Norsk Regnesentral
NORWEGIAN COMPUTING CENTER

Note

Byggsøk XML 1.2 and Byggsøk XML 2.0

The differences between the two versions (Revised version)

Note no DART/15/2010

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Abstract

This note describes the differences between Byggsøk XML version 1.2, which is the currently running version, and Byggsøk XML version 2.0 which has been under development during 2010.

The task of writing this report was given by Statens bygningstekniske etat on 14. October, 2010.

This version of the document is updated with the latest XML code changes, as of 8. July 2011.

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1 Introduction

This document, NR note number DART/15/2010, describes the differences between Byggsøk XML version 1.2, the and the new version, Byggsøk XML version 2.0.

Byggsøk version 1.0 was documented by Per Thomas Jahr in a document having the publication date: 28.th February 2003. It is written in Norwegian and the title is "Dokumentasjon av XML strukturer for Byggsøk". The differences between Byggsøk XML 1.0 and 1.2 is described by Arne-Kristian Groven in a report called "Byggsøk XML 1.0 and Byggsøk XML 1.2- The differences between the two versions", NR note number DART/07/2010. The details of Byggsøk XML version 2.0 together with the rest of BE XML version 2.0 is documented in a report called "XML structures (v2.0): Byggsøk and Sentral godkjenning", NR note number DART/16/2010.

The current document aims at giving an indication of the differences between Byggsøk XML 1.2 and Byggsøk XML 2.0 without going into all the details.

This version of the document is updated with the latest changes of the Byggsøk XML 2.0 code, av of 8.July 2011.

2 New top level nodes

In Byggsøk XML 1.2, contained in the file called byggesak.xsd, the element “byggesak” is the top-most nested element (below the schema root element). In the new version, Byggsøk XML 2.0, it is part of the following structural context[1].

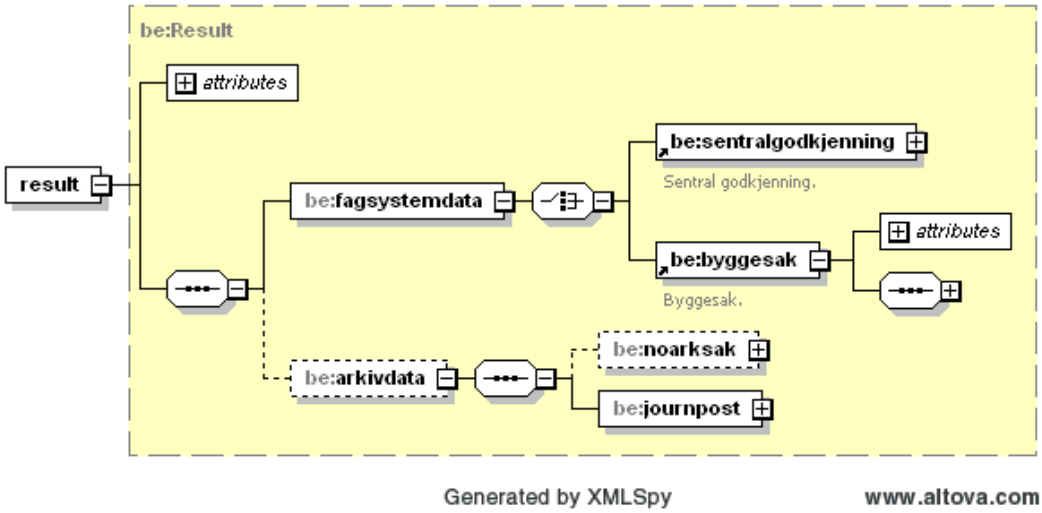

Figure 1 The new root level XML schema structure

This structure is based on KS resultat-XML, where “byggesak” and “sentralgodkjenning” are the top nodes used by two services provided by Statens bygningstekniske etat, where users can either apply for (i) building permit or (ii) apply for “sentral godkjenning”. In addition elements related to archiving using Noark 4 is included as part of the nested element called “arkivdata”.

3 The element ”byggesak”

The structure of the nested element “byggesak” of Byggsøk XML 1.2 is described in Figure 2 (down to some level of detail). The structure of the nested element “byggesak” of Byggsøk XML 2.0 is described in Figure 3. In Byggsøk XML 2.0, “byggesak” is defined to include the following three nested elements: (i) “sak”, (ii) “saksbehandling”, and (iii) “arkiv”.

One of the first structural changes to notice is that the direct sub- or child elements of “byggesak” in Byggsøk XML 1.2 have now become child elements of a new element called “sak” in Byggsøk XML 2.0. The element “sak” is introduced as a new direct child element of “byggesak”. The sub-elements of “sak” are here partly elements having the same names as in version 1.2, like “dispensasjon”, “eiendom”, “bygning”, “part”, “rolle”, and “vedlegg”, and partly elements having different names. Of the elements having the same names, some have modified content others have not.

[1] All presentations of XML schema structures in this report are diagram views generated in the tool called Altova XMLSpy. This is done to abstract away from all the syntactic details of a (textual) XML schema in order to get the best possible overview.

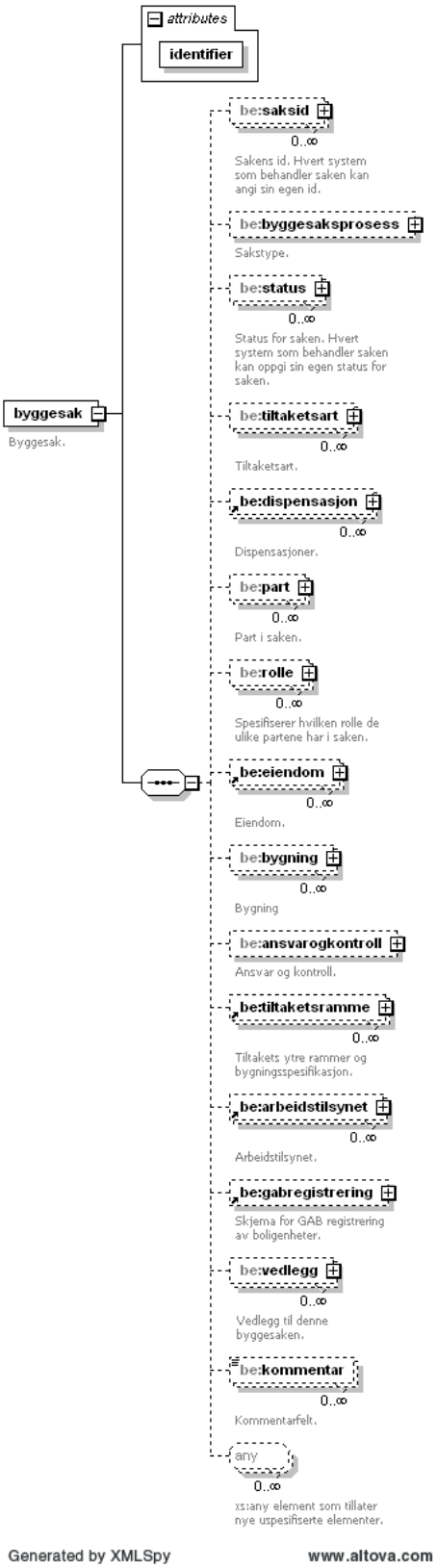

Figure 2 The “byggesak” nested element structure of Byggsøk XML 1.2

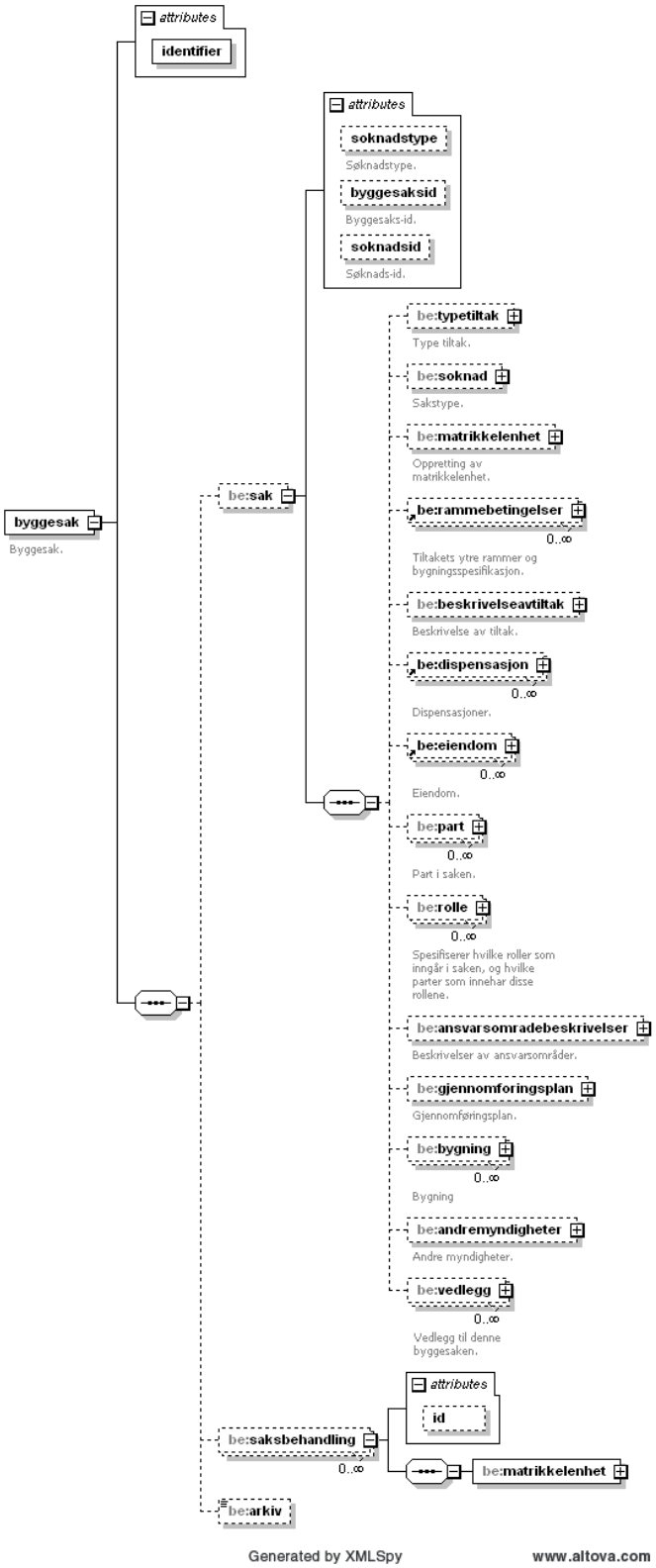

Figure 3 The “byggesak” nested element structure Byggsøk XML 2.0

In addition to the “sak” element, the elements “saksbehandling” and “arkiv” are introduced as sub-elements of “byggesak” in Byggsøk XML 2.0. Elements named “sak”, “saksbehandling”, and “arkiv” are used as sub-elements of both the new “byggesak” and “sentralgodkjenning”, but they are not representing the same sub-structures. That is, the element named “saksbehandling” in “sentralgodkjenning” is different from the element named “saksbehandling” in “byggesak”. This is illustrated in Figure 4.

