



-- General Legislative Info --

-- Depts & Commissions --



Homepage

Standards Documents Draft Version 1.0

Members

[ERER Cost Benefit Analysis v1.0](#)

Upcoming Meetings

[ERER Standards Summary v1.0](#)

Meeting Minutes

[Legal Summary v1.0](#)

Resources on the Web

[Schema V3.0](#)

Subcommittees

[Change Control](#)

Task Force Forms

Pilot Activity

ERERTF Standards

2001 Legislative
Report

2002 Legislative
Report

2003 Legislative
Report

2004 Legislative
Report

Send comments regarding this site to:
www@commissions.leg.state.mn.us

Updated: 12/17/03(sk)

**ERERTF Business Analyst Services Project
Cost Benefit Analysis**

May 30, 2002

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Permission is granted to copy and use the individual documents herein. Reproduction or copying by any method for sale, resale or redistribution without the express written permission of the Minnesota Secretary of State is strictly prohibited. **Page 1 of 21**

I.	Purpose.....	3
II.	Executive Summary	3
III.	Considerations and Recommendations	5
A.	Modifications to Existing Systems	5
1.	All systems will require modification for model 3:	5
2.	Alternate model 3 option for counties:	5
3.	Proprietary systems:.....	5
4.	Model Descriptions	6
5.	Pros/Cons by Model.....	7
a)	Model 1	8
b)	Model 2	8
c)	Model 3	9
B.	Link to other public data	10
C.	Cost/Benefit Analysis	10
1.	General statistics:	11
2.	Potential labor cost avoidance:	11
3.	Potential other benefits:	12
a)	Reduced rejection rate.....	12
b)	Reduced data entry.....	12
4.	Qualitative benefits:.....	12
5.	Potential costs:	13
a)	Model 1	13
b)	Model 2	14
c)	Model 3	14
6.	Cost/Benefit Metrics	14
D.	Uniform fees	16
E.	Funding sources	16
F.	Incentives for indexing standards and electronic recording	18
G.	Preservation of investment in systems.....	19
H.	Electronic processing of fees and taxes	19
I.	Cost Benefit Analysis Template	21

I. Purpose

This document summarizes potential costs and benefits of participating in electronic real estate recording. Topics covered here address specific considerations presented in items 2, 23, and 31 through 37 of the ERERTF work plan dated January 15, 2001. Please note, the ERERTF work plan consideration is presented in italics at the start of each topic.

II. Executive Summary

County recorders and registrars of title throughout Minnesota work very hard to operate their offices efficiently and cost-effectively, and to date they have succeeded. However, as presently equipped, Minnesota recording offices can accept only paper documents for recording. Increasingly, the real estate, lending, title insurance, and consumer communities as well as the secondary mortgage market are urging Minnesota recorders and registrars to accept and record documents electronically.

A significant amount of information was captured during the interviews with Minnesota counties, private entities, and out-of-state counties as part of the effort to develop electronic real estate recording standards for the state. This information has been analyzed and used to evaluate the potential costs and benefits of implementing electronic real estate recording.

There are several approaches that counties in other states have taken to implement electronic real estate recording. These approaches, called “models” can be categorized as follows:

- ❑ Model 1: Transmittal of document images only
- ❑ Model 2: Transmittal of data related to the document, and an image of the document.
- ❑ Model 3: Transmittal of an integrated electronic document that includes both data and presentation information.

There are pros and cons for implementing each model. Model 1 is the least complex, and model 3 is the most complex. In general, model 1 is the lowest cost to implement, but produces the lowest benefits, while model 3 is the most costly to implement, but provides the greatest benefits. This report includes a detail discussion of the models, and the pros and cons associated with implementing each model.

A model 3 implementation of electronic real estate recording provides a number of benefits. These include:

- ❑ A significant reduction in the work effort required by counties to record documents. This will allow counties to avoid staffing increases as volumes increase, and to improve service to the public.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- ❑ A significant reduction in the elapsed time incurred in recording documents. What currently may take days can be done in seconds. This is of significant benefit to the private sector organizations that are submitting documents for recording.
- ❑ A significant reduction in the document rejection rate, benefiting both the private sector and the counties.
- ❑ Significant benefit to consumers. Electronic recording will largely eliminate the delay in recording real estate transactions (which today can take days, weeks, or months). This means that consumers:
 - Can be more secure in the knowledge that their purchase or sale is quickly posted to the public record.
 - Will avoid potential fee increases since the private sector organizations and counties will be more efficient in preparing and recording documents.
- ❑ A reduction in work effort required by the private sector to create the documents.
- ❑ Enhanced customer service offered by the counties, including
 - The ability to receive documents 24 hours/day, 7 days/week
 - More uniformity among counties
 - More time to address customer needs

Several counties outside of Minnesota have implemented electronic real estate recording. Even those that implemented model 1 approaches have experienced 15% improvement in staff productivity. For larger counties, a 15% productivity improvement could result in over \$150,000 annually of cost avoidance. For lower volume counties, however, the cost avoidance potential may be less than \$20,000 annually. For these counties, electronic recording may be justified based on enhanced customer service, and they will likely implement a less integrated approach.

Information collected from out-of-state counties does not provide a clear estimate for implementation costs. Many implemented electronic recording as part of a larger effort to replace the county recording system. None of the counties attempted to track metrics that could be used to estimate implementation costs.

The implementation costs could vary significantly by county, and will be dependent on the model chosen, the architecture of the county's existing systems, the capabilities and availability of county staff, and other variables. Rather than speculate on implementation costs, it was decided that a series of metrics should be tracked during the pilots that can be used by other counties to estimate their

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

implementation efforts. This report identifies the metrics that should be captured during the pilots.

III. Considerations and Recommendations

A. Modifications to Existing Systems

2. Consider estimating the extent to which existing systems will require modification or replacement to accommodate any changes that the ERED Task Force recommends.

Currently over twenty unique recording systems are in place throughout Minnesota counties. This variance in technology prohibits a detailed gap analysis of all counties. However, some generalized observations can be made.

1. All systems will require modification for model 3:

The mechanisms required for counties to receive electronic transactions are currently not in place. All counties will require system modifications to accommodate model 3 electronic recording with automatic index entry. The magnitude of change required varies from county to county but all counties should anticipate a significant effort and plan for a material resource commitment. Based on information received from out-of-state counties, counties should anticipate anywhere from two to twelve months to prepare for electronic recording. In most cases at least six months of preparation time was required.

2. Alternate model 3 option for counties:

Because of the magnitude of change required to implement model 3 systems, small to mid-size counties may opt to receive model 3 documents without automation. In this scenario counties could use current browser technology to print the electronic documents and process manually. A Windows based platform should be built to accept model 3 transactions, perform validations, and place them in a folder for browser processing. This platform should also support return notices of recording or rejection. Once built, this platform could be used by any county to accept and print model 3 transactions.

3. Proprietary systems:

Counties that have implemented proprietary systems will find the conversion to electronic recording more time consuming and expensive. Since cost and effort for development and testing cannot be shared among multiple counties this burden will fall exclusively on the individual county. As a result, these counties will need to be thorough during the assessment phase of their project to develop an accurate resource plan and timeline.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

4. **Model Descriptions**

The Pilot Framework and Scope Subcommittee intends to consider all models in their analysis of how to proceed into the next phase. In our opinion this is the appropriate approach to take. All three models merit consideration and will need to be evaluated relative to trusted submitter and county preferences and capabilities.

Following are brief definitions of the three models of electronic recording. The definitions are based on concepts presented by Fannie Mae and are emerging as standard vocabulary in the industry.

Model 1: Image replaces paper document – At this level the recording process is enhanced by replacing paper documents with electronic images. The submitter must transmit an electronic image of the document to be recorded to the county office. Once received, the county reviews the information on the image and manually enters indexing information into the recording system. The submitter always retains the original document. However, the image becomes the document of record. Efficiencies are achieved at the county by eliminating scanning and mailing processes.

Model 2: Image with electronic signature and indexing information – At this level the recording process is further enhanced by inclusion of indexing data elements and electronic signatures. The submitter transmits an electronic image that is wrapped with a digital signature and certain data elements that will be used to index the document. Once received, the county reviews the information and uses the data provided as indexing information for the recording system. Additional efficiency is gained at this level by eliminating some data entry.

