, such room must be divided into cubicles, each ving a pan and the partitions or divisions must be so instructed as to allow the free circulation of air in the pm. | |
| (b) | be furnished with a soil pan which must be- | |
| | (i) of non absorbent material so constructed and fitted as to receive and contain sufficient water and to allow any filth to fall freely from the sides directly into the water. | |
| | (ii) be provided with a suitable and efficient trap. | |

| | escape by leakage or otherwise or be exposed to rain or the drainage of any foul water or liquid waste; | |
|--------|---|--|
| (b) | the receptacle must be of a capacity not exceeding 60.000 cubic centimeters (0,06cc); | |
| (c) | it must be provided with- | |
| | (i) a suitable vessel of sufficient capacity for dry earth or other appropriate deodorizing material so constructed and placed as to enable easy access for placing the necessary supply of the earth or other material; and | |
| | (ii) sufficient means for depositing the earth or other material to the excrements in the receptacle; | |
| (d) | it must meet the requirements of paragraphs (c) and (d) of regulation 33. | |
| Part X | Art. 35 | |
| (1) | For the purposes of this regulation, the term "sanitary convenience" includes a watercloset, earthcloset with flushing cistern and pit latrine. | |
| (2) | Buildings must be provided with sanitary conveniences as follows: | |
| (a) | every dwelling house must have at least one sanitary convenience; | |
| (b) | a building designed or used for human stay other than in divided apartments such as hotels, inns, guest rooms, hospices and lodgings must be provided with at lease one sanitary convenience per every 85 square meters of floor area; | |
| (c) | industrial buildings must be provided with at least one watercloset for each industry, trade or business carried on there and where more than 25 persons are employed or are likely to be employed in each such industry, trade or business, an additional watercloset must be available for every additional 25 persons or more. For the purposes of this provision, any fraction of twenty five shall be considered to be twenty five; | |
| (d) | where persons of both sexes are employed, the sanitary convenience for each sex must be so arranged that the | |

| interior is not visible, even when the door of such | |
|--|--|
| convenience is open, from any part that is accessible to | |
| persons of the other sex. If the conveniences for one sex | |
| adjoin those of the other sex, the approaches must be | |
| adequately separated. | |
| | |
| Part XI – Sewers | |
| Part XI Art. 36 | |
| The lowest storey of the building should be located at such a | |
| level and be constructed in such a manner, so that it possible to | |
| achieve efficient drainage through gravity. | |
| | |
| Part XI Art. 37 | |
| The sewers in relation with the building should meet the | |
| following requirements: | |
| | |
| (a) the pipes should be durable, furbished made of cast-iron or | |
| asbestos mortar or out of another material specifically | |
| approved by the competent authority. | |
| | |
| (b) the pipes should be placed with a slope not less than 1 to 40, | |
| | |
| and be equipped with suitable watertight joins. | |
| | |
| (c) the drainage pipes should not be placed in such a manner, so | |
| that they pass through underneath the building, without the | |
| written consent of the competent authority; whenever such a | |
| consent is not granted, the drainage pipe should be made of | |
| cast-iron or of another not less suitable material, surrounded by | |
| concrete, which will not be less than 10 centimeters wide and is | |
| placed in a straight line between the point of its entrance to the | |
| building and the exit point from it and a provision is made for | |
| | |
| access points at each of these two points. | |
| (d) every sewer branch-pipe should be connected with the main | |
| | |
| sewer slantwise, towards the flow direction of the main sewer. | |
| (a) the piper chould have sufficient means to apprece them | |
| (e) the pipes should have sufficient means to approach them | |
| and be of such a material, size and construction, as the | |
| competent authority may request. | |
| (f) who now or the cower passes underpeath as through a wall | |
| (f) whenever the sewer passes underneath or through a wall, | |
| the latter should be protected and discharged from the burden | |
| of the wall through a discharging apse or a stiffener shaped | |
| within the wall directly above the sewer. | |
| | |
| (g) every opening of a pipe, other or a downstream pipe of the | |
| watercloset or a ventilation pipe that needs to be equipped | |
| with a water trap, should be equipped with a suitable and | |

| efficient water trap of a type that is approved by the competent authority. | |
|--|--|
| (h) a bilge water trap (tank) should be adjusted to every sewer that is emptied within a drainage tank or a septic tank, as close as practically possible to the drainage tank or the septic tank. | |
| (i) the sewers that are intended for the drainage of unclean waters from a building, should be equipped with at lease one ventilation pipe, situated as close to the building and as far from the discharge point as practically possible. | |
| Provided that a downstream pipe of a watercloset or a pipe of unclean sediment from the lavatory-pan, constructed in accordance with these regulations may be used as a sewer ventilation pipe, if its placement is in accordance with this regulation. | |
| (j) the ventilation pipe may be reaching such a height and in such a manner, as to hinder efficiently the leakage of any foul air from the sewers towards any building; its open edge should be covered with a wire netting made of copper or zinc-plated iron. | |
| Part XI Art. 38 Lavatory downstream pipes, lavatory downstream pipes that are used as ventilation pipes as well and ventilation pipes adjusted within or on the building should- | |
| (a) be made out of rolled leaden pipe or out of a pipe made of hard cast-iron or of other such material and construction as the competent authority may approve; | |
| (b) be easily accessed and have sufficient number of openings at suitable spots for cleaning purposes; | |
| (c) be placed on an external building wall, or within pipelines or canals within the building's wall and whenever they are positioned, they should be combined and sorted in teams; the pipelines or the canals have such a shape and are processed in such a manner as to satisfy the competent authority; | |
| (d) their length is of circular cross-section and they have inner diameter not less than 8 centimeters or such a maximum diameters as the competent authority may request, if, in its opinion, this is justified under the circumstances; whenever the diameter of the outlet of the water trap, the sediment pan, | |

| bidet or urinal connected with any such a pipe, exceeds 8 centimeters, the pipe should have a diameter not less than the | |
|--|--|
| diameter of this outlet. | |
| Part XI Art. 39 (1) For the purposes of the present regulation, the term "sanitary facility" includes a watercloset, sediment pan, urinal or bidet. | |
| (2) Whenever two or more sanitary facilities are drained within solely one downstream pipe of lavatory or a pipe of unclean water, the water trap of each such installation, should be ventilated with clean external air through a ventilation branch- pipe, connected to the water trap in question with the main ventilation pipe; this main ventilation pipe should be vertical at a height not less than the height of the downstream pipe of lavatory or the pipe of unclean fluids, with which the water traps in question are connected or may be connected with the downstream pipe or the pipe of unclean fluids at a point above the level of the highest water trap. | |
| (3) Branch-pipes and main ventilation pipes should have a diameter not less than 5 centimeters along their length and should meet the requirements of regulation 38. | |
| (4) The joining of the ventilation pipe with the water trap, branch-pipe, downstream pipe or pipe of unclean fluids should be- | |
| (a) at a point, that is not less than 8 centimeters and not more than 30 centimeters form the highest point of the water trap; | |
| (b) on that side of the hydraulic lid, which is closest to the downstream pipe or the pipe of unclean fluids; | |
| (c) at the direction of the flow. | |
| Part XI Art. 40 (1) For the purposes of the present regulation, the term "sanitary facility" includes a bath, wash-basin and any basin. | |
| (2) A pipe of unclean fluids that is connected with a sanitary facility and a ventilation pipe should be made out of rolled lead, cropp or iron or out of such a material as the competent authority may approve and safely adjusted and positioned with a sufficient slope. | |