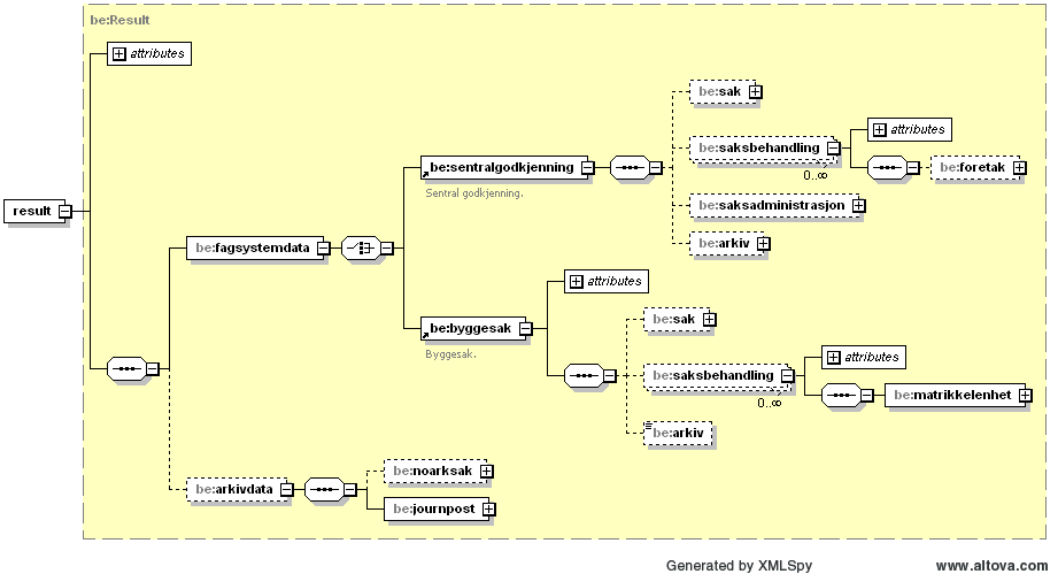

Figure 4 ”saksbehandling” in ”sentralgodkjenning” is different from ”saksbehandling” in ”byggesak”

4 The child elements of “sak” with less substantial deviations

In both versions the “byggesak” element has an associated attribute called “identifier”. Additionally in the new version, “sak” contains the following attributes: “soknadstype”, “byggesaksid”, and “soknadsid”.

Since the (direct) child elements of “byggesak” in version 1.2 are comparable with the child elements of “sak” in the new version, a comparison is done between these child elements.

The element named “kommentar”, under “byggesak” in the old version, has been removed in the new version. The elements named ”dipensasjon”, ”rolle”, ”part”, ”vedlegg”, ”bygning”, and “eiendom” have all kept their original names in the new version. These will be discussed first.

4.1 dispensasjon

The name of the element has been kept but the content has been modified as follows: The new structure, as illustrated in Figure 5, contains fewer elements than the old structure, illustrated in Figure 6. Worth noticing is that “type” in the old version was a string while in the new version “dispensasjonstype” is of type “DispensasjonsType”.

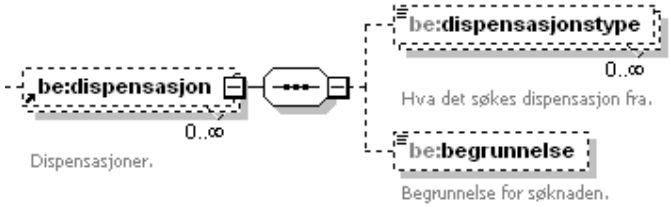

Figure 5 The element ”dispensasjon” of Byggsøk XML 2.0

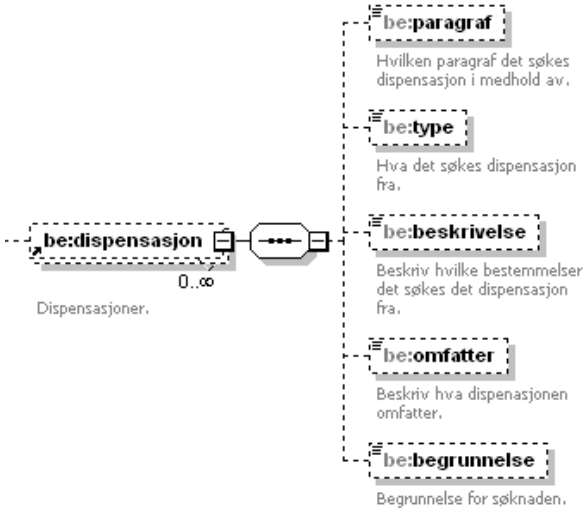

Figure 6 The element ”dispensasjon” of Byggsøk XML 1.2

4.2 rolle

The only difference is a renaming of an element, from “rollesigned” to “signert”.

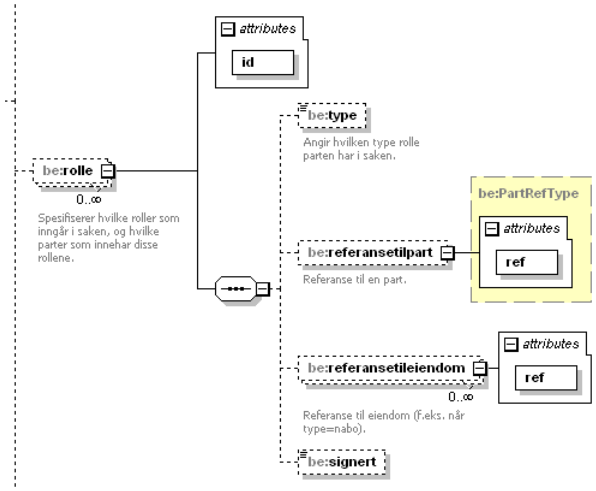

Figure 7 The ”rolle” structure of Byggsøk XML 2.0

4.3 part

Both the name and overall structure of the element called “part” are kept. In both versions, “part” is defined be of type “PartType”. In Byggsøk XML 2.0 a new type called “ForetakType” is defined and used for both the element “foretak” and “organisasjon”. Also, a new element “omrade” of type “OmradeType” is defined under “privatperson”. Type “PartType” for both versions are illustrated in the following.