Model 3: Fully electronic – At this level the entire recording process can be completed without manual intervention. The submitter creates an XML based electronic document that includes both data and presentation information. This document is wrapped with a digital signature and may also include digitized signatures. Once received, the county systems will validate document integrity and proceed with automated indexing. Business rules will be used to validate recordability and an image of the document will be generated which becomes the document of record. Receipt and recording information is returned to the submitter electronically. This level provides the greatest efficiency improvement since no manual intervention is required and processing time is greatly reduced.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

5. Pros/Cons by Model

To assist the Pilot subcommittee in the evaluation of options, a brief discussion of the advantages and disadvantages of each model follows.

	Model 1	Model 2	Model 3
Pro	<ol style="list-style-type: none"> 1. Lowest barrier to entry for counties 2. Lowest barrier to entry for companies 3. Cost savings to private sector (delivery and process) 4. Easier proof of concept/pilot 5. Proven cost savings to counties that also implemented process redesign 	<ol style="list-style-type: none"> 1. Reduced data entry at county (potentially 50%) 2. May reduce document rejection (validation rules within private systems) 3. Allows for electronic indexing 	<ol style="list-style-type: none"> 1. Significantly reduces data entry at county 2. Reduced document rejection 3. Significantly reduce elapsed recording time 4. Document integrity improves over other models 5. Reduced work effort for trusted submitters from process flow efficiencies 6. Encourages more business-to-business activity throughout real estate industry
Con	<ol style="list-style-type: none"> 1. May hinder model 3 efforts 2. May not reduce elapsed recording time 3. Minimal change in document rejection rate 4. Less assurance of document integrity 5. Inconsistent image quality 6. No electronic index updating capability 	<ol style="list-style-type: none"> 1. Manual processing/review required 2. Less assurance of document integrity 3. May not reduce elapsed recording time 4. Inconsistent image quality 	<ol style="list-style-type: none"> 1. Additional system complexity relative to model 1 (private and county) 2. Additional cost to implement relative to model 1 (private and county) 3. Full integration not practical for many counties

a) Model 1

Pro:

- A model 1 implementation is open to the largest number of counties and trusted submitters because it should require the smallest capital outlay and the least technical expertise to implement.
- Filing fees generated through model 1 efforts could be used to fund more sophisticated electronic filing systems.
- Based on information received during the out-of-state interviews, counties could achieve labor savings of 15%.
- Because of the lower technical barriers, a model 1 application should be easier to establish as a proof of concept.

Con:

- There is potential that focusing efforts on a model 1 implementation may hinder progress on a model 3 initiative. Trusted submitters may choose to forego more advanced electronic recording if they realize adequate improvements in efficiency through a model 1 effort.
- Since manual intervention is required in a model 1 implementation, counties may not significantly reduce elapsed recording time.
- Since model 1 implementations may not include robust error checking, document rejection rate could remain largely unchanged.
- Since document modifications (e.g., white-outs) are difficult to detect on a scanned image, there is less assurance of document integrity.
- Quality of the scanned image is expected to vary by submitter.
- This approach does not provide for electronic update of indexes.

b) Model 2

Pro:

- Additional processing efficiencies can be realized in a model 2 implementation. By receiving indexing data elements along with the electronic document image, half of the double-blind data entry at many counties could be eliminated.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- The document rejection rate could be improved by implementing validation rules within the private-side systems.
- This approach does allow for electronic update of indexes.

Con:

- Some level of manual processing/review would still be required at the counties. As in model 1, this may prevent a material reduction in elapsed recording time.
- Similar to model 1, there is less assurance of document integrity.
- Quality of the scanned image is expected to vary by submitter.

c) Model 3

Pro:

- Model 3 allows for the greatest reduction in work effort by eliminating data entry at the county. Because of this, elapsed recording time is also significantly reduced.
- Since robust validation rules can be implemented, the document rejection rate should be greatly improved.
- The private sector should realize a reduced work effort because of process flow efficiencies provided by model 3.
- This model should promote more business-to-business integration throughout the Real Estate industry as electronic processing pushes further upstream.
- Because of digital signatures and encryption, document integrity improves over model 1 or 2.

Con:

- With automation comes complexity. Additional business rules and processing steps must be encapsulated within the system.
- Both the private sector and counties will need to implement systems more complex than those required at model 1 or 2. Because of the additional complexity, model 3 applications are more costly to develop and implement.
- Because of the complexity of implementation, full model 3 integration may not be practical for many counties.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

B. Link to other public data

23. Consider studying the costs and benefits of linking real estate records with other layers of public data including, for example, data regarding transportation, hydrology, topography, and political boundaries, as part of the statewide geographic information system (GIS).

The document standards for electronic recording developed as part of this project include a field for Property Identification Number (PIN). Through this field, recording systems can be linked to county GIS systems. Inclusion of this field allows for future enhancements but does not require additional cost at implementation. The cost to integrate GIS with the recording system will vary by county. Counties that are currently planning to implement GIS should proactively consider linking to the recording system via PIN. Early consideration of this ability should reduce integration costs. However, it is important to note that most counties do not currently capture PIN within the recording system. To do so may require both system and procedural changes.

The benefits of linking GIS and recording systems are largely qualitative. Improved customer service is a critical benefit that easy access to information can provide. Integration of GIS and recording systems could provide functionality that would allow the public to locate recorded documents based on street address. This is a logical extension of functionality currently in place at some counties that allows for property tax and ownership information to be located based on street address.

Recommendation:

- **Counties that are planning on implementing GIS should plan for inclusion of PIN numbers in their recording systems so that integration with GIS will be supported.**

C. Cost/Benefit Analysis

31. Consider estimating the costs and benefits of (i) operating the real estate recording system in its current form, and (ii) implementing and maintaining any technology upgrades or other changes that the ERER Task Force recommends.

Due to the significant variation in recording systems and processes in place at the 87 Minnesota counties a cost/benefit analysis of great detail is not feasible. However, some high-level factors should be considered.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

1. General statistics:

Information collected during the county interview and survey process has been analyzed and some general productivity statistics are presented here. Counties were sorted based on total real estate document volume (combined abstract and Torrens). Three sample groups were used for comparison purposes. Statistics were drawn from the 10 highest volume counties, the 10 lowest volume counties, and the 10 median volume counties. Averages from each group were calculated and the results are presented below. It should be noted that the constraint for the 10 lowest volume counties is total volume, not productivity. The same statistics should be updated after implementation of electronic recording to evaluate if anticipated savings were realized. Note that the following FTE's are from the Recorder's office, and do not include other departments that are involved in the recording process (e.g., auditor).

	Averages		
	Highest Vol 10	Median Vol 10	Lowest Vol 10
Documents per day	420	30	7
Recorder's FTE	23.6	3.1	2.1
Documents per Recorder's FTE	18	10	3

2. Potential labor cost avoidance:

Information received from an out-of-state county indicates that over time a 15% improvement in labor productivity was achieved through implementation of a model 1 application and workflow enhancements. In most cases, a head count reduction did not occur because transaction volumes increased. Rather, the same number of personnel were able to process a higher volume of records. This means that the counties were able to avoid additional labor costs that would have been incurred to handle the higher volumes. This metric is reflected in the following table and indicates that for the 10 highest volume counties an annual labor cost avoidance of nearly \$160,000 could be achieved. In this scenario document volume per FTE increases from 18 per day to 21 per day. Based on observation and information collected through the interview process, this seems to be a realistic estimate. It is expected that this labor efficiency is achieved by eliminating document scanning and mailing time.

The chart below assumes an average FTE cost of \$45,000 per year. This cost may be higher or lower depending on the labor costs for a specific county. Labor

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

savings for the median 10 and bottom 10 counties was much less significant. At those volume levels a .5 FTE or smaller reduction is expected. This translates into potential savings of \$21,000 or less.

No out-of-state county has yet utilized a model 2 or model 3 application long enough to have statistics available on labor savings. However, it is expected that by further reducing data entry and manual review time that labor savings would increase beyond the levels achieved at model 1.