| (3) The inner diameter of the pipe of unclean fluids should not be less than 4 centimeters or, where two or more sanitary facilities are connected to it, of such a maximum diameter as the competent authority may require. | |
|--|--|
| (4) Every pipe of unclean fluids should be equipped directly underneath its joining with the sanitary facility with a water trap that provides a depth of hydraulic lid of not less than 4 centimeters. | |
| (5) Where two or more sanitary facilities are positioned in a row, the pipe of unclean fluids of each facility may be emptied without the insertion of a water trap in an open canal made out of lustrous ceramic material or of another suitable material, shaped or positioned within or above the ground that is directly underneath the sanitary facilities and which discharges within a suitable and efficient water trap of a type that is approved by the competent authority. | |
| (6) Where this is requested by the competent authority, the water trap of a sanitary facility should be ventilated through a ventilation pipe, positioned vertically in such a position and at such a height, as the competent authority may request; where two or more sanitary facilities that are applied at the various floors, are connected with such a pipe, the pipe should continue vertically at a height not less than the height of the unclean fluids pipe, with which the sanitary facilities in question are connected, or may be connected with the pipe of unclean fluids at a point above the level of the highest facility. | |
| (7) Branch and main ventilation pipes should have along their length a diameter of not less than 2/3 of the inner diameter of the branch and the main pipe of unclean fluids. | |
| | |
| Part XII. – PUBLIC BUILDINGS Part XII Art. 42 | |
| In every public building, the floors, scales, terraces, balconies, roofs and all other parts of it that are used by the public should be made out of fire-resistent material and meet the following requirements: | |
| (a) there will not be more than two balconies or horizontal sub- divisions (mezzanines) above the lowest ground that is used by the public as a performance room; | |

| (b) the height measured from this lower that the lower state that the lower state the state of t | |
|--|----------------------|
| (b) the height, measured from this lowest ground to the bottom of the ground of the balcony that is directly above it, will not me less than 3 meters; | |
| (c) the height measured from the ground of the first balcony to the bottom of the ground of the second balcony, if any, will not be less than 2,60 meters; | |
| (d) the height between any part of the ground of the highest balcony and the roof that is directly above it, will not be less than 3 meters. | |
| Part XII Art. 47 In every public building all stairs to be used by the public- | |
| (h) should be ventilated and lightend sufficiently through windows or skylights that open directly towards to external air. | |
| Part XII Art. 51 Every public building, not being a public worship place, should be equipped with lavatories of hydraulic drainage, sink and urinals, constructed and positioned in such a manner so that they may be used separately by men and women in a manner that is to the satisfaction of the competent authority and in numbers that are proportional to the total number of persons that may be present in the building either in sitting or standing, as follows: | Number of toilets |
| Waterclosets, one for every 200 persons or less; Urinals, one for every 200 persons or less; Sinks, one for every 200 persons or less. | |
| Part XII Art. 53 Every part of the public building should be ventilated sufficiently in a manner that is approved by the competent authority. | cimema |
| Part XII Art. 55 (1) The change rooms should meet the following requirements: | |
| (a) they will be lightend and ventilated sufficiently through windows on the external walls and they will be separated from the stage and from all other parts of the building through solid walls made of clay bricks, stones or concrete, the thickness of which will not be less than 215 millimeters; | |
| (b) they will have only such communication means with the stage and the other parts of the building, as the competent authority may approve; | |

| material, complying with the regulation 54(3). Part XII Art. 58 Fireplaces and heaters should not be permitted in any part of the performance room or the stange in a public building | |
|--|--|
| will be at least 215 millimeters thick. At least one wall of each such chamber should be an external wall, all openings between such chambers and other parts of the building should be equipped with doors made of fire-resisting | |
| chambers, made out of fire-resisting material, separated from each other and from all other parts of the building by solid walls made of clay bricks, stones or concrete, which | |
| Part XII Art. 57 Every boiler, energy generator and acetylene tank, in relation with this building should be placed in ventilated | |
| (4) There should be lavatory and sink facilities to be used by the personnel, in such numbers and at such positions as the competent authority may request. | |
| (3) All such rooms should be suffiently ventilated in a manner that is to the satisfaction of the competent authority. | |
| (2) All openings in such walls should be equipped with fire- resisting doors that meet the requirements of regulation 54(e) and are of such sizes and the competent authority may approve. | |
| 56(1) Every laboratory, storing room, cloakroom, painting room and other rooms that are used in relation with the stage and that are a part of such a building, should be separated from the stage and from other parts of the building by solid walls made of clay bricks, stones or concrete, not less than 215 millimeters thick and they should be situated in positions in such a manner as to satisfy the competent authority. | |
| Part XII Art. 56 | |
| (2) There should be separate waterclosets, sinks and urinals to be used by the artists and the orchestra members, in such numbers and built and placed in such a manner as the competent authority may request. | |
| (d) they will not be positioned at a level that is lower than one floor form the ground floor. | |
| (c) they will have a separate exit leading directly to a street; the doors of these exits will be equipped solely with automatic locks; | |

| - | | · · · · · · · · · · · · · · · · · · · |
|------------------------|--|---------------------------------------|
| | and any open fireplace or heater in any other part of such a | |
| | building should be sufficiently protected by strong | |
| | immovable metal fenders in a manner that satisfies the | |
| | competent authority. | |
| | Part XII Art. 61 | |
| | | |
| | (3) (f) In the case that the parking space is in the | |
| | underground of the building, the slope of the sloping | |
| | level of the vehicle access will be at least with a | |
| | proportion 1:5 and there will be an easy way for the | |
| | vehicles to enter in and exit from the underground and a | |
| | suitable ventilation system, to the satisfaction of the | |
| | competent authority. | |
| | (4) (a) (ii) there is a suitable ventilation system in the | |
| | underground in question, to the satisfaction of the | |
| | | |
| | competent authority; | |
| | | |
| (13)-R.A.A. | The Town and Country Planning (Accident Hazards Related to | |
| 759 2003 | Dangerous Substances) Regulations of 2003 | |
| (19)-R.A.A. | (a) The Town and Country Planning (Government Industrial | |
| (19)-R.A.A. 334_200 | Areas) Special Development Order of 2009 | |
| 9 & | | |
| | (h) The Terry and Country Dispersion (Country and Industrial | |
| R.A.A. | (b) The Town and Country Planning (Government Industrial | |
| 27_2014 | Areas) (Amending) Special Development Order of 2014 | |
| | 4. (3) iii. In the event that the permissible distances are | |
| | smaller than the distances specified, the comforts of the | |
| | development of the adjacent properties and of the area | |
| | shall be preserved. Particular emphasis shall be placed on | |
| | substantial factors, such as adequacy of lighting, solar | |
| | exposure and ventilation, securing the required conditions | |
| | for fire safety, movement of vehicles and loading/ | |
| | unloading, as well as securing the necessary parking spaces. | Lighting and |
| | | ventilation |
| | For this purpose, the applicant shall submit documented | |
| | evidence that justify approval of the above. Prior to | |
| | receiving the relevant approval by the Planning Authority, | |
| | the positive views of the Permanent Secretary of the | |
| | Ministry of Commerce, Industry and Tourism, the Director of | |
| | the Labour Inspection Department and the Director of the | |
| | Fire Service shall be obtained. | |
| (26)- | | |
| Mandate1_2 | The Terring and Country Dispusing Mandata 1 of 2002 | Student Dorms |
| 003 | The Town and Country Planning Mandate 1 of 2003 | Student Bornis |
| _ | 3.5. Sanitary Facilities | |
| | | |
| | 3.5. Sanitary Facilities In cases where no sanitary facilities are provided for each | |
| | 3.5. Sanitary Facilities In cases where no sanitary facilities are provided for each student dorm unit, there shall be a provision for common | |
| | 3.5. Sanitary Facilities In cases where no sanitary facilities are provided for each | |

| | 3.6. Minimum Room sizes 3.6.1. The minimum student living space area shall be 8 sq.m. If this includes also sanitary facilities, the minimum size shall increase to 13 sq.m | |
|----------------------------|---|--|
| (27)- Mandate1_2 005 | The Town and Country Planning Mandate 1 of 2005 | Prefabricated and wooden prefabricated buildings |
| | No requirements found | |
| (39)- Mandate 1_2014 | The Town and Country Planning Mandate 1 of 2014 | Use of renewable sources of energy (Document still pending) |
| | No requirements found | |

3.3. Overall impression and general remarks

The building regulations are very detailed in some areas; in other areas, the technical specifications are very indeterminate.