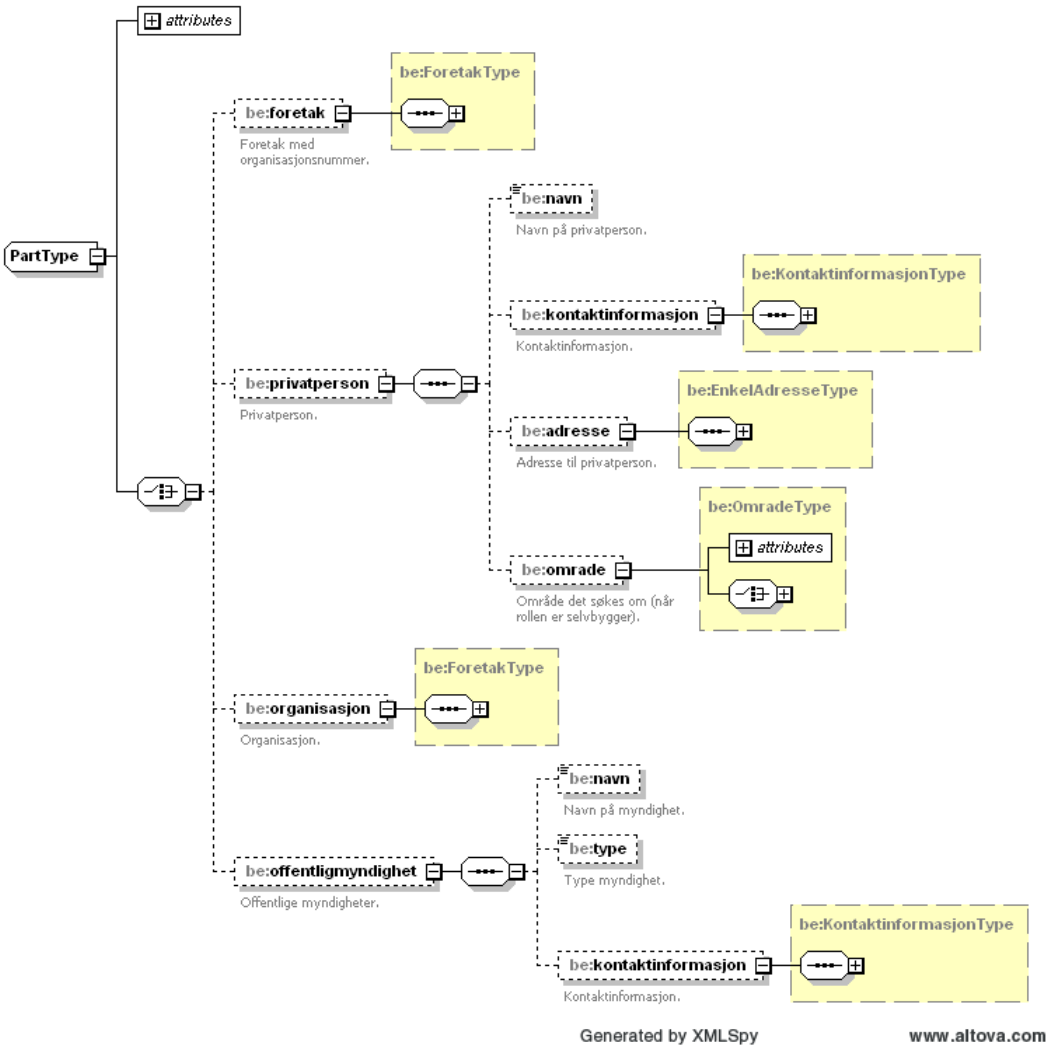

Figure 8 The element type ”PartType” of Byggsøk XML 2.0

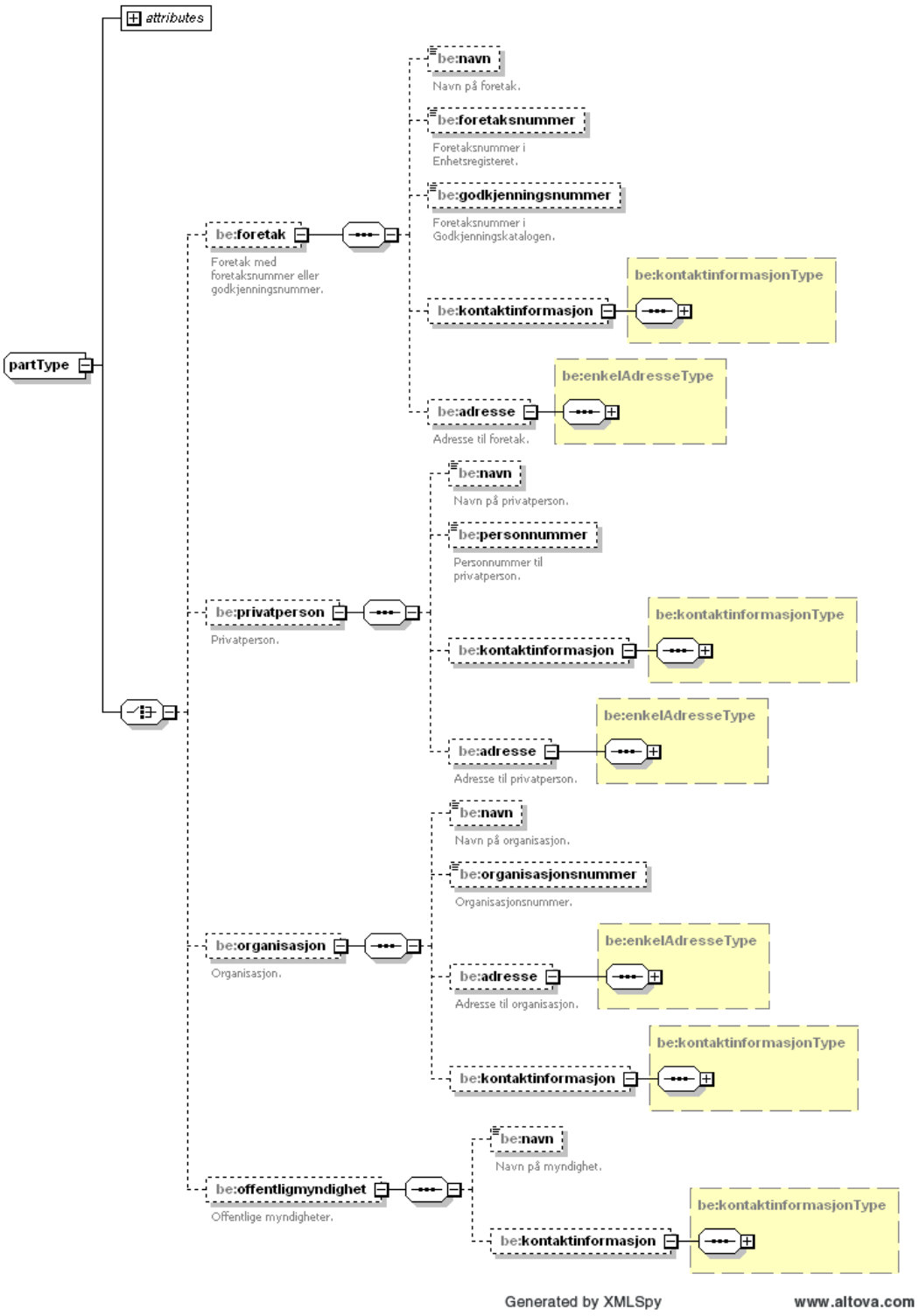

Figure 9 The element type ”PartType” of Byggsøk XML 1.2

4.4 vedlegg

A new type called “VedleggType” has been defined in the new version. The element called “navn” has been removed while the elements called “gruppe”, “plassering”, and “versjonsnummer” have been included.

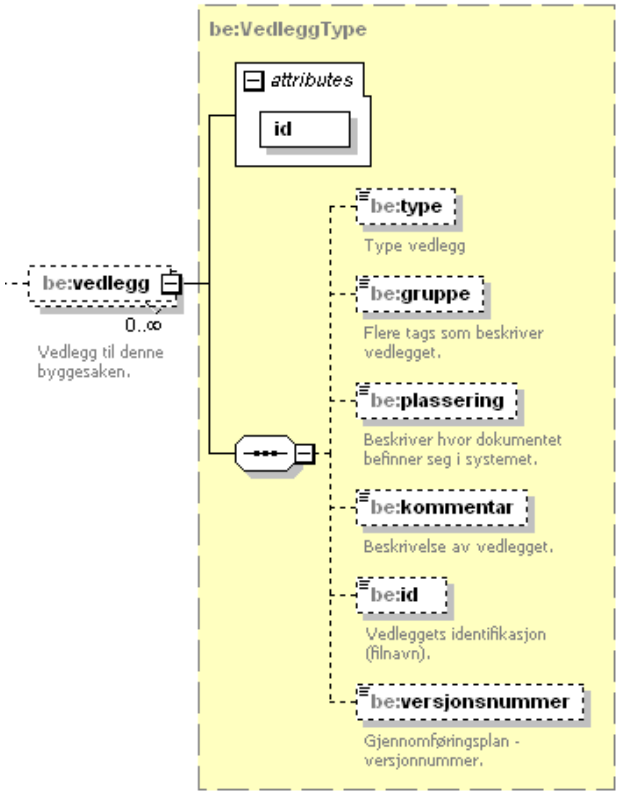

Figure 10 The element type ”VedleggType” of Byggsøk XML 2.0

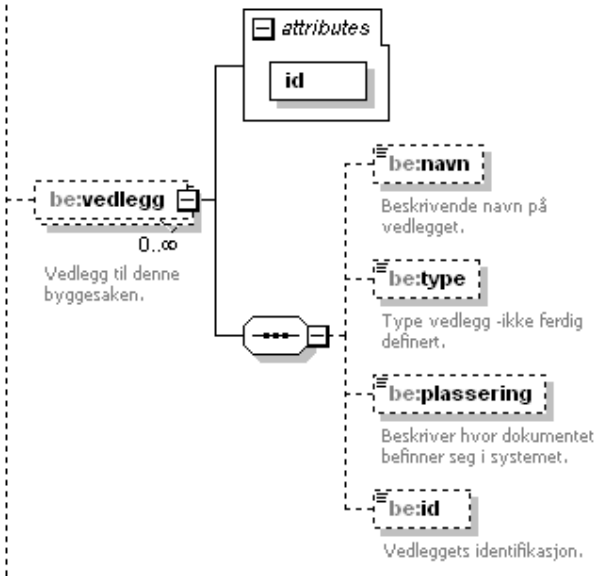

Figure 11 The element ”vedlegg” of Byggsøk XML 1.2

4.5 bygning

The element ”bygning” has been changed in the following way: Direct sub-elements ”bygningsnummer” and ”bolignummer” have been removed. The “bygning” element of the new version is illustrated in Figure 12 and of the old version is illustrated in Figure 13.

Figure 12 The element ”bygning” of the new version.

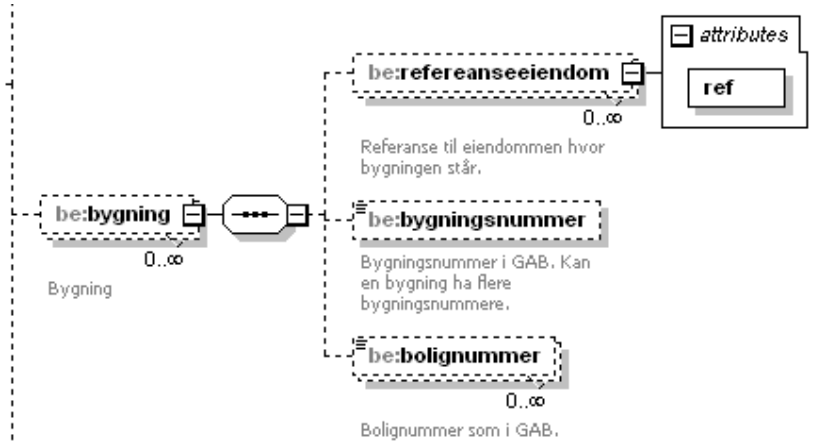

Figure 13 The element ”bygning” of the old version

4.6 eiendom

The name “eiendom” has been kept but the content has changed in the following ways:

1. The owner of the property, described by “person”, has been included. Here the standardized type “personns:Person” is used, taken from the following namespace: personns=http://matrikkel.statkart.no/eksternapi/innsyn/v3/modell/person

2. The element“identifikasjon” of type “be:EiendomsadresseType” is used to identify the property, containing the element “andregnrbnr”, “bolignummer” (from SSB), together with “matrikkel” of type “matrikkelenhetns:MatrikkelenhetIdent” and either an element called “adresse” or an element called “enkeladresse”. The element “adresse” is of type “adressens:Matrikkeladresse”, namespace adressens= "http://matrikkel.statkart.no/eksternapi/innsyn/v3/modell/adresse". The element “enkeladresse” is of type “be:EnkelAdresseType” and is intended to be used until “adresse” is fully integrated.

The first point above (1.) is replacing the content of “eiendom” in the old version, while the second point, (2.), is a new element introduced.