	Averages		
	Highest Vol 10	Median Vol 10	Lowest Vol 10
FTE's needed to support a 15% increase in volume	3.5	0.5	0.3
Fully loaded comp per FTE	\$45,000	\$45,000	\$45,000
FTE cost avoidance	\$159,300	\$20,925	\$14,175

3. Potential other benefits:

In addition to potential labor savings, counties should expect to see other quantitative benefits from electronic recording.

a) Reduced rejection rate

Basic validation embedded in an electronic recording application will reduce the document rejection rate. Minimizing the number of documents that are handled multiple times will in effect reduce document volume. This will allow counties to increase throughput of recorded documents.

b) Reduced data entry

Data entry in other departments (e.g., Department of Revenue) could be eliminated. Passing information electronically to other areas removes the need for redundant data entry and in aggregate reduces government costs.

4. Qualitative benefits:

There are significant qualitative benefits that will be achieved through electronic recording. The most significant benefit is enhanced customer service. All counties have the objective of enhancing customer service and improving customer satisfaction. Businesses and people are expecting to interact with

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

government institutions electronically, 24 hours/day, 7 days/week. While difficult to translate into hard dollars, an improvement in customer service and customer satisfaction is an important objective and merits strong consideration during a feasibility assessment at the county level.

Other qualitative benefits include more uniformity among counties, which again will make it easier for their customers to do business. In addition, the work for county employees will be more rewarding, because electronic recording will free them from tasks that are necessary, but repetitive (e.g., data entry, scanning).

There also will be significant benefit to consumers. Electronic recording will largely eliminate the delay in recording real estate transactions (which today can take days, weeks, or months). This means that consumers:

- ❑ Can be more secure in the knowledge that their purchase or sale is quickly posted to the public record.
- ❑ Will avoid potential fee increases since the private sector organizations and counties will be more efficient in preparing and recording documents.

5. Potential costs:

Clearly the largest anticipated cost for electronic recording will be the expense of developing, implementing, and testing the communications system and modifications to existing county systems. Labor (both staff and contract), software, and hardware costs will most likely be the largest system development expenditures. Additional implementation costs could include digital certificates, infrastructure enhancements, and training expenses. On-going costs must also be considered.

Information collected from out-of-state counties does not provide a clear estimate for implementation costs. Many counties implemented electronic recording as part of a larger effort to replace the county recording system. A summary of the costs reported by the out-of-state counties follows:

a) Model 1

Two of the out-of-state counties interviewed implemented model 1 solutions. One of these counties implemented electronic recording along with other system enhancements for a total cost of \$600,000. They recently implemented an Internet version of the electronic recording system at a cost of \$400,000.

The other model 1 county indicated that their costs to implement electronic recording were minimal since most of the infrastructure was already in place.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

b) Model 2

One of the out-of-state counties interviewed implemented a model 2 solution. This county implemented electronic recording as part of a \$2.5 million effort.

c) Model 3

The remaining two out-of-state counties interviewed implemented model 3 solutions. One of these counties indicated that the cost to modify their systems was approximately \$100,000. Costs to establish the link between trusted submitters and the county were funded by a third party.

The other county indicated that trusted submitters pay for their own modifications to submit documents electronically but did not provide an estimate for the county's cost to implement.

It is important to note that both of these counties utilize a third party as a link between the county and trusted submitters.

As noted above, there is no discernable pattern for determining potential costs for implementation using the experience of out-of-state counties. Within Minnesota, the cost to implement electronic recording could vary substantially among counties, depending on a number of factors, including:

- Model implemented
- Purchased software upgrade vs. custom system integration
- Number of systems and architecture of systems to be integrated
- Availability and experience of county information processing personnel

Given the number of variables involved, it was decided that an attempt to estimate these costs at this point in time would be fairly speculative. Instead, it was agreed that we should identify the metrics that should be captured in the pilots so that a reasonable basis for estimating implementation costs, and ongoing benefits/costs, can be determined.

6. Cost/Benefit Metrics

The counties, trusted submitters and vendors who will participate in the pilots will be asked to collect metric information during the conduct of the pilots. This information will be valuable in helping to estimate costs and benefits of statewide electronic recording, and to determine the funding that may be needed to achieve electronic recording in Minnesota. Metrics will be needed for implementation and for ongoing operations.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Implementation Metrics

Each county, trusted submitter and vendor that participates in the pilots will be asked to keep track of the work effort and other expenditures that are incurred in preparing for pilot processing. The following are the categories of work effort/other expenditures that should be tracked.

- Type of Pilot (e.g., Model 3 Satisfactions and Certificates of Release)
- Internal Staff Hours, Average Cost Per Hour, Total Internal Cost
- Contracted Hours, Cost Per Hour, Total Cost
- Additional Hardware (description and amount)
- Additional Software (description and amount)
- Digital Certificate Expenditure
- Training Hours, Average Cost Per Hour, Total Cost
- Other Expenditures (description and amount)

Internal hours should be tracked by position type, if there are significant differences in average cost per hour among positions.

Ongoing Operations Metrics

Each county and trusted submitter will also be asked to identify savings and additional costs for ongoing operations that are experienced from performing the pilot. In order to be able to quantify differences, metrics will be needed from before and after pilot processing is implemented. Metrics will need to be tracked by document type, if possible, since the amount of time spent will vary significantly, depending on the document. If both Toren's and Abstract documents are included within the Pilot, Metrics should be tracked for both. It is recommended that the metrics should be captured over at least a three-week period (before pilot implementation and after pilot implementation). Post pilot implementation metrics should be captured after sufficient time has elapsed to stabilize pilot processing. The following are the categories of metrics that should be tracked by the county and by the trusted submitter.

- Type of Pilot (e.g., Model 3 Satisfactions and Certificates of Release)
- Number of documents processed
- Staff Hours Spent Processing, Average Cost Per Hour, Total Internal Cost
- Average Staff Processing Cost per Document (total internal cost/# of documents)

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- Number of Documents Rejected
- Average Number of Days From Date of Receipt to Date Indexed
- Total Delivery Costs for the Documents (mail, FedEx, courier, etc.)
- Delivery Cost per Document
- Other Expenditures (description and amount)
- Other Savings (description and amount)

Depending on the document type and model, it may be difficult for a county or trusted submitter to track certain ongoing operations metrics (before or after). Also, the volume of transactions processed may not be sufficient to reasonably determine certain metrics. These factors will need to be considered when tracking ongoing operations metrics for each pilot.

D. Uniform fees

32. Consider the appropriateness and feasibility of making recording and similar fees, as well as copying and certification charges, uniform in all counties.

Recording fees are generally uniform among counties, but some variance does exist. Less uniformity exists in the rate and application of various miscellaneous fees (e.g., copying charges). One common reason given for document rejection was incorrect fees and taxes. A uniform fee structure could reduce the rejection rate since document submitters would have one consistent fee table rather than multiple variations. The variation in fees is largely a result of county specific needs and initiatives. An alternative would be to provide improved access to the county specific fee structures. Another alternative is to embed the fee table within any application developed to support electronic recording. This would provide immediate validation of fees and reduce the rejection rate.

Recommendation:

- **Mechanisms to improve access to county fee structures should be included in applications developed to support electronic recording.**

E. Funding sources

33. Consider public and private funding alternatives, Internet advertising, new user access fees, a new statewide technology trust fund, and allowing counties to retain current mortgage registry and deed taxes and the recording surcharge as possible revenue sources, in order to assure that every county can pay for any technology upgrades or other electronic real estate recording initiatives that the ERED Task Force recommends.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Several options are available to fund electronic recording initiatives at the county level. One option is to continue with the ERER surcharge but direct that money to the county rather than the Task Force. On average the 10 highest volume counties would receive slightly more than \$50,000 per year (assuming \$.50 surcharge per document and current volume levels). The 10 median counties would receive less than \$5,000 each. The 10 lowest volume counties would receive less than \$1,000 each. This option alone is not likely to be adequate to support implementation costs.