This gives the impression that there are no standards or technical regulations for some areas. An exception are the "Eurocodes".

In the case of fire protection, reference is made to old terminology.

The sanitary facilities and the water supply show that not all areas have yet been developed.

Environmental protection and / or sustainability has not yet reached this importance, which is necessary today.

The "Law and Regulations of Drainage Systems" are missing for further assessment of sewage.

3.4. Missing requirements

There are no regulations for the following topics.

- Garbage places
- Protection against hazardous immissions
- Storage of dangerous substances
- Size of windows (natural lighting)

Regulations have been to discuss with the stakeholders

3.5. Unequal detailing of different topics

The detailing of the individual technical regulations is very different depending on the topic.

3.6. Topic 3

Survey of constructional standards in Cyprus.

3.7. Topic 4

Extension of the definitions of the new individual terms

4. Protection against noise (Ferk)

4.1. Introduction

The Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 refers to 7 "Basic Requirements for Construction Works". "Protection against noise" is the 5th Basic Requirement" which is described in Annex I of the mentioned Regulation as follows:

5. Protection against noise

The construction works must be designed and built in such a way that noise perceived by the occupants or people nearby is kept to a level that will not threaten their health and will allow them to sleep, rest and work in satisfactory conditions.

Actually a better heading would be "sound insulation, room acoustics and vibration". In order to meet this goal, Member States normally provide country-specific requirements in the national building construction sector.

Aim of this report is to have a review of the submitted legislation documents concerning requirements "sound insulation, room acoustics and vibration".

4.2. Review of submitted documents

As first task an overview reading of the following pieces of legislation was performed. A further column is added to mention related topics or review remarks.

List of Documents. In case of noise control related contents a remark is given in the column "Noise control related contents"

| | A/ | File name | Law /Regulations /Order | Comments | Noise control |
|----------------------------------|----|----------------------|---|----------|---|
| | A | | /Mandate | | related Contents |
| & ENERGY PERFORMANCE OF BULDINGS | 1 | (1) StrBLaw_Apr15_EN | Consolidated version of the Streets and Buildings Law 2006- 2015 | | 4 of 115/86(b) No permit will be issued(ii) it will be used in such a manner as not to have unfavorable effects on <u>public health or</u> comfortable way of |
| STREETS AND BUILDINGS & | 2 | (2) StrBReg_Apr15_EN | Consolidated version of the Streets and Buildings Regulations 2006-2015 | | Definitions as "educational institution" "external side of a street" "Eurocodes" "habitable room" "party wall" "domestic building" External noise (page 15/99) (3) During the course of any construction project, the owner must- (a) always take any measures necessary in order to ensure the free and safe use of the street by the public and the |

| A/ A | File name | Law /Regulations /Order /Mandate | Comments | Noise control related Contents |
|---------|-----------------------|--|----------|---|
| | | | | protection of the neighbors from any possible damage or <u>nuisance</u> , |
| | | | | Remark: Requirements for chimneys (38/99): no requirements for noise control foreseen (the thicknesses given will not be satisfying in every case |
| | | | | Remark 48/99 37 (a) "asbestos mortar"!! |
| | | | | Part XIIC. (75/99) hearing disabilities not mentioned (rem: not in every case in other regulations included) |
| 3 | (3)EnergyPerfLaw_2009 | Consolidated version of the Energy Performance of Buildings Law 2006-2009 | | No |
| 4 | (4)EnergyPerfReg_2014 | Consolidated version of the Streets and Buildings (Energy Performance of Buildings) Regulations 2006-2014 | | No |
| 5 | (5)R.A.A. 163_2009 | The Energy Performance of Buildings (Inspection of air conditioning systems) Regulations of 2009 | | No |
| 6 | (6)R.A.A. 164_2009 | The Energy Performance of Buildings (Energy Certification of Buildings) Regulations of 2009 | | No |
| 7 | (7)R.A.A. 446_2009 | The Energy Performance of Buildings (minimum requirements for the energy | | No |

| | A/ A | File name | Law /Regulations /Order /Mandate | Comments | Noise control related Contents |
|---------------------------|---------|-----------------------------|---|----------|---|
| | | | performance of buildings) Order of 2009 | | |
| TOWN AND COUNTRY PLANNING | 8 | (8) TownPlanningLaw_2015 | Consolidated version of The Town and Country Planning Law 1982-2015 | | Part 1 – Preliminary "building" "building Shell" "open space" "Island plan" – are there any noise control items included? and other matters of more than local importance 9. (ix) the safety and of the personswho live in or pass by it 6© 0f 24/78 11. (1) The purposes of a Local Plan shall be to secure orderly development in the interests of the health, amenity, <u>convenience and</u> general welfare of the community ? town and country planning? Dedication of areas? general use zones for land and buildings and the communications necessary both to protect such zones and serve them "Area scheme" |

| A/ A | File name | Law /Regulations /Order /Mandate | Comments | Noise control related Contents |
|---------|---|---|----------|--------------------------------|
| 9 | (9)-R.A.A. 163_1973 | The Town and Country Planning (Town Planning Board) Regulations of 1973 | | No |
| 10 | (10)-R.A.A. 119_1976 | The Town and Country Planning (Improvement Fee) Regulations of 1976 | | No |
| 11 | (11)-R.A.A. 56_1990 | The Town and Country Planning (Compensation) Regulations of 1990 | | No |
| 12 | (12)-R.A.A. 309_1999 & R.A.A. 120_2005 | The Town and Country Planning (Deviations) Regulations of 1999 and 2005 | | No (some listings) |
| 13 | (13)-R.A.A. 759_2003 | The Town and Country Planning (Accident Hazards Related to Dangerous Substances) Regulations of 2003 | | No |
| 14 | (14)-R.A.A. 399_2008 | The Town and Country Planning (Accident Hazards Related to Dangerous Substances) (Amending) Regulations of 2008 | | No |
| 15 | (15)-R.A.A. 29_2013 | The Town and Country Planning (Fees) Regulations of 2013 | | No |
| 16 | (16)-R.A.A. 358_1990 | The Town and Country Planning (Governmental Livestock Areas) Special Development Order of 1990 | | No |
| | (17)-R.A.A. 859_2003 & | (a) The Town and Country Planning General Development Order of 2003 (b) The Town and Country | | No |
| 17 | R.A.A. 451_2014 | Planning (Government Industrial Areas) (Amending) Special Development Order of 2014 | | |
| 18 | (18)-R.A.A. 454_2007 | The Town and Country Planning (Delegation of Powers) Order of 2007 | | No |

| | A/ A | File name | Law /Regulations /Order /Mandate | Comments | Noise control related Contents |
|---------------------------|---------|--|---|--|--|
| | | | (a) The Town and Country Planning (Government Industrial Areas) Special Development Order of 2009 | | No |
| | 19 | (19)-R.A.A. 334_2009 & R.A.A. 27_2014 | (b) The Town and Country Planning (Government Industrial Areas) (Amending) Special Development Order of 2014 | | |
| | 20 | (20)-R.A.A. 247_2012 | The Town and Country Planning (Construction of a New Greenhouse) Special Development Order of 2012 | | No |
| U | 21 | (21)-R.A.A. 462_2014 | The Town and Country Planning (Residential Development on Plots of Land and Plots of Land under Construction) Special Development Order of 2014 | | Scope: 2. a) Defined residential area –code "Ka"; "H" b) Defined touist area - code "TA" |
| TOWN AND COUNTRY PLANNING | 22 | (22)-Mandate 1_1994 | The Town and Country Planning Mandate 1 of 1994 | Adequate access | No |
| COUNTR | 23 | (23)-Mandate1_1996 | The Town and Country Planning Mandate 1 of 1996 | Purchase of parking areas | No |
| VN AND | 24 | (24)-Mandate1_2000 | The Town and Country Planning Mandate 1 of 2000 | Public hearing | No |
| TO | 25 | (25)-Mandate1_2001 | The Town and Country Planning Mandate 1 of 2001 | Beachfront sidewalk | No |
| | 26 | (26)-Mandate1_2003 | The Town and Country Planning Mandate 1 of 2003 | Student Dorms | No (student dorms) |
| | 27 | (27)-Mandate1_2005 | The Town and Country Planning Mandate 1 of 2005 | Prefabricated and wooden prefabricated buildings | Not explicit to archive the <u>planning</u> , architectural and <u>environmental</u> <u>goals</u> |