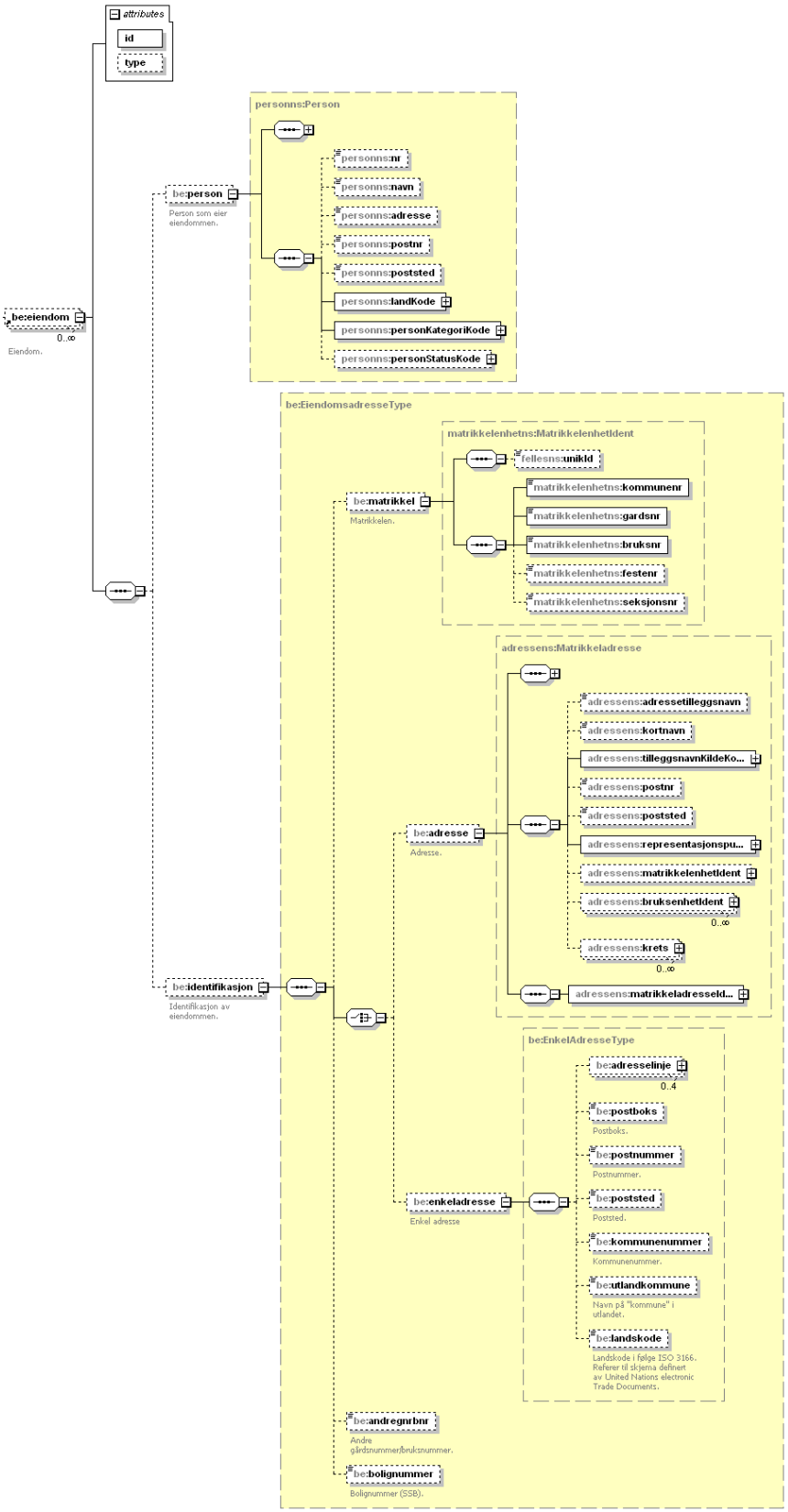

Figure 14 The structure of the element ”eiendom” in Byggsøk XML 2.0

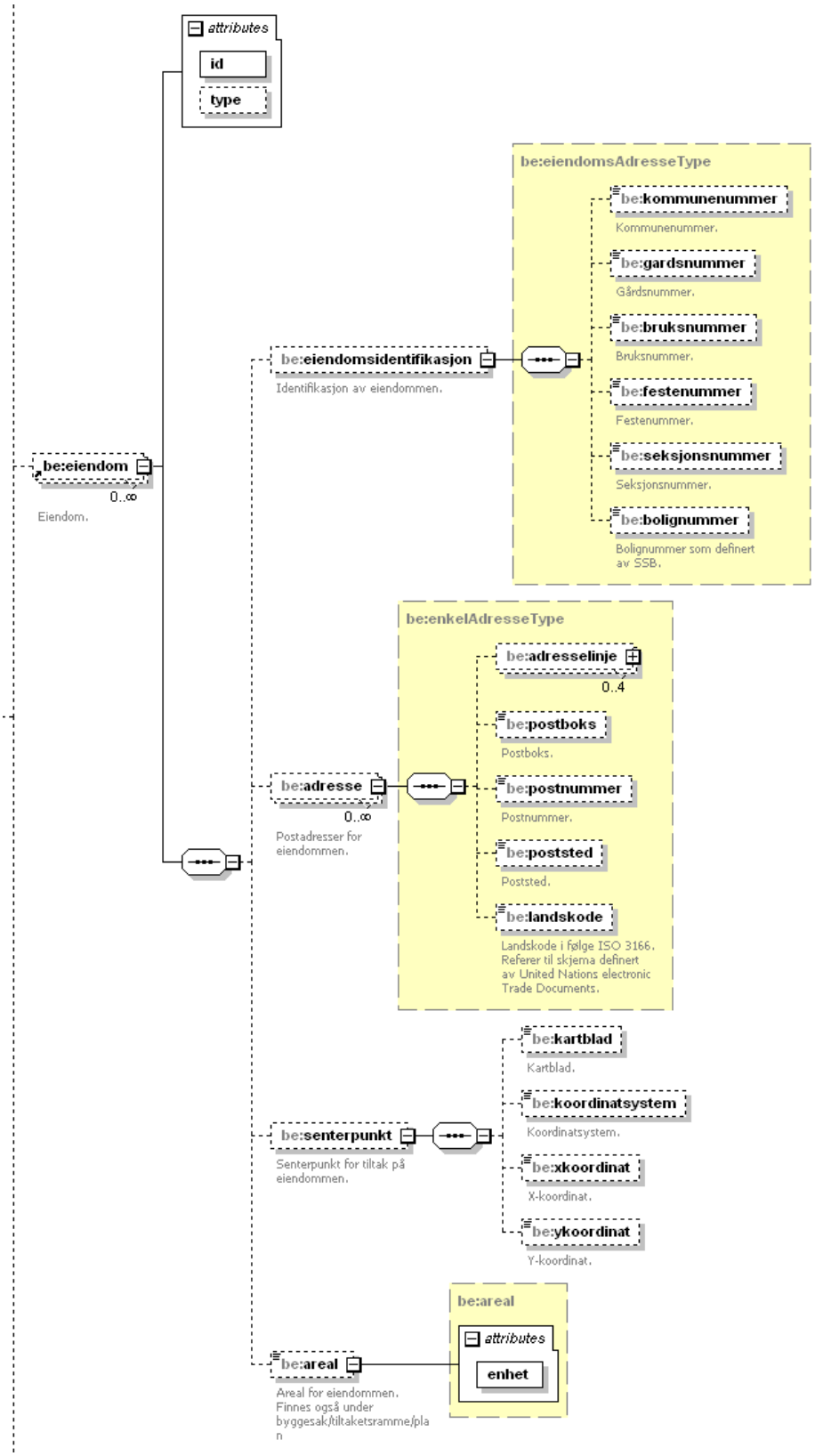

Figure 15 The structure of the element ”eiendom” in Byggsøk XML 1.2

4.7 andremyndigheter

The element “arbeidstilsynet”, which was at the same level as the elements described above, has been placed as (the only) part of a new element called “andremyndigheter”.

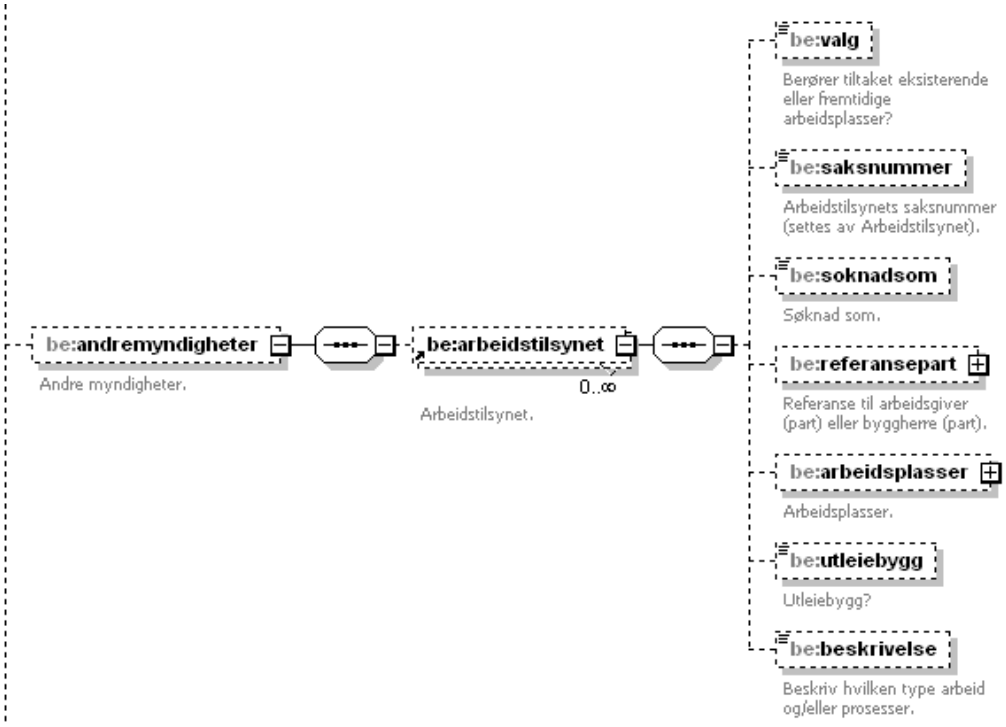

Figure 16 The element ”andremyndigheter” containing the element ”arbeidstilsynet”, in Byggsøk XML 2.0

The element “arbeidstilsynet” contains exactly the same elements as in the previous version.

5 The elements in “sak” with more substantial deviations

Having covered the (relatively speaking) minor XML code differences in the previous chapter, this chapter takes a look at the more substantial deviations between the two versions.

In Figure 17 the new XML schema version is presented, expanding visually in the diagram the sub-elements of “sak” that have so far not been covered. In Figure 18 the old version is presented, also with non-covered elements expanded.

From the old version, the elements “saksid”, “status”, and “kommentar” have been removed (or possibly being placed as part of a sub-element).

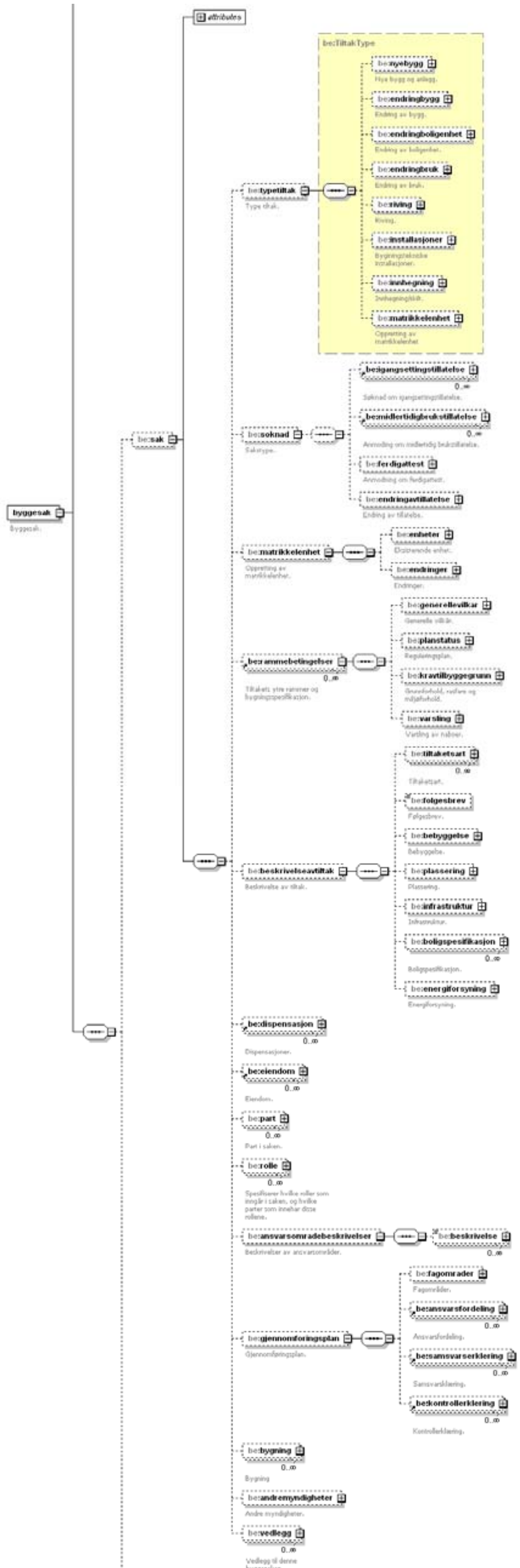

Figure 17 ”byggesak” emphasizing the sub-elements not described so far (Byggsøk XML 2.0)