A supplemental source of funding to consider is an additional filing fee based on document form. Documents filed in paper form could be charged a fee higher than documents filed electronically. For example electronic documents could carry a surcharge of \$.25 each and paper documents could be subject to a surcharge of \$1.00 each. This approach would align with the anticipated costs to implement electronic recording. A county will need more funds initially to develop and implement the electronic recording systems. Over time, development costs will decline significantly but maintenance costs will remain. The fee structure described here will match the system lifecycle costs while providing incentive for trusted submitters to move to electronic recording.

Assuming a \$.25 electronic and \$1.00 paper document surcharge, average revenue for the 10 highest, 10 median, and 10 lowest volume counties could project as follows:

	Averages		
	Top Vol 10	Median Vol 10	Lowest Vol 10
Annual document volume	104,100	9,300	1,600
Annual satisfaction volume	28,400	1,500	200
Annual closing package volume	90,300	7,800	1,300
Revenue: all paper	\$104,100	\$9,300	\$1,600
Revenue: 80% satisfactions electronic	\$87,060	\$8,400	\$1,480
Revenue: 50% closing packages & 80% satisfactions electronic	\$50,048	\$4,537	\$768

A final consideration is to pool system costs for smaller counties. While not a funding source, this would reduce the amount of funding necessary for a county to participate in electronic recording. Counties that share a common vendor for recording systems may by default benefit from a collective effort to implement electronic recording. Some vendors have already begun preparing for electronic recording and some partnerships have been formed with established electronic recording vendors. In these cases it is expected that the cost to the county to implement electronic recording will be greatly reduced. The assumption is that vendors will absorb some of the cost to provide enhanced systems that improve

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

competitive position. Alternatively, counties could pool funds to develop a common system to interface with trusted submitters.

F. Incentives for indexing standards and electronic recording

34. Consider proposing that the legislature offer counties financial or other incentives (1) to adopt uniform indexing standards prospectively, and (2) to amend existing indexes to comport with them.

36. Consider proposing educational, financial, or other incentives to encourage those in the public and private sector that currently use the real estate record system to participate in any electronic recording initiatives that the ERED Task Force recommends.

Adoption of uniform grantor/grantee indexing standards would provide statewide consistency. As noted in the Electronic Recording Standards Summary, it is our recommendation that counties adopt the uniform indexing standards as they implement electronic recording systems. To improve adoption of the indexing standards, counties should feel ownership in their development. To foster this, early adopters of the indexing standards should be offered the opportunity to participate in the standards maintenance effort.

Financial incentives should also be considered to encourage adoption of indexing standards and implementation of electronic recording. As mentioned in the above sections, cost is a barrier to entry for most counties. The Task Force should consider the objectives of this effort. If a primary goal is to establish electronic recording throughout the State, financial support will be required. Conversely if, county autonomy is preferred, State support should be withheld and electronic recording should be implemented only where economically justified. However, it is our opinion that electronic recording may not make sense for all counties. Many smaller counties provide same day recording and do not have sufficient volume to justify a move to electronic recording at this time.

It should also be noted that county support for electronic recording is not universal. Some counties are resistant to further dependence on technology. Efforts would need to be initiated to further explore the source of hesitation and explain in greater depth the benefits of electronic recording.

For the private sector it is our opinion that the potential gains in efficiency and cost savings will provide adequate incentive for companies to participate. However, an education campaign may be required to fully communicate the benefits to the private sector. Initial focus should be on title companies since they provide the primary conduit between the private sector and the counties.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Recommendation:

- **Provide early adopters of electronic recording with an opportunity to participate in the standards maintenance organization.**
- **Evaluate Task Force objectives to determine if public support is appropriate.**
- **Initiate education campaign directed to counties and trusted submitters on benefits of electronic recording.**

G. Preservation of investment in systems

35. Consider protecting, to the extent feasible, the significant public- and private sector investments in real estate record systems that have been made to date.

The electronic recording standards developed as part of this effort have been designed to fit within the current system framework to the extent possible. XML is a technology that allows existing systems to be extended rather than replaced. As such, most participants in electronic recording should be able to enhance current systems to produce or receive electronic documents in the Minnesota standards. Some entities however may view this as an opportunity to make more pervasive enhancements and couple the adoption of electronic recording with other initiatives such as system replacement. Such an approach may be appropriate for an individual entity but should not be necessary solely to participate in electronic recording.

Recommendation:

- **Document standards must allow for systems to be extended rather than replaced.**

H. Electronic processing of fees and taxes

37. Consider whether it is appropriate and feasible for counties to collect filing fees and other revenues associated with the real estate recording process electronically.

Electronic processing of recording fees and taxes is integrated into the Use Cases and Best Practice Workflow. It is assumed that funds from a trusted submitter will be deposited into an escrow account. Recording fees and taxes would be deducted from that account. This allows for instant validation and collection of funds.

Electronic recording without electronic processing of fees and taxes would be difficult to reconcile. It could also allow for recording of documents without

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

adequate funds or conversely, a significant delay in recording while funds are confirmed. An instant collection of fees and taxes is required. For piloting of satisfactions/certificates of release, an escrow account is a straightforward approach. Alternative electronic payment options, such as ACH and credit card should be considered for piloting/ongoing processing of larger dollar transactions.

Recommendation:

- **Implement escrow accounts with trusted submitters for payment of taxes and fees.**
- **Investigate alternative payment options as part of the pilot process or prior to standards implementation.**

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

I. Cost Benefit Analysis Template

Quantitative Costs

	Implementation Costs						Annual On-going Costs
	Analysis	Design	Development	Testing	Implementation	Total	
Labor - Staff						-	
Labor - Contract						-	
Hardware						-	
Software						-	
Digital Certificate						-	
Infrastructure						-	
Training						-	
Maintenance Contract						-	
Transaction Fees						-	
Other						-	
Total	-	-	-	-	-	-	-

Quantitative Benefits

	Public	Private	Total Annual
Filing Fee (ERERTF portion only)			-
Productivity Savings			-
Expense Reduction			-
Employee Reallocation			-
Total	-	-	-

Quantitative Cost/Benefit

	Year 1	Year 2	Year 3	Year 4	Year 5
Implementation Costs	-				
Annual On-going Costs	-	-	-	-	-
Annual Benefits	-	-	-	-	-
Net Benefit (Cost)	-	-	-	-	-
Cumulative Benefit (Cost)		-	-	-	-

Qualitative Benefits

	Public	Private
Reduced Processing Time		
Improved Customer Satisfaction		

Notes:

- 1) All values are in current dollars and not adjusted for the time value of money
- 2) Costs and benefits listed are assumed to be incremental from current state
- 3) Depreciation/Amortization of implementation costs not included in on-going expenses to avoid redundancy

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

**ERERTF Business Analyst Services Project
Electronic Recording Standards Summary**

May 30, 2002

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Permission is granted to copy and use the individual documents herein. Reproduction or copying by any method for sale, resale or redistribution without the express written permission of the Minnesota Secretary of State is strictly prohibited.

Page 1 of 68

I.	Purpose.....	4
II.	Executive Summary	4
III.	Electronic Recording Standards.....	5
IV.	Other Functional Considerations and Recommendations.....	6
	A. Data Preservation.....	7
	B. Open standards.....	7
	C. Right to Privacy	8
	D. Tract Index	9
	E. Real Estate Records	9
	F. Parcel Identification Numbers - PIN.....	10
V.	Other Technical Considerations and Recommendations	11
	A. E-Signature	11
	1. Digital Signatures.....	11
	a) Use of Public Keys.....	12
	b) Multiple Parties Should Not Sign the Same Data	12
	2. Electronic Signatures	12
	B. Target Namespace.....	13
VI.	Other Process Considerations and Recommendations.....	14
	A. Maintenance of Standards.....	14
	B. Procedures and policies.....	14
	1. Workflow:	15
	a) Trusted submitter qualification	15
	b) Document submission.....	15
	c) Document validation.....	16
	d) Document recording.....	16
	2. Use Cases:.....	16
	3. Payment method:	17
	4. Storage and retrieval:	17
	C. Ancillary Functions and Documents.....	17
VII.	Grantor/Grantee Indexing Standards	18
	A. Creation and revision of uniform grantor/grantee indexing standards	19
	B. Mandatory use of uniform grantor/grantee indexing standards.....	20
	1. Conversion of legacy information:	20
	2. Programmatic normalization of index entries:.....	21
	a) Name sequence and concatenation:	21
	b) Abbreviation standards:	21
	c) Special characters:	21
	d) Human vs. non-human names:.....	21
	e) Keying process:.....	22
VIII.	Recommendations for the pilot phase.....	22
IX.	Future Consideration.....	24
	Appendix A - Schema and Data Element List.....	26
	Appendix B - Best Practice Workflow	36
	Appendix C - Satisfaction Use Case.....	40

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Appendix D - Closing Package Use Case.....	46
Appendix E – Evaluation Criteria.....	63
Appendix F – Definition of Electronic Recording Models.....	65
Appendix G – Deliverables Mapping	66
Appendix H – Model 1 Standards.....	67

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

I. PURPOSE

This document includes the electronic real estate recording standards prepared by the BenNevis team for the ERER Task Force. The majority of the standards are encapsulated in the best practice workflow, use cases, data element list, and XML schema contained within Appendixes A through D.