| A/ A | File name | Law /Regulations /Order /Mandate | Comments | Noise control related Contents |
|---------|---------------------|--|---|---|
| 28 | (28)-Mandate2_2005 | The Town and Country Planning Mandate 2 of 2005 | Registration Dossier of Town Planning Applications | No |
| 29 | (29)-Mandate1_2006 | The Town and Country Planning Mandate 1 of 2006 | Developments of the Electricity Authority Cyprus | No |
| 30 | (30)-Mandate2_2006 | The Town and Country Planning Mandate 2 of 2006 | Guidance to Planning Authorities for Power Plants using Renewable Energy Sources | 4.2.2 following conditions shall apply for siting of a wind farm: b) the level of noise pollution must be within the specified limits measured at the respective Zone limits - See Footnote X1) |
| 31 | (31)-Mandate3_2006 | The Town and Country Planning Mandate 3 of 2006 | Radio communication stations | No |
| 32 | (32)-Mandate1_2007 | The Town and Country Planning Mandate 1 of 2007 | Equal treatment of providers of electronic communications | No |
| 33 | (33)-Mandate2_2007 | The Town and Country Planning Mandate 2 of 2007 | Public hearing | No |
| 34 | (34)-Mandate1_2008 | The Town and Country Planning Mandate 1 of 2008 | Handling applications | No |
| 35 | (35)-Mandate2_2008 | The Town and Country Planning Mandate 2 of 2008 | Special Committees for Exercising Aesthetic Control | No |
| 36 | (36)-Mandate 3_2008 | The Town and Country Planning Mandate 3 of 2008 | Acquisition of public green space | No |
| 37 | (37)-Mandate 4_2008 | The Town and Country Planning Mandate 4 of 2008 | Public hearing | No |
| 38 | (38)-Mandate 1_2011 | The Town and Country Planning Mandate 1 of 2011 | Special procedural measures for self- control | No |
| 39 | (39)-Mandate 1_2014 | The Town and Country Planning Mandate 1 of 2014 | Use of renewable sources of energy (Document still pending) | |

Table Footnotes

X1) The following table is included in this requirements:

| Zone Type | Noise level during the day (DB (A)) | Noise level during the night (DB (A)) |
|---|--|--|
| Industrial Zone or Area | 70 | 70 |
| Craft Zone or Area | 65 | 50 |
| Residential or Tourist Zone (excluding areas with recreational and entertainment use prevailing) | 50 | 35 |
| Resting homes, sanatoria and hospitals | 45 | 35 |

4.3. Summary of Noise Control related Contents of the reviewed documents

The Street and Buildings Law revision 2015 includes some generic requirements, that are related to the "Basic Requirement" 5 of the Regulation (EU) No. 305/2011. "(iii) it will be used in such a manner as not to have unfavorable effects on public health or

"(ii) it will be used in such a manner as not to have unfavorable effects on <u>public health</u> or comfortable way of living of the residents of the area"...

and further

*"*15. The competent authority may, through an order, close down any building, which, according to the judgement of the authority is not fit for human habitation due to <u>unhealthy</u> circumstances,"

As the 5th basic requirement of the Regulation (EU) No. 305/2011 also gives a connection between noise protection in terms of health protection, it can be derived, that the mentioned statements included in StrBLaw_Apr15_EN also are related to noise protection and therefore to sound insulation, room acoustic requirements and vibration protection.

Some of the Files contain a part of the definitions, which are also necessary for noise protection requirement wording (StrBRe_Apr15_EN; TownPlanningLaw_2015)

In (27)-Mandate1_2005 for prefabricated and wooden prefabricated buildings it is mentioned "...to archive the planning, architectural and environmental goals" Nevertheless there are no hints related to noise protection explicit mentioned as a planning goal.

In (30)-Mandate2_2006 (Guidance to Planning Authorities for Power Plants using Renewable Energy Sources) there are precise requirements given for a limitation of ambient noise as "zone limits".

Further provisions related to this topic could not be found.

4.4. Further reviewed documents

To get an impression of usual building constructions in Cyprus a short investigation was done. Some accurate documents and papers could be found:

4.4.1. State of the Art – Buildings in Cyprus

Lapithis P., Efstathiades C., Hadjimichael G.: State of the Art: Cyprus; Cost Action C16 Improving the Quality of Existing Urban Building Envelopes, 2007. ISBN 978-1-58603-734-5, IOS Press.

This report shows, that a lot of residential buildings are built in a typical southern Europe construction method, with reinforced concrete beams and plates as a load bearing structure combined with infills of single layer brick walls, coated with plaster. Roofs are usually flat concrete slabs with light concrete or screed and a waterproofing.

Quotations of that report:

"There are not any legal obligation to submit designs or calculation for thermal, acoustic, light and fire performance of a conventional building within the application form".

"A high percentage (69% of the survey participants experience bothersome noises from the outside, probably as a result of single glazing and poorly insulated wall surfaces which not only allow heat enter and exit freely, but also allow noise to penetrate with little difficulty.

"Technical recommendations are compulsory for the prefabricated buildings according to order 2/2001 issued by the Minister of Interior, who is in charge for Town and Country Planning Law.

| Thermal Insulation (U valu | $1e in W/m^2 °K$ |
|----------------------------|------------------|
| Walls | 1,7 |
| Roof | 2,0 |
| Slab between floors | 2,0 |
| Noise insulation (for 500H | z in dB) |
| Walls | 45 |
| Roof | 45 |
| Slab between floors | 50 |

It is not clear where the above mentioned recommendations are included, but these are the only one that could be found during the preparation of this inception paper. As it is not clear, if such an official recommendation really exists, the contents should not be commented further.

4.4.2. International comparative study

Rasmussen B.: Sound Insulation between Dwellings – Overview of the Vaiety of Descriptors and Requirements in Europe, Forum Acusticum 2001, Aalborg, Denmark

Within this paper it was stated, that there are no regulatory requirements concerning Airborne sound insulation and impact sound insulation for Cyprus.