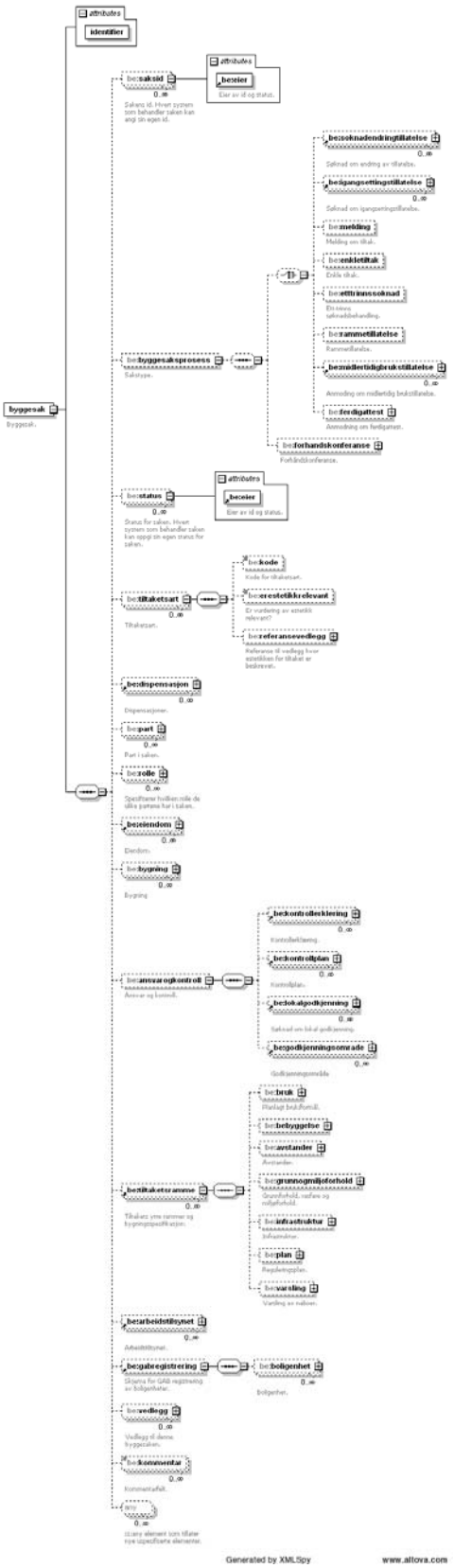

Figure 18 ”byggesak” emphasizing the sub-elements not described so far (Byggsøk XML 1.2)

5.1 typetiltak

The nested element ”typetiltak” of type ”TiltakType” is new in Byggsøk XML 2.0, addressing in a more detailed and modular way than previously the different actions that can be applied for.

Figure 19 The ”typetiltak” element structure in Byggsøk XML 2.0

5.2 soknad

In Byggsøk XML 2.0, the element (structure) called ”soknad” corresponds to the old ”byggesaksprosess”.

Three direct child elements (element structures) are kept and these are:

- “igangsettingstillatelse”
- “midlertidigbrukstillatelse”
- “ferdigattest”

All other direct child elements of “byggesaksprosess” in Byggsøk XML 1.2 have been removed from “soknad”. In “soknad” a new element structure called “endringavtillatelse” is introduced.

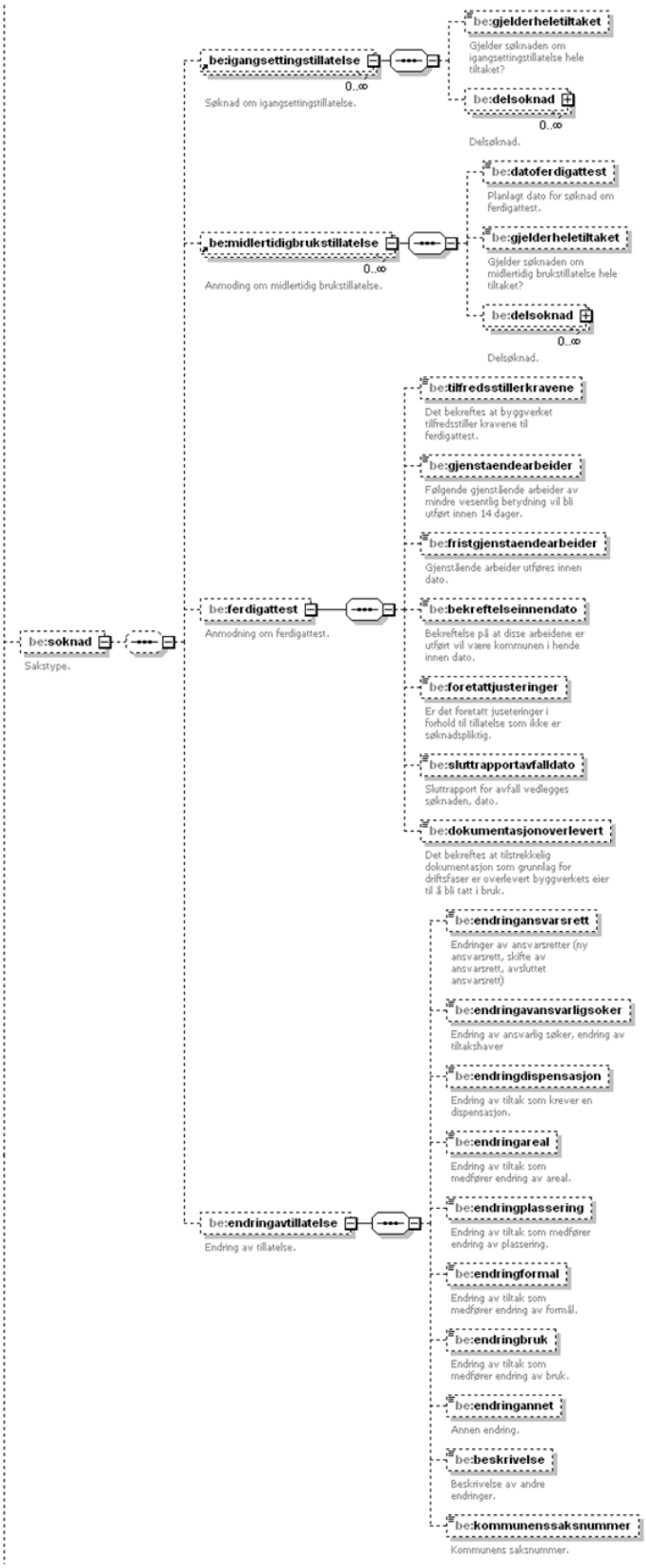

Figure 20 The ”soknad” element structure in Byggsøk XML 2.0

5.2.1 igangsettingstillatelse

The sub-structure is kept.

A more syntactic difference: The element ”gjelderheletiltaket” of type boolean is replacing the enumeration element “type” that had two defined values.

The elements “kommunesaksnummer” and “delavtiltaket” under “delsoknad” are new. The elements “beskrivelse” and “dato” from the old structure are removed. The elements “tillatelsesdato” and “kommentar” are kept.

5.2.2 midlertidigbrukstillatelse

The sub-structure is kept.

A more syntactic difference: The element ”gjelderheletiltaket” of type boolean is replacing the enumeration element “type” that had two defined values.

Seven new child elements of “delsoknad” are introduced. All the old ones are removed.

5.2.3 Ferdigattest

The element named “ferdigattest” is kept, but the only child element of the old version is removed and seven new ones are introduced.

5.2.4 Endringavtillatelse

New element structure with ten child elements.

5.3 Matrikkelenhet

The element ”matrikkelenhet” is introduced as a new nested element. The purpose is to uniquely identify a property, using “adressens: Vegadresse”.

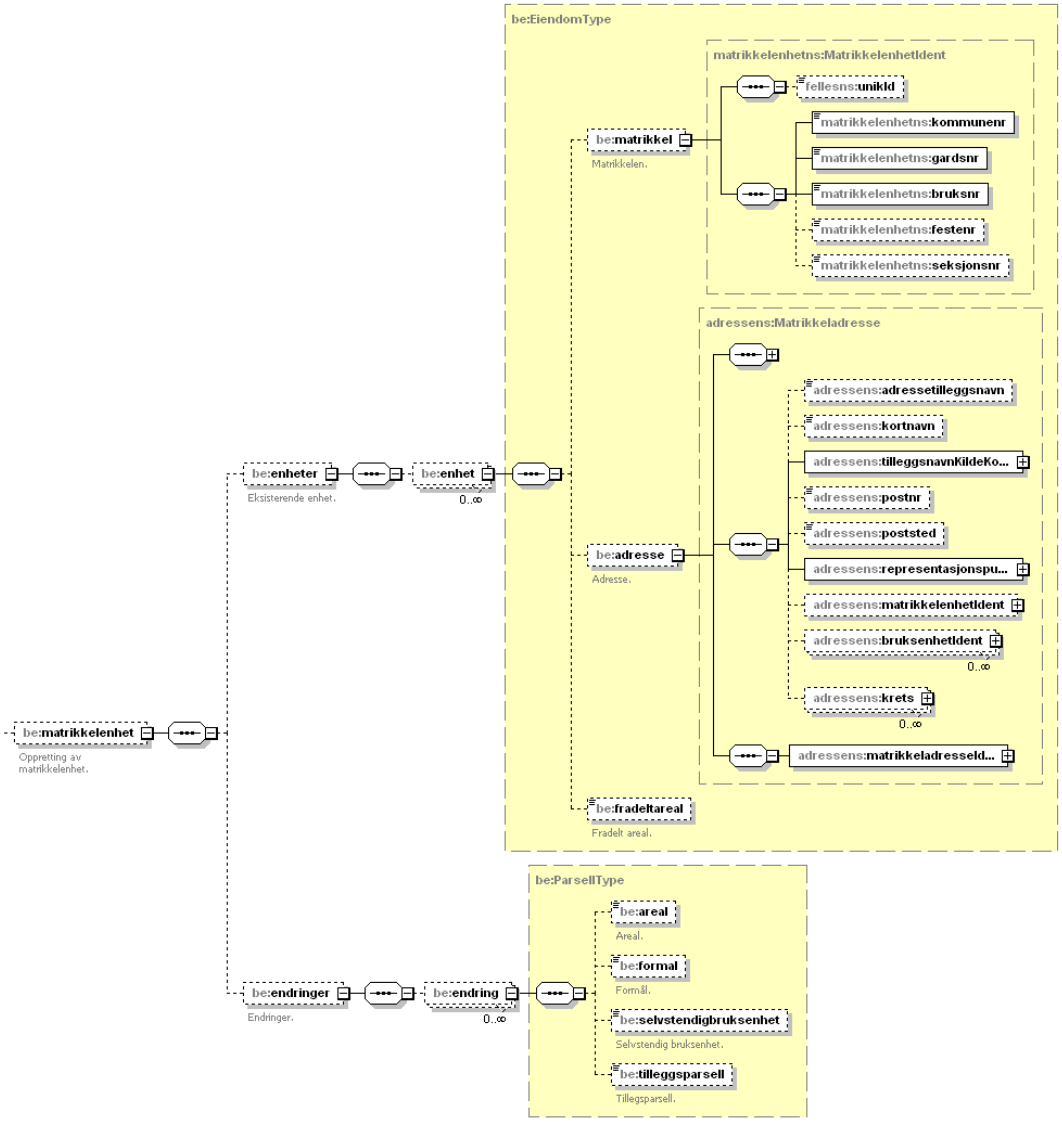

Figure 21The "matrikkelenhet" element structure in Byggsøk XML 2.0

5.4 rammebetingelser

In the old version, the element called "tiltaketsramme" covered child elements that are now split into two new element structures. These are called:

- "rammebetingelser"
- "beskrivelseavtiltak"

The element "rammebetingelser" consist of a string of sub-elements to be described in this section while the element "beskrivelseavtiltak" will be described in section 5.5.