In addition to the electronic recording standards, BenNevis was asked to address many of the 37 considerations listed in the ERERTF work plan dated January 15, 2001. A discussion of alternatives for most of those considerations is included within this document. Discussion of the legal topics contained within the work plan is captured in the Legal Considerations Summary. Discussion of the financial topics contained within the work plan is captured in the cost benefit analysis.

Please note, the text of the ERERTF work plan consideration is presented in italics at the start of each topic.

II. EXECUTIVE SUMMARY

Virtually everyone uses and relies on the real estate record. Home ownership is the single biggest investment of most Minnesota families. Mortgages are a critical component of the financial industry. The property tax system relies on the real estate record to determine ownership of parcels that are subject to taxation. The interests of citizens, the mainstay of the economy, and the operation of government all depend on the real estate record.

County recorders and registrars of title throughout Minnesota work very hard to operate their offices efficiently and cost-effectively, and to date they have succeeded. However, as presently equipped, Minnesota recording offices can accept only paper documents for recording. Increasingly, the real estate, lending, title insurance, and consumer communities as well as the secondary mortgage market are urging Minnesota recorders and registrars to accept and record documents electronically.

A number of benefits are expected from electronic real estate recording. These include:

- ❑ A significant reduction in the work effort required by counties to record documents. This will allow counties to avoid staffing increases as volumes increase, and to improve service to the public.
- ❑ A significant reduction in the elapsed time incurred in recording documents. What currently may take days can be done in seconds. This is of significant benefit to the private sector organizations that are submitting documents for recording.
- ❑ A significant reduction in the document rejection rate, benefiting both the private sector and the counties.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- ❑ Significant benefit to consumers. Electronic recording will largely eliminate the delay in recording real estate transactions (which today can take days, weeks, or months). This means that consumers:
 - Can be more secure in the knowledge that their purchase or sale is quickly posted to the public record.
 - Will avoid potential fee increases since the private sector organizations and counties will be more efficient in preparing and recording documents.

The cornerstone to electronic real estate recording in the State of Minnesota is the Electronic Recording Standards. The standards assure the private sector and the Minnesota counties that there is a uniform approach for sending and receiving documents electronically. With potentially 87 counties and hundreds of private organizations participating in electronic recording, the Electronic Recording Standards are absolutely necessary.

Substantial research has gone into the development of Electronic Recording Standards. All Minnesota counties were visited on-site or interviewed by phone to gain background on the current state of real estate recording and discuss how electronic recording could fit within the county offices. Several private entities were interviewed to assess sources and uses of recording information. Best practices were collected via interviews with several out-of-state counties that have already implemented electronic recording. Additionally, vendors and industry organizations were researched to better understand future direction of current initiatives. Collectively this information was used to develop the electronic recording standards and additional considerations discussed in this document.

The next step for electronic real estate recording within the state is to perform pilots. The pilots will use the standards, and the standards will be updated based on the pilot experience.

The standards will need to evolve as technologies change and new technologies are introduced. As the ERER Task Force completes its charter, we recommend that an organization should be formed to take responsibility for maintaining the standards. The ERER Task Force should determine the nature of the ongoing organization.

III. ELECTRONIC RECORDING STANDARDS

13. Consider how to build a framework for sharing and communicating information that would rely on existing, recognized policies and standards for technology, metadata, or data, and that would best support and improve procedures for recording, gaining access to, searching, preserving and retrieving real estate records.

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

The majority of the electronic recording standards are encapsulated in the best practice workflow, use cases, data element list, and XML schema contained within appendix A of this document. The standards are applicable to both abstract and Torrens documents. Instances where Torrens and abstract differences occur are highlighted in the attached use cases. The standards apply to all county offices included in the recording process (Recorder, Registrar of Titles, Auditor, Assessor, Treasurer) and roles are clearly identified in the attached use cases.

A best practice workflow is a graphical depiction of a recommended business process. The standards include best practice workflows for trusted submitter qualification, document submission and document recording.

A use case is a narrative that describes a recommended business process. Two use cases are included in the standards; one for processing a satisfaction and one for processing a full closing package (deed, mortgage, assignment of mortgage and certificate of release).

A schema is a document that defines the structure and semantics underlying an XML document. Schema are included for the documents defined as in-scope. They include satisfaction, certificate of release, deed (warranty, quit claim and limited), assignment of mortgage, certificate of real estate value, and affidavit of purchaser for Torrens property. The well disclosure certificate is intended to be attached as an image to an electronic deed and does not require a schema.

A data element list is a document that defines all of the data elements that are included in the schema.

Recommended Standards:

- **Adopt the best practice workflows as Minnesota standards (Appendix B).**
- **Adopt the satisfaction and closing package use cases as Minnesota standards (Appendix D and E).**
- **Adopt the schema for satisfaction, certificate of release, deed, assignment of mortgage, certificate of real estate value, and affidavit of purchaser for Torrens property as Minnesota standards (Appendix A).**

Adopt the data element list as Minnesota standards (Appendix A).

IV. OTHER FUNCTIONAL CONSIDERATIONS AND RECOMMENDATIONS

The following are functional considerations from the 37 considerations listed in the ERERTF work plan dated January 15, 2001. The BenNevis team was asked to review these considerations and provide input and recommendations.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

A. Data Preservation

12. Consider requiring that any technology-based improvements to existing systems that it recommends provide for long-term maintenance and development of electronic real estate recording, including the migration, conversion, and preservation of data over time.

15. Consider the implications of integrating existing paper, microfilm, microfiche, and optical methods of storing real estate documents with any digital, encrypted, or other document formats that the ERER Task Force recommends, to help make access to and searches of the real estate recording system as seamless and uniform as possible.

Implementation of electronic recording should integrate with existing recorded information as seamlessly as possible. To that end, images created from XSL or XHTML documents and images submitted as part of a model 1 or model 2 implementation are expected to be archived similarly to documents recorded today. Following the same approach for making documents available for public viewing will facilitate uniformity and minimize disruption. Images created from electronic documents will reside with existing images and can be accessed in the same manner as today.

In a model 1 or model 2 implementation, the document submitter transmits an electronic image of the document to be recorded. This replaces the scanning process currently taking place within the counties. This scanned image can then be made available for public viewing in place of an image created manually at the county. As is standard practice today, a copy of this image will be stored off-site as well.

Images created from a model 3 implementation would also be archived alongside the existing documents. Processing within the county would include a step to generate an electronic image of the document based on the data elements and XSL format provided. By creating open standards, we expect to eliminate dependence on any single technology and minimize the likelihood of obsolescence.

Recommended Standards:

- **Images of recordable documents that are created or submitted as part of electronic recording should be archived with existing document images.**

B. Open standards

14. Consider developing performance standards for electronic management of real estate records that do not specify particular hardware or software applications.

The electronic real estate recording standards have been developed utilizing XML schemas and XSL. XML/XSL standards are platform neutral. The intent of using

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

XML/XSL for the electronic real estate recording standards is to allow for the broadest possible implementation. By developing open standards, any party that chooses to can participate in the electronic recording process.