| Status March 2011 ^{(1), (2)} | | Multi-storey housing | Row housing |
|---------------------------------------|-------------------------------------|-------------------------|----------------|
| Country (15) | Descriptor (3) | Req. [dB] | Req. [dB] |
| Austria | D _{nT.w} | ≥ 55 | ≥ 60 |
| Belgium | D _{nT.w} | ≥ 54 | ≥ 58 |
| Bulgaria | R'w | ≥ 53 | ≥ 53 |
| Croatia | R'w | ≥ 52 | ≥ 52 |
| Cyprus (13) | N/A | N/A | N/A |
| Czech Rep. | R'w | ≥ 53 | ≥ 57 |
| Denmark | R'w | ≥ 55 | ≥ 55 |
| England & Wales | D _{nT.w} + C _{tr} | ≥ 45 | ≥ 45 |
| Estonia | R'w | ≥ 55 | ≥ 55 |
| Finland | R'w | ≥ 55 | ≥ 55 |
| France | D _{nT.w} + C | ≥ 53 | ≥ 53 |
| Germany (10) | R'_ | ≥ 53 (8) | ≥ 57 |
| Greece (14) | No info | No info | No info |
| Hungary | R' _w + C | ≥ 51 | ≥ 56 |
| Iceland (6) | R' _w (6) | ≥ 55 (6) | ≥ 55 (6) |
| Ireland | D _{nT.w} | ≥ 53 (8) | ≥ 53 |
| Italy | R'w | ≥ 50 | ≥ 50 |
| Latvia | R'w | ≥ 54 | ≥ 54 |
| Lithuania | DnT.w or R'w | ≥ 55 | ≥ 55 |
| Luxembourg (13) | N/A | N/A | N/A |
| Macedonia FYR (13) | N/A | N/A | N/A |
| Malta (13) | N/A | N/A | N/A |
| Netherlands | I _{butk} (4) | ≥0 | ≥ 0 |
| Norway | R' _w (7) | ≥ 55 (7) | ≥ 55 (7) |
| Poland | R'_+ C | ≥ 50 (8) | ≥ 52 (9) |
| Portugal | D _{nT.w} | ≥ 50 | ≥ 50 |
| Romania (10) | R'w | ≥ 51 | ≥ 51 |
| Scotland | Dotw | ≥ 56 | ≥ 56 |
| Serbia | R'_ | ≥ 52 | ≥ 52 |
| Slovakia | R'w | ≥ 52 | ≥ 52 |
| Slovenia | R'w | ≥ 52 | ≥ 52 |
| Spain | D _{nT.A} (5) | ≥ 50 | ≥ 50 |
| Sweden | R', + C50-3150 | ≥ 53 | ≥ 53 |
| Switzerland | D _{nT.w} + C | ≥ 52 (11) | ≥ 55 |
| Turkey (12) | N/A | N/A | N/A |

Table II: Airborne sound insulation between dwellings - Main requirements in 35 European countries (1), (

Notes

Overview information only. Detailed requirements and conditions are found in the building codes. All data to be verified/corrected in 2011. (1)

- Bulgaria, Croatia, Cyprus, Greece, Luxembourg, Macedonia FYR, Malta, Romania, Scotland, Serbia, Turkey are new countries added in (2) March 2011. The original study for 24 countries is from 2008 [2]. Data for CZ, IS, PT have been updated due to revision of building codes.
- No generally applicable conversion between the different descriptors exists, as the relations depend on characteristics of rooms and (3) constructions. Exact conversion can only be made in specific cases. (4)
- Iuck = R'w + C 52 dB. Ref. NEN 5077:2006.
- (5) D_{nTA} = D_{nTw} + C. Ref. DB-HR CTE. Corrected compared to [2].
- Proposal, approval expected end 2011, cf. [8]. For present regulations, (6) see [2].
- (7) It is recommended that the same criteria are fulfilled by R'_w + C₅₃₋₅₀₀₀.
- Horizontal, requirement for vertical is 1 dB higher (Bulgaria, Germany, (8) Poland) / lower (Ireland).
- (9) 55 dB recommended.
- (10) Under revision. In Germany, use of DnT,w has been proposed.
- (11) Flats for rent. If owned by occupants, same limit as for row housing.
- (12) No regulatory requirements. Requirements in preparation.
- (13) No regulatory requirements. In Luxembourg, most often limits from Belgium or other neighbouring countries are applied, dependant on the consultant.
- (14) No information available.
- (15) Although England & Wales and Scotland are parts of UK, they are listed as separate countries due to different requirements.

| Table III: Impact | sound insu | lation between | n dwellings |
|-------------------|------------|----------------|----------------------------|
| - Main requirem | ents in 35 | European cou | ntries ^{(1), (2)} |

| Status march 2011 | | Multi-storey housing | Row housing |
|--------------------|---------------------|-------------------------|----------------|
| Country (15) | Descriptor (3) | Req. [dB] | Req. [dB] |
| Austria | L'at.w | ≤ 48 | ≤ 43 |
| Belgium | L'at.w | ≤ 58 (4) | ≤ 50 |
| Bulgaria | L'aw | ≤ 53 | ≤ 53 |
| Croatia | L' _w (8) | ≤ 68 | ≤ 68 |
| Cyprus (13) | N/A | N/A | N/A |
| Czech Rep. | L' _{n.w} | ≤ 55 | ≤ 48 |
| Denmark | L' _{n.w} | ≤ 53 | ≤ 53 |
| England & Wales | L'ata | ≤ 62 | None |
| Estonia | L'nw | ≤ 53 | ≤ 53 |
| Finland | L'n.w (7) | ≤ 53 (7) | ≤ 53 (7) |
| France | L'at.w | ≤ 58 | ≤ 58 |
| Germany (10) | L' _{n.w} | ≤ 53 | ≤ 48 |
| Greece (14) | No info | No info | No |
| Hungary | L' _{n.w} | ≤ 55 | ≤ 45 |
| Iceland (6) | L' (6) | ≤ 53 (6) | ≤ 53 (6) |
| Ireland | L'at.w | ≤ 62 | None |
| Italy | L'aw | ≤ 63 | ≤ 63 |
| Latvia | L'nw | ≤ 54 | ≤ 54 |
| Lithuania | L'aw | ≤ 53 | ≤ 53 |
| Luxembourg (13) | N/A | N/A | N/A |
| Macedonia FYR (13) | N/A | N/A | N/A |
| Malta (13) | N/A | N/A | N/A |
| Netherlands | I _{co} (5) | ≥ +5 | ≥ +5 |
| Norway | L' (7) | ≤ 53 (7) | ≤ 53 (7) |
| Poland | L'nw | ≤ 58 | ≤ 53 |
| Portugal | L'at.w | ≤ 60 | ≤ 60 |
| Romania (10) | L'aw | ≤ 59 | ≤ 59 |
| Scotland | L' _{nT,w} | ≤ 56 | None |
| Serbia | L' _{nw} | ≤ 68 | ≤ 68 |
| Slovakia | L' _{nw} | ≤ 58 | ≤ 58 |
| Slovenia | L'nw | ≤ 58 | ≤ 58 |
| Spain | L'at.w | ≤ 65 | ≤ 65 |
| Sweden | L'n.w + C1.50-2500 | ≤ 56 (9) | ≤ 56 (9) |
| Switzerland | L'nT.w + C1 | ≤ 53 (11) | ≤ 50 |
| Turkey (12) | N/A | N/A | N/A |

Notes

- (1) Overview information only. Detailed requirements and conditions are found in the building codes. All data to be verified/corrected in 2011.
- (2) See note (2) in Table II.
- (3) No generally applicable conversion between the different descriptors exists, as the relations depend on characteristics of rooms and constructions. Exact conversion can only be made in specific cases.
- (4) From "non-bedrooms" outside the dwelling to a bedroom ≤ 54 dB is required.
- $$\begin{split} I_{co} &= 59 (L_{crt,w}^{*} + C) \ dB \approx 70 L_{crt,w}^{*} \ dB \ for \ bare \ concrete \ floors \ or \ I_{co} \\ 59 L_{crt,w}^{*} \ dB \ for \ other \ floors \ like \ wooden \ floors, \ floating \ floors \ and \ floors \ with \ soft \ coverings. \ Ref. \ NEN \ 5077:2006. \end{split}$$
 (5) Ico = 59 - (L'
- (6) Proposal, approval expected end 2011, cf. [9]. For present regulations, see [2].
- (7) Recommended that the same criteria are fulfilled by L'n.w + C150-2500.
- (8) L' not defined in ISO 717-2. It is assumed to be L'
- (9) The same criteria shall also be fulfilled by L'ow.
- (10) Under revision. In Germany, use of L'nT,w has been proposed.
- (11) Flats for rent. If owned by occupants, same limit as for row housing.
- (12) No regulatory requirements. Requirements in preparation.
- (13) No regulatory requirements. In Luxembourg, most often limits from Belgium or other neighbouring countries are applied, dependant on the consultant.
- (14) No information available.
- (15) Although England & Wales and Scotland are parts of UK, they are listed as separate countries due to different requirements.