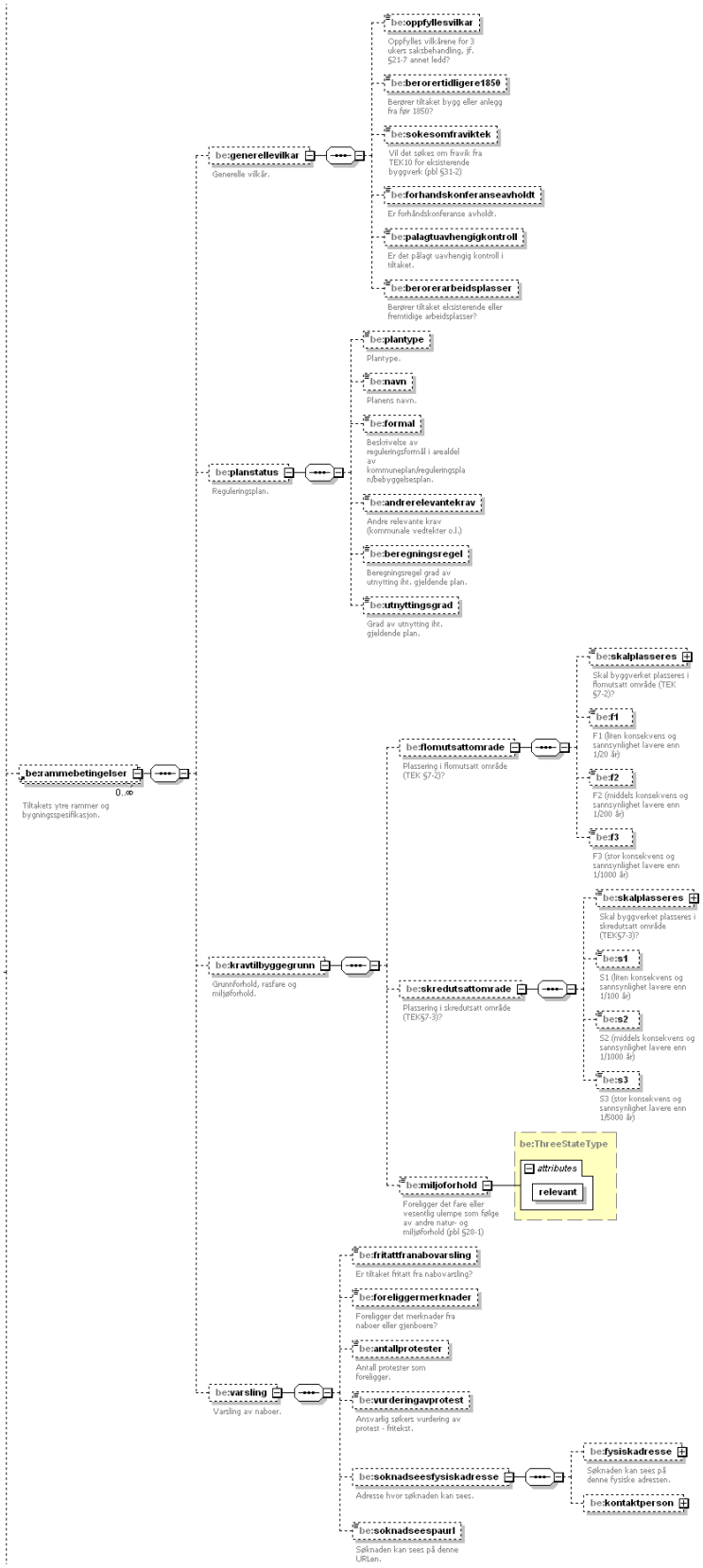

Figure 22 ”rammebetingelser” in Byggsøk XML 2.0

5.4.1 generellevilkar
The element “generellevilkar” is new. Most of the child elements are new.

5.4.2 planstatus
The element ”planstatus” in the new verison corresponds to ”plan” under ”tiltaketsramme” in the old version.

5.4.3 kravtilbyggegrunn
The element ”kravtilbyggegrunn” corresponds to the element ”grunnogmiljoforhold” under ”tiltaketsramme” in the old version.

5.4.4 varsling
The element ”varsling” corresponds to the element with the same name under ”tiltaketsramme” in the old version. Here the elements “antallprotester” and “vurderingavprotest” are kept, but new elements are added and some are removed.

5.5 beskrivelseavtiltak
The element ”beskrivelseavtiltak” is illustrated in Figure 23 below.

5.5.1 formal
The element “formal” (formål) in the new version is replacing both the element “bruk”, under “tiltaketsramme”, and “tiltaketsart”, directly under “byggesak”, in the old version of the XML code. In particular, the elements “anleggstypekode”, “bygningstypekode”, and “neringstypekode” are introduced, all being enumerations. The boolean elements “bolig”, “fritidsbolig”, and “garasje” are replacing the “kode” element of the old code.

5.5.2 energiforsyning
The element “energiforsyning” is moved up one level in the new XML code compared to the old code. It is now placed at the same level as “bebyggelse”. In the previous version it used to be a sub-part of “bebyggelse”.

5.5.3 bebyggelse
As part of ”beskrivelseavtiltak” there is the “bebyggelse” sub-structure. In the old version of the XML schema code, “bebyggelse” was part of a structure called “tiltaketsramme”. So there is a re-naming, from “tiltaketsramme” to “beskrivelseavtiltak”.

The element “bebyggelse” of the new XML version is presented in Figure 24 and “bebyggelse” of the old version is presented in Figure 25. As can be seen, the details are somewhat changed from one version to another, but the purpose is the same.

A new type, “ArealfordelingType” is defined and used multiple times in the new code, as part of the (new) element “bygningsopplysninger”. This type consists of the sequence of the elements “eksisterendebebyggelse”, “nybebyggelse”, and “sumbebyggelse” and the type is used to define “arealbya” (BYA), for “arealboligbra” (BRA) and “arealannetbra”, and the total, “arealialtbra”. Likewise a type, “EnhetfordelingType” is defined and used multiple times in the new code. Consisting of a sequence of the elements “eksisterendeenheter”, “nyeenheter”, and “sumenheter”, the type is use to define “bruksenheterboligformal”, “bruksenheterannetformal”, and “bruksenheterialt”. The last element contained in “bygningsopplysninger” is “antalletasjer” indicating the number of floors after the modification.