Recommended Standards:

- **Parties that are transmitting/receiving real estate records in the State of Minnesota must follow the Electronic Recording Standards, which are platform neutral.**

C. Right to Privacy

17. Consider ensuring that any electronic real estate recording system that the ERER Task Force recommends accommodates citizens' statutory rights to privacy and confidentiality of sensitive data and information as well as lawful uses of the real estate record, and supports units of government that are authorized to (i) revise, supplement, or otherwise modify certificates of real estate value (CRVs) and other documents that are part of the real estate recording process, (ii) search and compile such data for purposes unrelated to real estate recording, and (iii) require an audit trail of particular real estate transactions.

The migration to electronic recording cannot compromise citizen's rights to privacy. With this in mind, certain aspects of the electronic recording must be tempered to not extend access to information inappropriately.

The certificate of real estate value (CRV) is one example of this. Currently the CRV is a multi-part form with one copy containing social security number. This copy is passed to the Department of Revenue where it is used for several purposes. One use, which requires social security number, is to confirm that an individual has not filed homestead status for more than one property. In electronic recording, data will pass from the Recorder to the Department of Revenue in lieu of a multi-part form. While the Department of Revenue continues to need social security number, this personal information cannot be disclosed in the publicly viewable version of the document. As a result, the document standard requires social security number to be encrypted and not viewable throughout the recording process until received by the Department of Revenue.

Further, to ensure that private information is appropriately protected, any application developed for electronic recording should conform to the applicable sections of the Minnesota Governmental Data Practices Act (MN Statute 13).

Recommended Standards:

- **Social Security Number data element within the certificate of real estate value must be encrypted and viewable only by the Department of Revenue. If other information is identified in the future that requires privacy, it should be processed in the same manner.**

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- **Applications developed to support electronic recording must comply with Minnesota Statutes Chapter 13.**

D. Tract Index

19. Consider whether a tract index should be mandatory in all counties, and if so, whether it should replace the grantor-grantee index as the official index.

With one exception, all Minnesota counties surveyed maintain a tract index. Roughly 25% of the counties maintain only an electronic tract index with a similar portion maintaining only a manual tract index. The balance, nearly 50%, maintain both an electronic and manual tract index.

This near universal presence of a tract index is presumably due to responsiveness to customer needs. The private entities interviewed indicated the tract index is the primary source of information. The grantor/grantee index is used much less frequently. The ERERTF Legal Subcommittee should consider these factors as it determines if tract index should become the mandatory and/or the official index.

To facilitate automated recording of documents into the tract index some additions were made to the XML document standards. The Minnesota Uniform Conveyancing Blanks were used as the baseline for the XML documents. However, on some documents data elements were added to capture the legal description of the property. A data element was added to all documents for PIN. These additional fields have been established as optional. The use of legal description and PIN vary greatly from county to county, and in many counties, vary from system to system within the county. It would be impossible for counties to comply with mandatory standards for legal description and PIN at this time. However, over time it should be possible for counties to implement standards for legal description and PIN, as systems are modified or replaced.

Recommended Standards:

- **Applications developed to support electronic recording should utilize the standards for PIN and legal description to create tract index entries, as soon as is practical.**

E. Real Estate Records

22. Consider defining the term “real estate records,” including, for example, clarifying whether probate records and judgments are included.

The initial set of electronic recording standards includes the following documents:

- Satisfaction – 51M (1 document)
- Deed (1 document to cover 3 types: warranty, quit claim, and limited warranty)
- Assignment of Mortgage – 47M (1 document)

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- Certificate of Release - 131M (1 document)
- Certificate of Real Estate Value – PE20 (1 document)
- Affidavit of Purchaser for Torrens property (1 document)
- Well Disclosure Certificate (scanned image)

Additional documents can be accommodated in future releases of the recording standards.

It is advisable for Minnesota to conform to national standards where possible. This will promote access to the broadest number of trusted submitters since Minnesota counties could easily transact with entities that have adopted national standards. This approach also takes full advantage of the broad expertise present in national organizations.

As such, the MISMO standard for e-mortgages was thoroughly analyzed for use as a Minnesota standard. The newly published e-mortgage standard appears to be in-line with the set of document standards developed for Minnesota. One difference to note however is that the e-mortgage standard has been developed in DTD format rather than schema. It is our understanding that a future release of the MISMO standard will be in schema format. Given that the e-mortgage standard supports the needs of Minnesota, it is more practical to adopt it with the DTD format, knowing that MISMO will publish a schema format over time. It is our recommendation that the e-mortgage standard should be adopted without modification.

The efforts of Legal XML and PRIJTF should also be monitored to determine the appropriate time to analyze emerging national standards for suitability and compatibility with Minnesota document standards.

Recommended Standards:

- **Adopt the schema for satisfaction, certificate of release, deed, assignment of mortgage, certificate of real estate value, and affidavit of purchaser for Torrens property as Minnesota standards (Appendix A).**
- **Adopt the DTD for MISMO e-mortgage standard as the Minnesota standard.**

F. Parcel Identification Numbers - PIN

25. Consider recommending the inclusion of parcel identification numbers (PINs), geographic information system (GIS) identifiers, or other unique labels in recordable instruments to foster cross-referencing among real estate records and other layers of public data such as city assessor's records and Minnesota Department of Revenue records.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

It is important to allow for future enhancements. To accommodate interaction with existing GIS systems and provide for additional integration in the future, the document standards are being developed with a data element to capture parcel identification number (PIN). This optional field provides counties with a link from recorded documents to a GIS system. Multiple PINs can be associated with a single document. It should be noted however that currently most counties do not capture PIN in the recording system and to do so may require procedural and system changes. Additionally, retroactive inclusion of PIN on recorded documents would be a significant undertaking and is not recommended.

Recommended Standards:

- **A data element for PIN is included in the document standards as an optional field to accommodate entry into tract index and allow for future integration with GIS and other systems. The PIN number should have the following characteristics:**
 - **It should be unique**
 - **It should not be reused**
 - **It should be retained in perpetuity**
 - **The application should support tracking a split property to the original property**
- **Counties should implement PINs on a prospective basis**

V. OTHER TECHNICAL CONSIDERATIONS AND RECOMMENDATIONS

The following are technical considerations from the 37 considerations listed in the ERERTF work plan dated January 15, 2001. The BenNevis team was asked to review these considerations and provide input and recommendations.

A. E-Signature

Capabilities for electronically signing the documents were developed following the general approach taken by MISMO. Documents can be signed using a digital signature or using one of three types of electronic signatures. Documents can be signed by multiple parties with the portion of the document being signed by each party clearly identified.

1. Digital Signatures

A digital signature is the most secure and reliable way of electronically signing a document. Digital signatures are implemented using asymmetric cryptography and are based on the Public Key Infrastructure (PKI). Digital signatures support authentication of identities, non-repudiation of transactions, and data integrity.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Each party maintains control of its own private key. Documents are signed with the private key and digital signatures can be verified using the party's public key. Public keys can be distributed freely without compromising security. In addition, public keys are bound to a digital certificate issued by a trusted Certifying Authority.

The standards use the W3C XML Signature specification for digital signatures. As of February 2002, the Director of the W3C officially endorsed the XML Signature specification as a Recommendation. The standard is stable, instructions for its use are well documented, and it is being widely adopted for use in XML transactions.

Security requirements and best practices for implementing systems using digital signatures are well documented and readily available. However, two aspects of security for digital signatures are appropriate to mention in the context of these standards.

a) Use of Public Keys

Parties should establish separate key pairs for digital signatures and encrypting data. For example, one mechanism for transferring data between parties would be to send documents over the Internet using the File Transfer Protocol (FTP). Any data sent using FTP should be encrypted to prevent unauthorized access to that data. A separate key pair should be used to perform this data encryption from the key pair used to create a digital signature for the data. Two public keys should be provided to parties receiving the data.

b) Multiple Parties Should Not Sign the Same Data

Digital signatures are more prone to attacks if multiple parties sign the same data using different keys. As a result, care should be taken to ensure that no two parties are signing the exact same portions of any given document. In practice this should be easy to implement, as it is common practice for each party to add some content to the document that they will sign.