4.4.3. Types of Projects

To get an impression of number and types of project in Cyprus the homepage of the Statistical Services Cyprus 2016, Government of Cyprus is very helpful. Also the declared types of projects can provide a basis for a simplified distinguished treatment of

noise protection requirements.

The statistical Service of the Government of Cyprus provides an excellent overview above the Construction Sector. There are also the relevant types of building constructions are included.

| Code | | JANUARY - DECEMBER | | | |
|------------|--|--------------------|--------------|-------------------|-------------------|
| CC 1996 | TYPE OF PROJECT | Number | Area (m²) | Value (€000's) | Dwelling Units |
| | | | | | |
| 11 | Residential buildings | 3.387 | 678.392 | 663.602 | 3.197 |
| 111 | Single houses | 2.692 | 457.021 | 439.288 | 1.635 |
| 112 | Buildings with two or more housing units | 690 | 219.109 | 222.059 | 1.562 |
| | Buildings with two housing units | 404 | 112.378 | 120.216 | 871 |
| | Residential apartment blocks | 211 | 81.884 | 73.943 | 583 |
| | Residential /commercial apartment blocks | 72 | 24.847 | 27.887 | 108 |
| | Cottage apartment complexes | 3 | 0 | 13 | 0 |
| 113 | Residencies for communities | 5 | 2.262 | 2.255 | |
| 12 | Non-residential buildings | 1.000 | 193.331 | 247.210 | |
| 121 | Hotels and similar buildings | 209 | 28.138 | 75.261 | |
| | Hotels | 18 | 17.994 | 38.646 | |
| | Tourist apartments and villages | 13 | 1.183 | 2.590 | |
| | Restaurants, coffee shops and bars | 178 | 8.961 | 34.025 | |
| | Other tourist accommodation | 0 | 0 | 0 | |
| 122 | Office buildings | 67 | 29.472 | 40.837 | |
| 123 | Wholesale and retail trade buildings | 90 | 30.265 | 33.741 | |
| 124 | Transport and communication buildings | 3 | 2.937 | 2.162 | |
| 125 | Industrial buildings and warehouses | 133 | 57.050 | 35.758 | |
| 126 | Public entertainment buildings and | | | | |
| | buildings used for recreational, | | | | |
| | educational or medical purposes | 150 | 22.296 | 29.725 | |
| 127 | Other non-residential buildings | 348 | 23.173 | 29.726 | |
| 2 | Civil engineering projects | 187 | 9.393 | 124.126 | |
| 3 | Division of plots | 361 | | 29.990 | |
| 4 | Road construction | 79 | | 6.494 | |
| | TOTAL | 5.014 | 881.116 | 1.071.422 | 3.197 |
| | Big projects | 229 | 383.940 | 536.161 | 1.150 |
| | Small projects | 4.785 | 497.176 | 535.261 | 2.047 |
| | | 1.1 00 | 101.170 | 000.201 | 2.011 |

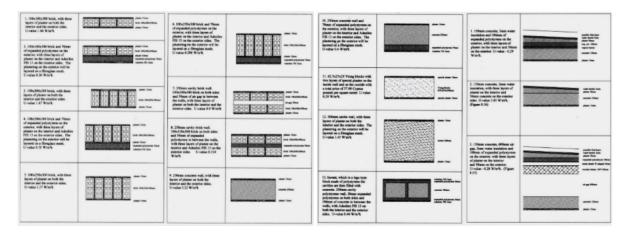
Table 1: Types of Projects

Some further documents could be found concerning building construction in Cyprus, but as above mentioned, in all documents a lack of specific requirements for sound insulation are stated.

Explanation of what follows (i.e. more detailed description of each topic or "problem" which was discovered, but not yet any proposal – proposals will come first in the next report, which is the interim report)

4.5. Conclusions and further steps

The Documents submitted provide no specific requirements related to sound insulation, room acoustic comfort or vibration. The table of international requirements show, that Cyprus obvious has not defined a county-specific descriptor or limits concerning noise protection in the building construction sector. Therefore the noise protection is defined by the typical building systems. In the paper "Lapithis P. et. Al., Technical improvements of housing Envelopes in Cyprus" some typical building construction systems are given:



Typical wall and roof constructions (Source: Lapithis P. et. Al., Technical improvements of housing Envelopes in Cyprus)

Further it is mentioned, that most window constructions are just filled with single glazing.

Otherwise there are some indications, that such limits and provisions could help to improve the living and working conditions for Cypriot people. Therefore it is strongly recommended to do a research about the given noise protection and to focus on possibilities to improve the situation based on common building construction systems in Cyprus to meet the requirements given in Regulation (EU) No. 305/2011 for a better life and working quality for Cypriot people. Further this could also provide an advantage for future development of tourisms business of Cyprus.

4.5.1. Definitions

Some main Definitions could be found in the submitted documents, as mentioned above.

Recommandation : Some more definitions related to sound insulation should be added in a special technical definitions document, together with other technical definitions.

4.5.2. On site Noise Level Outside

To get an important Basis for future sound insulation requirements for the building construction sector, it would be helpful to get an overview of a dedication of noise pollution of different areas in

Cyprus. If this does not exist, in a fist step existing measurements of L_{DEN}, L_{DAY}, L_{EVE}, L_{NIGHT} in different areas of Cyprus could be a Basis.

4.5.3. Sound Level inside

Furthermore a basis level of noise inside the buildings with different utilazation should be discussed. A Basis could be provisions given by WHO or other comparable countries.

4.5.4. Requirements Building Surfaces

In Relation to the exterior noise level requirements for the exterior walls, windows, doors, roofs etc. should be stated, to provide the health, comfort and wellfare noise level inside the buildings, based on European standards.

4.5.5. Requirements inside Buildings

In Relation also to the recommended basis level inside the sound insulation of partition walls and floors should be stated based on European standards.

4.5.6. Requirements for service equipment

In Relation also to the recommended basis level inside the noise pollution provides by housetechnic services should be limited, based on European standards.

4.5.7. Concerning Environmental Noise Level

The question arises, if the project undertoken by the Environmental Service about the evaluation of noise level could be finished and which are the results. (L_{day} , L_{eve} , L_{night} , L_{DEN})

Are there existing noise related plans in addition to existing plans? These could be a useful basis for further work

Example :



Local plan for the South of Nicosia, 2012 ; Town planning department, Ministry of Interior.

4.5.8. Room Acoustics

In a further step the room acoustic requirements for a use-adjusted absorption should be stated, on the one hand for noise protection in rooms (e.g. nurseries, working areas, restaurants, garages....) and for a better hearing conditions in schools, offices etc.

4.5.9. Vibration Protection

This Topic is related to vibrations in buildings. Here are provisions should be foreseen to avoid annoyance caused by ceiling or structure vibrations. But this topic also could be part of basic requirement (1).

4.6. Summary

The submitted documents have been reviewed related to noise protection matters for the building construction sector. There are some general statements given in this documents, but no specific requirements could be found. On the other side there are some hints related to annoyance of people by noise influence. Therefore it is recommended to have a new regulation part concerning sound insulation, room acoustic and vibration requirements based on the practical situation in Cyprus, with a focus on a modern health and wellbeing situation in the building construction sector concerning noise protection in future.

5. Energy efficiency and heat retention (Geissler)

5.1. Introduction

The part "Energy efficiency and heat retention" of the Construction Development Legislation Framework reflects the requirements of the Directive 2010/31/EU (Energy Performance of Buildings Directive – EPBD).

EPBD requirements are used to structure the review of the documents made available for the analysis.