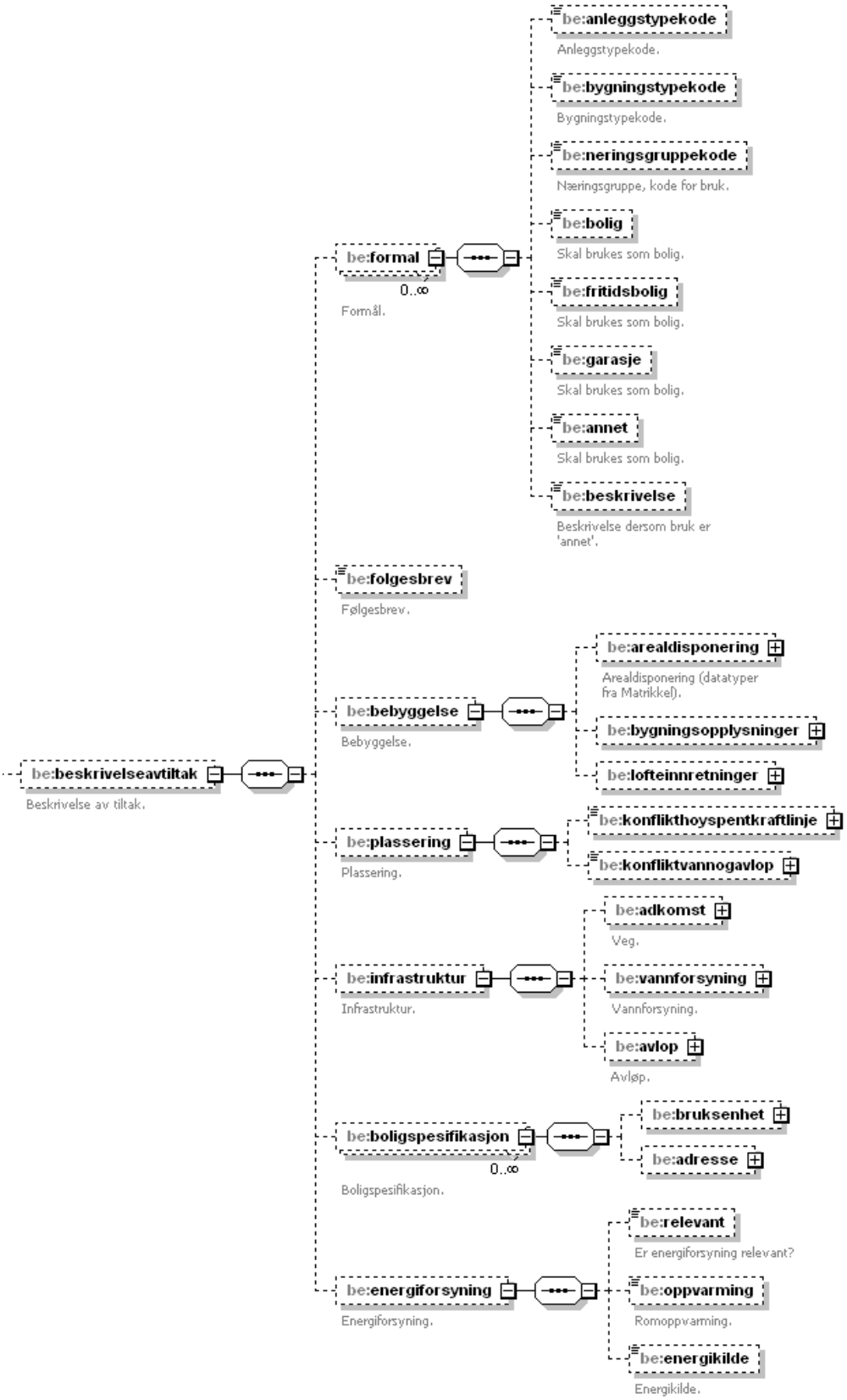

Figure 23 ”beskrivelseavtiltak” in Byggsøk XML 2.0

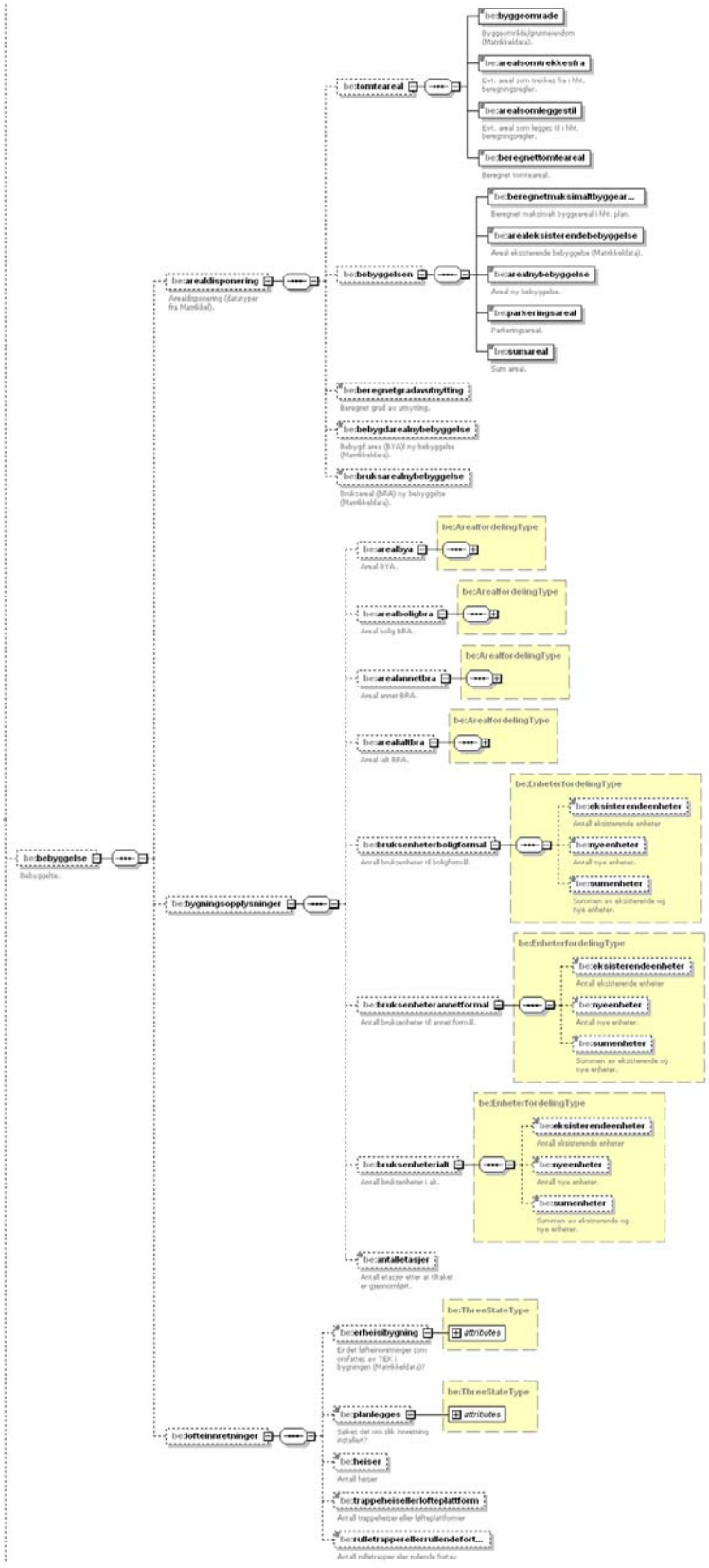

Figure 24 The element ”bebyggelse” in Byggsøk XML 2.0

The element “heis” in the old code version is substituted by a sequence of five elements, being part of the element “lofteinnretninger”.

In addition the modifications mentioned above, the elements “hoyder”, “bygningstypekode”, and “energiforsyning” of version 1.2 are no longer elements of “bebyggelse” in version 2.0. The element “energiforsyning” is moved upwards in the structure, to the same level as “bebyggelse”.

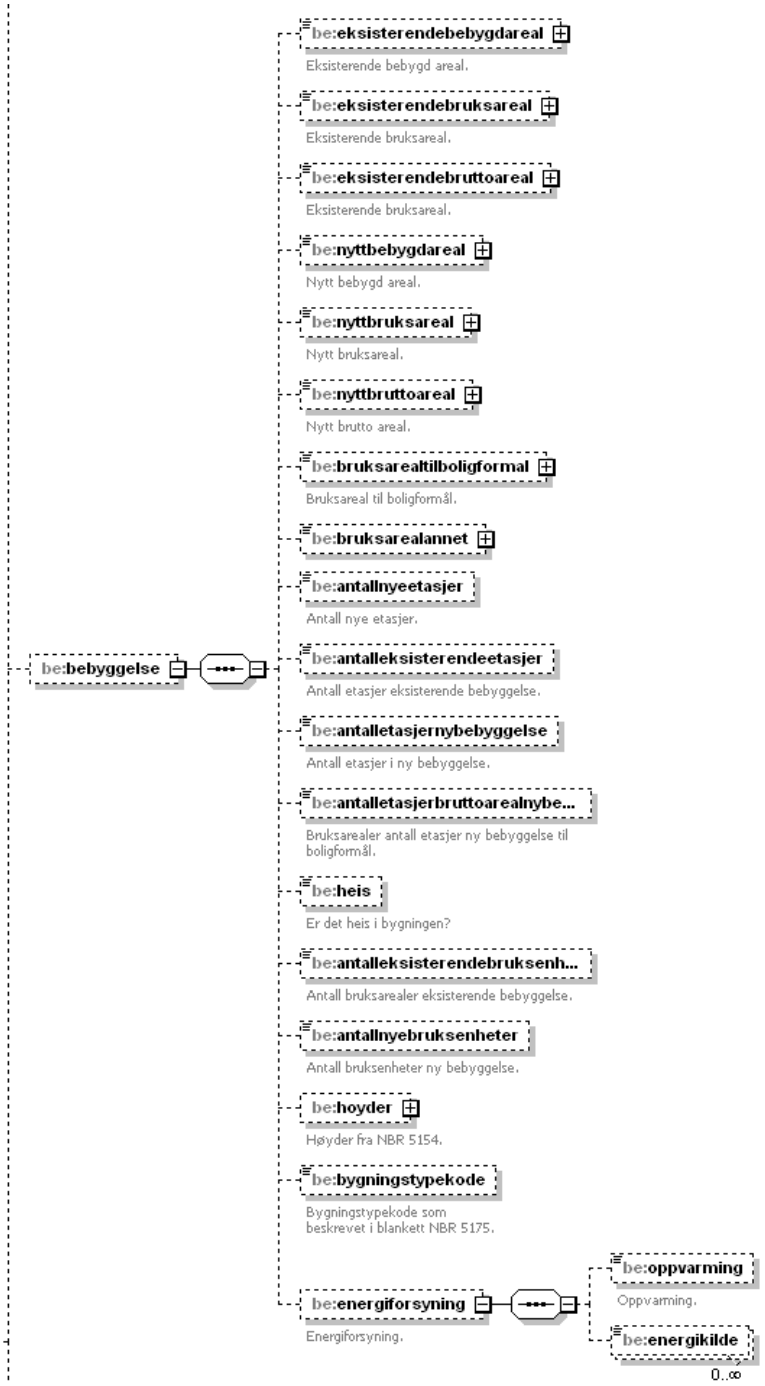

Figure 25 The element ”bebyggelse” in Byggsøk XML 1.2

5.5.4 infrastruktur

The element ”infrastructure” is covering similar sub-elements in the two XML versions. More specifically the elements named “adkomst”, “vannforsyning”, and “avlop” are kept. But with some modification of content. E.g. has “avlop” added a new element “krysserannengrunn” and in addition is “overvann” included as an element of “avlop”. The subelements under “veg” are only renamed, while under “vannforsyning” the element “tillatelseforkrysning” is kept and two new elements are added instead of the original ones.