2. Electronic Signatures

An electronic signature provides a degree of identity authentication but it does not provide non-repudiation of transactions nor does it support data integrity. However, it is recognized that not all parties participating in the real estate transactions will have digital signatures.

Electronic signatures can provide an adequate level of transactional integrity when used in conjunction with digital signatures. For example, a notary with a digital signature could digitally sign an electronic signature created by another party. Alternatively, electronic signatures may be adequate when they are captured as part of a process where documents are system-generated and the process itself has been certified.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

The standards allow for three types of electronic signatures. *Signature Images* are digitized images of an individual's signature. *Text Signatures* consist of text captured by an application. For example, a user might sign a document by typing their name into a text field, which is captured by an application. The captured text is then considered to be the signature. *Signature Objects* are external data objects considered to be forms of electronic signature. For example, biometric devices might be used to capture a handwritten signature that in addition to capturing an image of the signature also validates the identity of the user by checking the manner in which the signature is created.

Like digital signatures, electronic signatures have Reference elements to indicate what data objects are being signed. A Reference element for an Electronic Signature can be a Simple Reference, consisting of a Uniform Resource Identifier (URI), or it can be a Qualified Reference. A Qualified Reference utilizes the Reference element from the W3C XML Signature specification. In addition to indicating the URI of the data being signed, the Qualified Reference provides capabilities for creating digest values and specifying any transformations applied to the data being signed. These digest values might then be digitally signed by a notary or they may be useful in cases where there is a certified process for system-generated documents. In practice, this may or may not prove to be valuable. It's possible that the standards could be simplified to limit References for Electronic Signatures to Simple Reference types after feedback has been gathered from a pilot implementation.

Recommended Standards:

- **Parties should establish separate key pairs for digital signatures and encrypting data.**
- **Multiple parties should not sign the same data.**

B. Target Namespace

XML Schema supports the use of namespaces. A namespace provides a way to uniquely identify a group of elements and attributes. For example, an XML document might need to refer to the title of a document as an element and include an HTML title element. Namespaces provide a way to distinguish between these two elements even though they share the same name.

Namespaces are defined as URLs. This can be confusing because namespaces are symbolic and are not required to resolve to an actual Web address. URLs were chosen for namespace names because they are unique and because they contain domain names that can work on the Internet.

The standards were created with a target namespace of <http://www.erertf.org/0.1/schema>. The namespace for the standards can be easily modified at a later date once the namespace is finalized.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Recommended Standards:

- **The target namespace for standards should be**
<http://www.erertf.org/0.1/schema>

VI. OTHER PROCESS CONSIDERATIONS AND RECOMMENDATIONS

The following are process considerations from the 37 considerations listed in the ERERTF work plan dated January 15, 2001. The BenNevis team was asked to review these considerations and provide input and recommendations.

A. Maintenance of Standards

26. Consider identifying the entity(ies) that will be responsible for developing and updating standards for the content and format of electronic real estate records.

Electronic real estate recording standards should be considered a living collection of documents. It is common practice to support on-going revisions to the standards by establishing a standards maintenance body. Typically this governing body is composed of volunteers from various organizations with a material interest in the standards. In the case of the ERER Task Force effort, it would be advisable to retain a subset of the Task Force as the initial standards maintenance board.

This group would be chartered with monitoring the activities of related organizations (MISMO, PRIJTF, Legal XML) and initiating updates to the ERER standards as appropriate. Attention must also be paid to the industry in general (i.e., vendors and out-of-state counties) to sense overall progress. This group would also need to monitor statute changes to ensure that the electronic standards comply with the latest legislation. New electronic document standards will also need to be reviewed to determine what information should be encrypted or secured to maintain citizens' right to privacy.

The governing body should focus primarily on those standards specifically developed for the state of Minnesota. The governing body should also critically assess any additional standards that MISMO, PRIJTF, or Legal XML produce for compatibility with Minnesota standards.

Recommended Standards:

- **Retain a subset of the ERER Task Force to serve as the initial standards maintenance board.**

B. Procedures and policies

11. Consider emphasizing the overriding importance of identifying features that will both (i) facilitate or enhance county recorders' numbering, indexing,

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

recording, payment, verification of receipt, certification, return of documents, and on- and off-site customer access services, and (ii) foster procedures and policies that promote uniform, secure, accessible, and user-friendly electronic creation, transmission, recording, storage, retrieval, and preservation of, as well as payment for, real estate documents.

Two primary scenarios are considered in this phase of electronic recording of documents. The first involves generation of satisfactions or certificates of release. In this case it is expected that electronic documents could be generated manually via data entry to an electronic form, or systematically via automated generation from the mortgage company/title company system. In the case of manual generation of documents, a digital signature would be required of a company officer and a notary. However, in the case of a system-generated document, counties and trusted submitters should consider certifying the process rather than each individual transaction. Similarly, a trusted submitter may choose to combine multiple properties and mortgagors in a single satisfaction filing.

The other scenario involves a package of documents required at closing. The set of documents considered includes deed, mortgage, assignment of mortgage, satisfaction (or certificate of release), certificate of real estate value, and well disclosure certificate. For Torrens property, an affidavit of purchaser would also be included. In each instance where an individual signs a document it is expected that this is a digitized signature. Each document would then be “wrapped” with a digital signature. *Please note, the difference between a digital and digitized signature is explained in the technical considerations section of this document.*

1. Workflow:

A best practice workflow has been drafted as part of this project (Appendix B). The workflow contains four components: trusted submitter qualification, document submission, document validation, and document recording.

a) Trusted submitter qualification

During trusted submitter qualification, a potential submitter is identified and evaluated based on criteria such as transaction volume, systems capabilities, and security standards. Also during this process payment mechanisms are established and contractual agreements related to electronic signatures and payment are executed. The final component of this stage is to test submission and receipt of documents between the county and trusted submitter.

b) Document submission

Document submission includes the process required to get a document from the originator to the county processing queue. During this process documents are scanned for viruses, document integrity is confirmed, and basic validation checks are completed. This component of the document flow could be accomplished at the county or by a third party.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

c) **Document validation**

Document validation occurs at the receiving county. In this process the document enters the county processing queue and is evaluated relative to county-specific processing rules. County specific processing rules will need to be defined in greater detail by the counties during implementation. These specific processing rules include items such as Auditor validation, confirmation of current taxes, and other variations of the high-level workflow presented here.

Deed and mortgage registration taxes as well as recording and other fees are calculated. The total amount due for fees and taxes is collected from the trusted submitter in the manner agreed to initially. Any application built to support electronic recording should also include a mechanism to notify trusted submitters when escrow balances are low. Applications must also handle transaction sets (e.g., closing packages) and provide functionality to reject all documents in a package if one document is rejected.

d) **Document recording**

The final step in the process is document recording. A time stamp, document number, and the county's digital signature are applied to the document. Appropriate information is collected from the document and applied to both the tract and grantor/grantee indexes. A document image is then generated and archived. The document, receipt information, and recording confirmation are then sent back to the document submitter. Data, document copies, and funds are then transferred to other government entities (both inside and outside the county). Finally, indexing information and the document image are made available to the public and the recording process is complete.

Recommended Standards:

- **The best practice workflow should be used as a starting point for counties as they refine their document recording process (Appendix B).**

2. **Use Cases:**

In addition to the best practice workflow, counties can utilize the use cases included in the standards to develop or supplement policy and procedure manuals (Appendix C and D). The functional requirements included in the use cases tie to statutes where appropriate. The functional requirements can in turn then be tied to county processing manuals. Any legislation-driven changes to standards should then be reflected in revised policy manuals.

Recommended Standards:

- **Adopt the satisfaction and closing package use cases as Minnesota standards (Appendix C and D).**

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

3. **Payment method:**

Counties should consider use of escrow accounts for collection of fees and taxes. Utilizing an escrow account facilitates immediate validation of funds availability and eliminates any delay in receipt. Because of the relative simplicity and low cost, our recommendation is to implement escrow accounts. Some alternative payment methods include credit cards, direct debit of accounts and electronic funds transfer.