Article 1 EPBD presents an overview of the requirements:

Article 1. Subject Matter

2. This Directive lays down requirements as regards:

(a) the common general framework for a **methodology for calculating the integrated energy performance of buildings and building units**;

(b) the **application of minimum requirements** to the energy performance of **new buildings and new building units**;

(c) the application of minimum requirements to the energy performance of:

(i) existing buildings, building units and building elements that are subject to major renovation;

(ii) building elements that form part of the building envelope and that have a significant impact on the energy performance of the building envelope when they are retrofitted or replaced; and

- (iii) technical building systems whenever they are installed, replaced or upgraded;
- (d) national plans for increasing the number of nearly zero- energy buildings;
- (e) energy certification of buildings or building units;
- (f) regular inspection of heating and air-conditioning systems in buildings; and
- (g) independent control systems for energy performance certificates and inspection reports.

5.2. Analysis of documents and preliminary results

The following pieces of legislation have been reviewed with regard to elements linked with "energy efficiency and heat retention":

StrBLaw_Apr15_EN (2)StrBReg_Apr2015_EN (3)EnergyPerfLaw_2009 (4)Energy PerfReg_2014 (5)-R.A.A. 163_2009 (6)-R.A.A. 164_2009 (7)-R.A.A. 446_2009 (39)-Mandate 1_2014 (30)-Mandate 2_2006

All other documents were also scanned in order to identify possible synergies with the field of energy efficiency.

In this regard, the Town Planning Law 2015 contains two relevant sections with regard to checking and enforcing the compliance with energy minimum requirements, namely:

(8)TownPlanningLaw_2015

Part V.—DEVELOPMENT —PLANNING CONTROL Planning permission

Part VI.—ENFORCEMENT OF PLANNING CONTROL Enforcement when planning permission required

Other relevant documents are the following ones:

(28)-Mandate 2_2005: Dossier for applications(34)-Mandate 1_2008: Handling applications(38)-Mandate 1_2011: Simplified control

Utilisation of renewable energy sources (RES) is mentioned in more than one document and is specifically emphasised in document (39)-Mandate 1_2014. Attention must be paid to the fact that local plans dealt with in (8)TownPlanningLaw_2015 and other documents (see Table 2) influence the actually exploitable RES potential which is regarded as an element of energy efficiency.

The following table summarises the reviewed documents and points out evident or possible links with the EPBD. Comments and questions are added which will be subject of discussion and clarification during the first mission.

Table 2: Overview of reviewed documents

| | Reviewed document and relevant content | Link with EPBD requirement | Comments / questions |
|---|---|--|--|
| | StrBLaw_Apr15_EN | | |
| 1 | Includes definition of "energy efficiency of a building", "building", "existing building". | Definitions | |
| 2 | Deals with planning permissions, exemptions. | | Exemptions are relevant also for EE? |
| 3 | 8(1) Prior to granting the permit in virtue of article 3, the competent authority may request the submission of such designs, sketches and calculations or it may request the provision of such a description of the intended project, as for it to be convinced of the necessity and it may require the alteration of such designs, sketches and calculations submitted in this manner, particularly (g) in order to ensure the energy efficiency of the building. | Compliance with minimum requirements | How is it checked / controlled ("may")? |

| 4 | (2) Apart from the ones contained in this Law, all the designs, sketches, writings, studies, calculations and any other document concerning the above that are carried out, 5which concern any construction, alteration, addition, repair of a building or opening of a street and which are being submitted to the competent authority for the purpose of a permit issuance, are being submitted and signed by the following persons: (a) Whatever is being carried out with regards to an architectural work, by an architect designer; (b) whatever is carried out with regards to work of a civil engineer, by a designer civil engineer. | | Who is allowed to calculate EPCs? |
|----|---|--|---|
| 5 | 10. (1) Notwithstanding that a permit has been granted for a building under article 3 of this Law, no person shall occupy or use, or cause, permit, or suffer any other person to occupy or use, any building unless and until a certificate of approval has been issued in respect thereof by the competent authority. | No link - EPC not explicitly required | Relevant for EE; EE minimum requirements for compliance with as- built situation |
| 6 | (4) The competent authority, if deemed necessary, within a reasonable period of time from the completion of the work, may request from the supervising engineer to submit a complete report on the performance of the work for which a permit haw been issued, on what stage the performance of the work is at, as well as on any aspects of the performed work which do not comply with the permit. | No link - EPC not explicitly required | Relevant for checking EE minimum requirements for compliance with as- built situation |
| 7 | (7) The competent authority always sends to the District Land Officer a copy of each certificate of approval issued in accordance with this Law. | No link - EPC not explicitly required | Relevant for accessibility of EPCs |
| 8 | Deals with completion of the works, procedures and consequences in case of non-compliance. | No link - does not refer to EE compliance | |
| 9 | 25. No provision in this Law applies for the Government of the Republic or for any Department of the Government of the Republic. | | Exemplary role of government? |
| | (2)StrBReg_Apr2015_EN | · | |
| 10 | More detailed definitions of building types | | |
| 11 | PART III. – BUILDING PERMITS | No link - EPC not explicitly required | Relevant for checking EE minimum require- ments for compliance with building design |
| 12 | PART IV. – HEIGHTS AND SPACE AROUND BUILDINGS | No explicit link | Parameters influence RES exploitation |
| 13 | PART V. VENTILATION OF BUILDINGS | No explicit link - minimum re- quirements for technical build- ing systems | Mechanical ventilation should be energy efficient |
| 14 | 14(1) Sunblinds, including any support, frame or other construction attached thereto and forming part thereof shall be placed at such height and shall open to such maximum projection as the competent authority may approve. | No explicit link - Shading devices | Important element to achieve EE |

| 15 | Part VIII and following address building components and define requirements, however not regarding energy efficiency. | | Inconsistent appr- oach? DHW from solar water heaters; heat recovery from sewers | |
|----|---|--|---|--|
| 16 | PART XII. – PUBLIC BUILDINGS | | Specific requirements, but not regarding EE | |
| 17 | PART XIID – PROJECT SUPERVISION | | (ensure quality of the works and compliance of as-built situation) | |
| 18 | PART XIIE – PROJECT EXECUTION – SITES | | , | |
| | (3)EnergyPerfLaw_2009 142 (I) of 2006 LAW FOR THE REGULATION OF THE ENERGY PE | RFORMANCE OF BI | JILDINGS | |
| 19 | Covers all EPBD requirements except plan for NZEB | | Framework | |
| | (4)Energy PerfReg_2014 Energy Performance Regulations R.A.A 429/2006 | | | |
| 20 | Contains specifications; however, not sufficiently detailed | | Point in time for issuing EPC? Control system? | |
| | (5)-R.A.A. 163_2009 | _ | | |
| | THE REGULATION OF ENERGY PERFORMANCE OF BUILDINGS LAW R.A.A. 163/2009 The Regulation of Energy Performance of Buildings (Inspection of air conditioning systems) | | | |
| 21 | Contains specifications regarding inspection | (f) regular inspection | Data collection? | |
| | (6)-R.A.A. 164_2009 K.D.P 164/2009 "issuing the certificate of the energy performa | ance of buildings ar | nd recommendations | |
| 22 | Contains specific information of qualified experts entitled to calculate and issue Energy Performance Certificates | (e) energy certification of buildings or building units | Point in time to present the EPC; link to permission / approval procedure? | |
| 23 | Accuracy of the energy performance of building certificate 18 (1) In all cases, the information contained in the energy performance of building certificate and the recommendations which are registered in the energy performance of buildings certificates' register shall be considered correct until proven otherwise. | | Evaluation study available to substan- tiate this assumption? (in other countries: high percentage of faulty EPCs) | |
| | (7)-R.A.A. 446_2009 | | | |
| | Regulatory Administrative Act 446/2009 THE REGULATION OF LAW Decree under section 15(1) | - ENERGY PERFORM | IANCE OF BUILDINGS | |
| 24 | Refers to the "Guide to Thermal Insulation of Buildings" and to the "technical guide to solar systems" | (b) and (c) application of minimum requirements to the energy performance | What type of documents are the "guides"? Final energy demand? Cooling energy demand? | |
| 25 | 3. The minimum requirements for the energy performance of buildings for every new building, as well as for every building with total useful floor area of more than one thousand square meters that undergoes deep renovation are set out in the Table. | | Limitation regarding m ² ? Deep renovation is not a term used in the EPBD ("major" renovation) | |