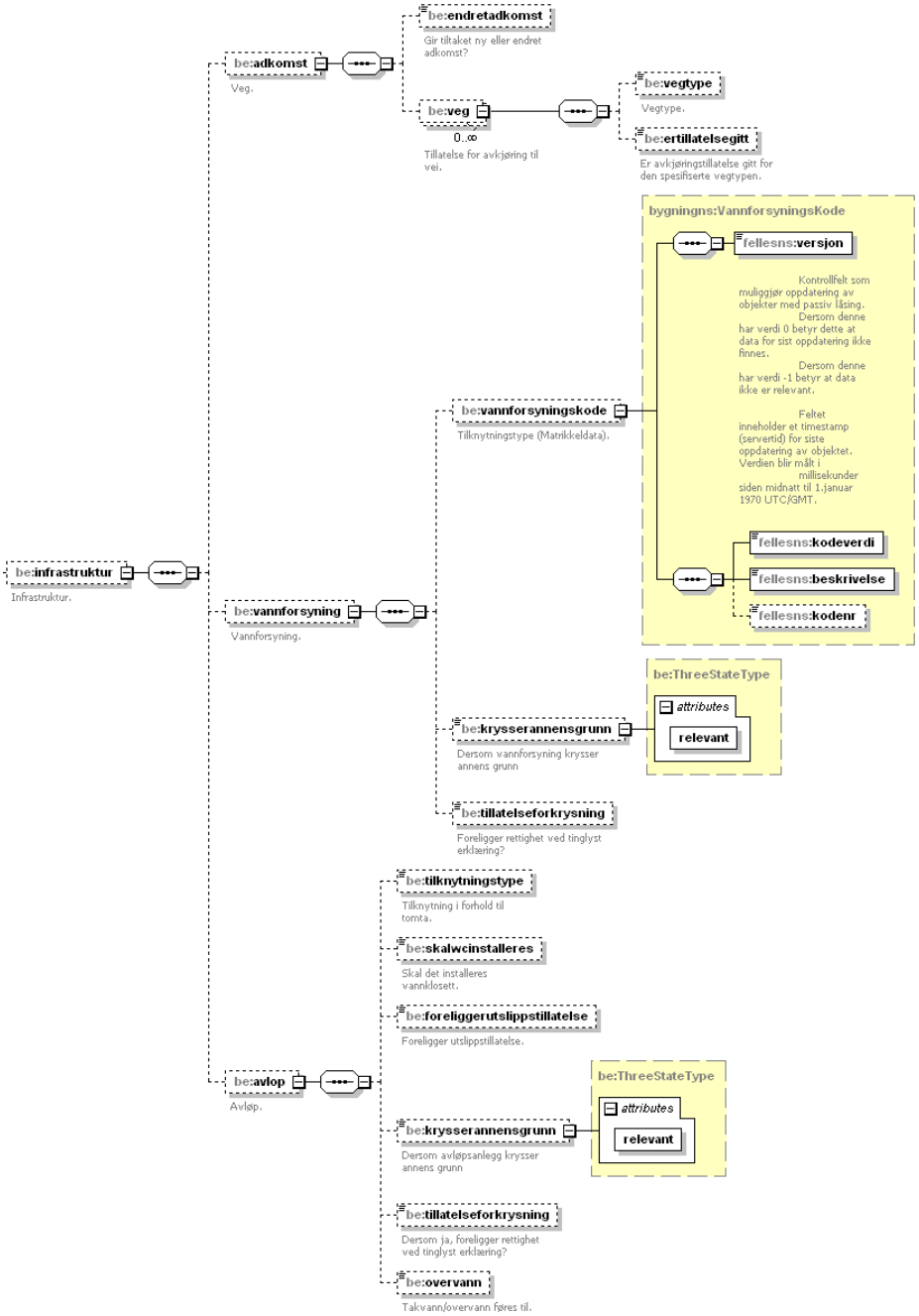

Figure 26 ”infrastruktur” in Byggsøk XML 2.0

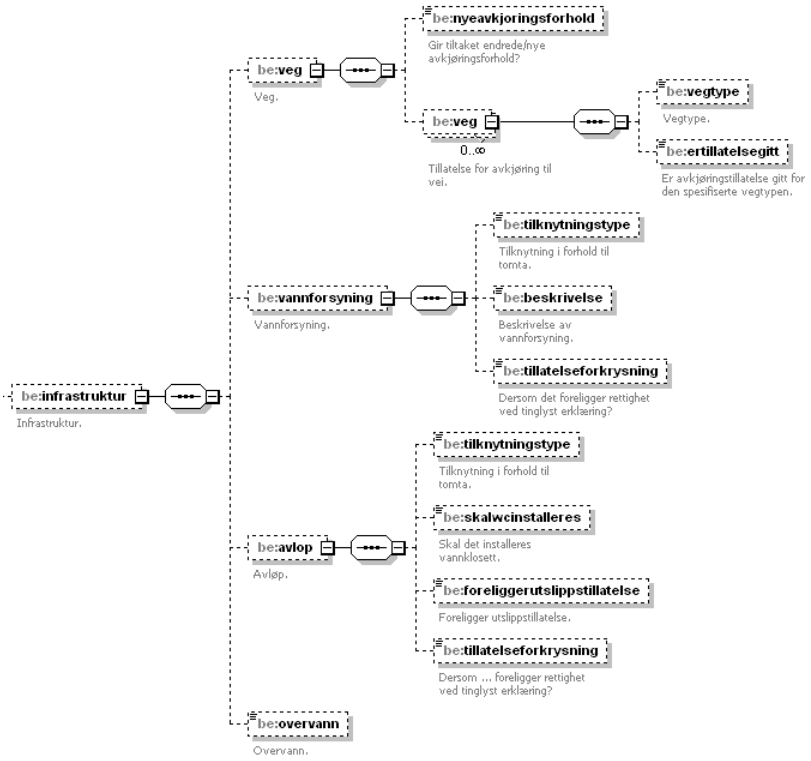

Figure 27 ”infrastruktur” in Byggsøk XML 1.2

5.5.5 boligspesifikasjon

The ”boligspesifikasjon” element is new in Byggsøk XML 2.0, covering the “bruksenhet” and “adresse”.

The content under “bruksenhet” is comparable to what is used to be under “gabregistrering” in the old code version. The element “adresse” is of type “adressens: Vegadresse”.

5.5.6 energiforsyning

This structure was previously a sub-part of ”bebyggelse” in the old code version.

5.6 ansvarsomradebeskrivelser

The element “ansvarsomradebeskrivelser” is a new element introduced.

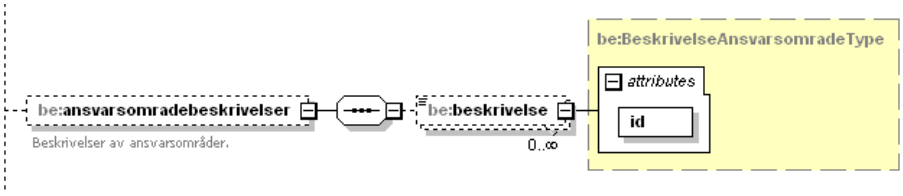

Figure 28 The new element ”infrastruktur” of Byggsøk XML 2.0

5.7 gjennomforingsplan

A nested element (structure) called “gjennomforingsplan” in Byggsøk XML 2.0 corresponds to the element called “ansvarogkontroll” in the old XML schema.

The sub-element called “kontrollerklering” is kept, both in name and immediate sub-structure, “prosjektering” and “utforelse”. But changes are present at a more detailed level. The sub-element called “samsvarserklering” is corresponding to the element called “kontrollplan” in the old version.

The old structures called “lokalgodkjenning” and “godkjenningsomrade” have been removed and two new element structures have been introduced, called “ansvarsfordeling” and “fagomrader”. The latter having some sub-elements of “lokalgodkjenning” and “godkjenningsomrade” but the structures are very different.

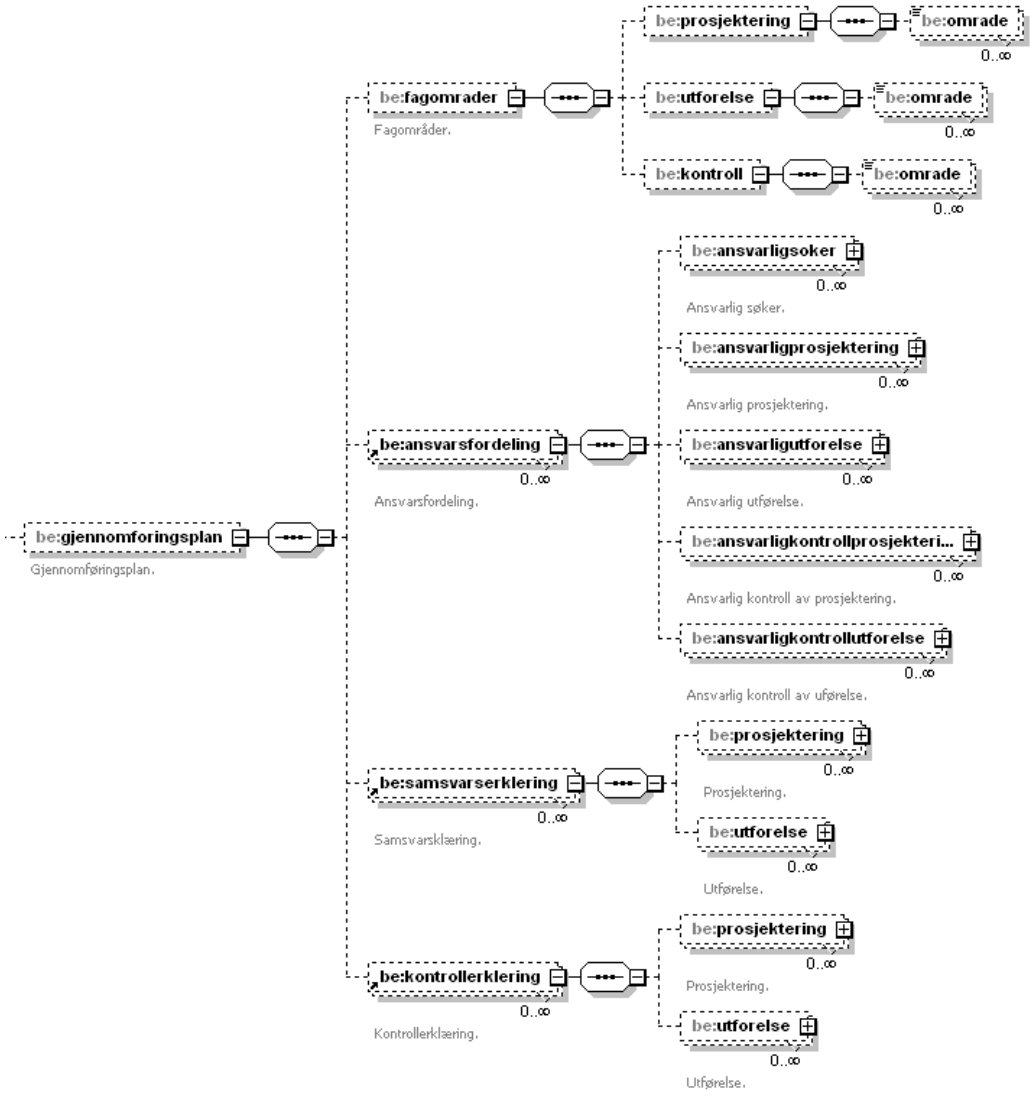

Figure 29 ”gjennomforingsplan” of Byggsøk XML 2.0

5.7.1 fagomrader

The nested element structure “fagomrader” is new and is describing values of different predefined enumerations ranges within the areas “prosjektering”, “utforelse”, and “kontroll”. Each value range is represented as a specific type.

5.7.2 ansvarsfordeling

The nested element structure “ansvarsfordeling” is basically a new structure, not present in the old code. It defines (in detail) the actors having the following roles: “ansvarligsoker”, “ansvarligprosjektering”, “ansvarligutforelse”, “ansvarligkontrollprosjektering”, and “ansvarligkontrollutforelse” all with an associated type defined.

Some elements are taken from the old structure, like “tiltaksklasse” from the old “kontollplan” sub-structure.

5.7.3 samsvarserklering

The element structure “samsvarserklering” in Byggsøk XML 2.0 corresponds to or at least has similarities, with “kontrollplan” in the old code version. The immediate sub-structure is similar to “kontrollplan”, consisting of “prosjektering” and “utforelse”. At a leaf element level, “fagomrade” is kept, “erkleringsignert” is renamed but has its correspondence to the old code. The element “mangler” in the old code is substituted with three new elements under “utforelse”.

5.7.4 kontrollerklering

The element “kontrollerklering” has kept its name and direct sub-elements “prosjektering” and “utforelse”.

But the sub-elements of “prosjektering” and “utforelse” have to a large extent been changed. But the element “kontrolldokumenter” has been kept and “ansvarlig” of type “PartRefType” has its counterpart in the old code. In addition, new elements have been introduced in the new code.

6 Concluding remarks

The current document can serve as an aid for those having to look into and compare the two code versions.

The document gives an indication of the differences between Byggsøk XML 1.2 and Byggsøk XML 2.0 without going into too much details. It describes in a top down fashion the differences, covering both minor deviations (or no deviations at all) and major deviations where new element structures are introduced in Byggsøk XML 2.0. It describes both renaming and restructuring of element structures.