| 26 | 4. (1) In addition to the requirements of paragraph 3, for every new building that is used as a residence a solar system shall be installed in order to satisfy the hot water requirements, in accordance with the Technical Guide to Solar Systems and in accordance with the terms of the competent planning authority. | | Solar system: solar thermal system and photovoltaic system; specification needed? |
|----|---|--|--|
| 27 | Class of energy performance of a building on the energy performance certificate - 5) Maximum thermal transmittance coefficient "U-value" Maximum thermal transmittance coefficient Umean Provision for the use of systems generating electricity from renewable energy sources (RES) | (b) and (c) application of minimum requirements to the energy performance | |
| 28 | Provision shall be made in consultation with the electricity supplier (EAC or other) and it shall include: (a) placing in the building a larger electricity measuring box, so as to allow for additional available space to install the RES meter, and (b) placing the suitable piping, which shall start from the meter box and end to the future potential position of installation of the RES system. | | No provision for metering of electricity consumption? |
| | (39)-Mandate 1_2014 THE TOWN AND COUNTRY PLANNING LAW MANDATE 1 of 20 regard to developments | 14 Use of renewat | ble energy sources with |
| 29 | Mandate is to establish incentives (or and conditions) to encourage the use of renewable energy sources in various types of development. | | |
| 30 | 2. a. The relevant installations for the utilisation of renewable energy sources with regard to the developments, are limited to solar power plants (photovoltaic) and solar thermal installations only. b. In the event of use of a photovoltaic system for the generation of electricity, the entire installation shall be connected to the electricity distribution network of the Electricity Authority Cyprus (EAC). | | Grid management? |
| 31 | e. For all developments covered by this Mandate, the submission of the "Energy Performance Certificate" (as well as of the relevant documents/ calculations) to the Building Authority in accordance with the Regulation of Energy Performance of Buildings Law L.142(I)/2006 (and of its subsequent amendments) is mandatory, and includes all the existing developments regardless of size as well. | | Not mandatory for other developments? |
| 32 | f. The building coefficient (%) established as an incentive with this Mandate cannot constitute a building coefficient for transfer to another property from the one for which the relevant permits shall be granted/ issued from the competent authorities. | | Explanation of the building coefficient (%) – calculation method? |
| 33 | 5. During the examination of the planning permission, the Planning Authority shall confirm, following a relevant consultation with the Energy Service, that the recommended RES technology, the required mechanical installations, surfaces, places and methods of installations (e.g. for solar panels etc.) shall be able to satisfy the minimum requirements for energy generation (in conjunction with the respective requirements of the development's energy performance) in accordance with the content of the Table below. | | Inconsistent with 23? |
| 34 | 6.1 In submitting the application for the obtainment of the Construction Permit, the applicant must accompany his/her application with the "Certificate of Energy Performance", all of the remaining documents and calculations emanating from the implementation of the Regulation of Energy Performance of Buildings Law L.142(I)/2006 and an accompanying Letter which shall also be granted by the Energy Service and in which the contribution of the forms of RES determined in paragraph 2a of this Mandate shall be certified, to all the energy needs of the | | Not a procedure applicable in general, only to achieve incentives for RES? |

| | development. For this letter the Energy Service shall be based on the one hand on the Certificate of Energy Performance and on the relevant calculations of energy performance of a building and on the other hand on the written intention of the applicant to the Energy Service where he/she shall state the intention to utilize/ implement the incentives/ conditions of this Mandate for a specific type of development. It shall be understood that in the event where these are not submitted, then the relevant conditions of the respective Planning Permit shall not be in force (for granting the incentive for an increased building coefficient or for authorisation of another development for which the use of RES is a condition. | |
|----|--|---|
| 35 | TABLE OF INCENTIVES AND CONDITIONS REGARDING THE USE OF RES | Checking procedure? |
| | (30)-Mandate 2_2006 THE TOWN AND COUNTRY PLANNING LAW Order no. 2 of 2006 in accordance wi | ith Article 6 of the Law |
| 36 | 5. PHOTOVOLTAIC SYSTEMS 5.1 V systems installed in the shell of buildings with a purpose to partially or completely cover the energy needs for the uses of the construction, may be allowed if they are specifically provided for in the plans accompanying the application for the grant of a planning permit. A planning permit is required in order to add such facilities in existing buildings, unless the Planning Authority deems that the installation of PV systems is a subtask in buildings that have already obtained approval under the Town and Country Planning General Development Order. Applications in relation to such installations will be considered favourably, provided that they are harmoniously incorporated into the building and do not harm the microclimate in their surroundings and neighbouring facilities and developments (reflection and glare, local temperature rise, etc.). Additionally, guidelines will also apply for the aesthetic improvement of the built environment. | How is it checked? Which guidelines? |

5.3. Overall impression

In the documents made available for the review, aspects related with building energy efficiency can be found in several documents. An overarching concept is missing. The provided documents refer to other documents ("guidelines") which have not been made accessible, and it is not clear to what extent other documents have to be considered, such as relevant European standards.

Therefore, publications of the Concerted Action EPBD were used in addition, in order to understand the status quo better. The following documents are available at http://www.epbd-ca.eu/ca-outcomes/2011-2015:

- ca3-2016-national-cyprus-web.pdf
- CA-EPBD-KIDs-Cyprus.pdf

The following document is available at the Ministry's website (Ministry of Energy, Commerce, Industry and Tourism)

http://www.mcit.gov.cy/mcit/mcit.nsf/All/E074577C58AD9EFCC22575B60047BEA8?OpenDocument:

• Calculations for setting the minimum energy performance requirements at cost optimal leves.pdf

5.4. How to proceed

Focus of further analysis will be defined after the discussions and clarifications achieved during the first mission.

In addition to the questions raised in Table 2, the questions listed below should be dealt with during the first mission, in order to understand the status quo better and to be able to come up with useful suggestions for revising the legislative framework. It is necessary to understand which elements of the EPBD are included in the Construction Development Legislation Framework, and which elements are regulated in other legislation.

5.4.1. Provided documents:

- Is there an overarching document?
- What is the role of "guidelines" (mentioned in the documents) and the role of European standards (not mentioned in the documents)?

5.4.2. Building stock:

- New versus existing buildings; what is the share, what is more important?
- Dominant building types: Hotels? Offices? (Bank owned) Residential buildings?
- Focus on cities versus rural areas?

5.4.3. Nearly zero energy buildings:

• NZEB definition and requirements?

5.4.4. Energy efficiency measures:

- What are the most effective energy efficiency measures and how can they be triggered by the building code? (Building orientation? Top ceiling insulation?)
- Prescriptive building requirements in the code add energy efficiency performance requirements? More prescriptive requirements such as solar thermal water heaters, insulation of top ceiling, mechanical ventilation with energy recovery / pre-cooling?
- Existing buildings: Is it possible/useful to put prescriptive requirements such as insulation of the top ceiling in existing building within 10 years?
- Specific requirements for public buildings?

5.4.5. Administration:

- Application, permission, approval and control procedure through internet?
- Uploading of other building documents for cross-checking with energy efficiency data?
- What/how will the building authority be able to check, control and enforce?
- Calculation method: Definition of input data, checking of input data; is it possible as part of the control procedure?
- Awareness creation about compliance checking to prepare people for fines
- Capacity of the authority to carry out control? Third party system?
- Open data initiative: how to make EPC data accessible?