Recommended Standards:

- **Implement escrow accounts with trusted submitters for payment of taxes and fees.**
- **Investigate alternative payment options as part of the pilot process or prior to standards implementation.**

4. **Storage and retrieval:**

In the above process definition an image is created based on the XSL or XHTML contained within the electronic document. This image becomes the document of record. The electronic transaction to create the image need not be retained by the county. As a result, the image generated can be stored and retrieved in a manner consistent with existing document images. No change to storage or retrieval is required.

Recommended Standards:

- **Images created or submitted as part of electronic recording should be archived with existing document images.**

C. Ancillary Functions and Documents

16. Consider the many ancillary functions that are part of the real estate recording process, including for example (i) collection of deed and mortgage registry taxes; recording, well and conservation fees; special assessments and past-due real estate taxes; and Green Acres amounts, (ii) disclosure of information regarding wells and waste disposal systems, (iii) subdivision of land and lot-splitting, (iv) filing of Affidavits of Purchaser and Examiner's Directives in the Torrens system, and (v) with respect to real estate conveyances, verification of the tax parcel number; determination of the assessed value of the real estate; and disclosure of the name and address of the new taxpayer.

Numerous ancillary functions and documents are necessary for the recording of real estate documents. As mentioned above, it is our recommendation that counties establish escrow accounts with trusted submitters for payment of deed tax, mortgage registration tax, recording fees, and other fees. During the document validation component of the workflow, a withdrawal can be made from

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

the escrow account for the amount of the taxes and fees for an individual electronic document. The mechanics behind calculating the taxes and fees and executing the withdrawal will need to be defined and implemented at a county-level to accommodate the business rules unique to each county. Along with this, distribution of fees and documents to other entities will need to be developed as part of the county-specific workflow process.

Recommended Standards:

- **Implement escrow accounts with trusted submitters for payment of taxes and fees.**
- **Investigate alternative payment options as part of the pilot process or prior to standards implementation.**

Three ancillary documents are included in the electronic recording standards. The well disclosure certificate, certificate of real estate value, and affidavit of purchaser for Torrens property are all required for a standard closing package (Appendix A).

Split processing and verification of tax parcel number was considered out of scope. Initial implementations should focus on basic real estate transactions. Integration with tax, GIS, and Assessor systems will need to occur as part of the implementation of electronic recording at an individual county level. This step has been identified within the best practice workflow during the document recording phase.

An initial validation will need to occur to confirm that the property being recorded is not a division or split. This could be done with an electronic validation of legal description, combined with a manual review for non-matches. The actual implementation of this validation will vary from county to county, depending on the capabilities of the county systems.

Recommended Standards:

- **Implement a process for identifying divisions or splits and removing them from the electronic recording process, so that they can be manually recorded.**

VII. GRANTOR/GRANTEE INDEXING STANDARDS

The Property Records Industry Joint Task Force (PRIJTF) has invested a significant amount of effort into developing grantor/grantee indexing standards through the work of Carl R. Ernst. Draft 3 of *Indexing of Grantor/Grantee Names by Land Recording Offices* (see <http://www.prijtf.org/Papers/indexingreport/indexingreportdraft3.PDF>) discusses numerous items to consider in a modern grantor/grantee indexing process. It also outlines a set of model name rules that have been tested via an actual index

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

conversion effort. The considerations and recommendations presented here build on several topics included in Mr. Ernst's work.

A. Creation and revision of uniform grantor/grantee indexing standards

20. Consider recommending the creation, evaluation, and revision of uniform indexing standards to facilitate computerized searches, for example, by clarifying whether "John Smith Truck Co." will be indexed as Smith, John, Truck Co. or as John Smith Truck Co., and whether a name that starts with "Saint" be indexed as Saint, St., or St.

Grantor/Grantee indexing standards are essential for implementation of electronic recording. Business rules and standards need to be codified as part of the automation activities. Unless indexing norms are defined, human intervention and judgment will always be required to record even the simplest document. Grantor/Grantee indexing standards must be implemented before electronic recording of documents can be fully automated.

The approach outlined in the PRIJTF document (see <http://www.prijtf.org/Papers/indexingreport/indexingreportdraft3.PDF>) is founded on practical experience. It is our recommendation that these guidelines should serve as the starting point for implementation of grantor/grantee indexing standards. Items such as name sequence and concatenation, abbreviations, and special characters are addressed in the indexing guidelines. These items are discussed in greater detail later in this document.

Creation of uniform, statewide standards deserves consideration. Incremental benefits of statewide standards to individual counties may be limited. However, counties could share best practices and benefit from a collective approach. Benefits to the private sector could be significant. Consistency between counties would allow trusted submitters to more easily access a broader number of counties (and higher transaction volume) which would increase the productivity gains realized through automation. There is enough potential benefit that we recommend creation and adoption of statewide standards. Uniform grantor/grantee indexing standards in conjunction with statewide document standards would allow trusted submitters to transact with any county in Minnesota in a consistent manner.

Continuous uniformity in grantor/grantee indexing standards would require oversight by a governing organization. This overhead would need to be considered as a cost of maintaining uniform standards. Another challenge is gaining consensus on indexing norms across 87 counties. On-going evaluation and revision of the indexing standards would be required. A similar governing body would need to be in place for the document standards being developed for

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

the ERER Task Force. Should statewide standards be adopted, it is our recommendation that maintenance of the uniform grantor/grantee indexing standards also reside with the document maintenance organization.

Recommended Standards:

- **Adopt the PRIJTF grantor/grantee indexing guidelines as a statewide standard, prior to pilot testing.**
- **Maintain the grantor/grantee indexing standards through the same maintenance organization responsible for Minnesota document standards.**

B. Mandatory use of uniform grantor/grantee indexing standards

21. Consider whether use of any uniform indexing standards should be mandatory; whether such use should be prospective only; and if indexing standards are to be used retrospectively as well as prospectively, how far back in time existing indexes should be amended.

As automation of the recording process takes place, programmatic normalization of index entries can occur. This normalization will transform the standardized data elements of an electronic document into consistent index entries. The standard document components can be ordered and grouped according to the individual county needs. This ability to adapt the standard data into a county-specific format supports an argument against mandatory use of uniform indexing standards.

However, consistency between counties could become increasingly important over time. As more of the recording process is automated, additional index information generated by the recording systems may be utilized. Consistency in output would simplify future standardization and provide significant benefit to the trusted submitters of the counties. Therefore, following the premise that statewide consistency provides maximum benefits, it is our recommendation that as counties adopt the electronic recording standards they are required to adopt the uniform grantor/grantee indexing standards as well.

1. **Conversion of legacy information:**

Ideally all grantor/grantee index information would conform to the same indexing standards. However, ensuring consistency would require review and modification of existing index entries. While some of the conversion of legacy information could be automated, manual review and modification of information would be required. Such an undertaking would be a significant time commitment for most county offices. Given the current workload witnessed in the Recorder's offices, it would not be appropriate to require conversion of legacy information at this time.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Our recommendation is to implement new grantor/grantee indexing standards prospectively as part of the electronic recording implementation effort. As efficiency is realized via implementation of electronic recording, more time to accommodate activities such as retroactive indexing will become available. Counties should consider the benefits of converting legacy information as staff workload returns to a level to allow for this activity.

2. **Programmatic normalization of index entries:**

The recording system should be utilized to ensure consistency in grantor/grantee index entries. Consistency in case, punctuation, and order can be maintained by rules contained within the recording system. The same logic used to create the index entry can be used to generate a search request. As a result the normalized indexing and search routines will provide more accurate and complete search results. Specific items to consider in normalization include:

a) **Name sequence and concatenation:**

PRIJTF recommends entering all forms of multiple name surnames in the index. Using this approach, surnames would be concatenated for consistency. The example presented is John de la Hoja. This name would be indexed multiple ways (HOJA JOHN DE LA, LAHOJA JOHN DE, DELAHOJA JOHN).

b) **Abbreviation standards:**

PRIJTF recommends a “reversal test” to determine if an abbreviation is acceptable. The concept is simple but very effective (can the abbreviation be reversed to its original word without confusion?). Ernst provides examples of good and bad abbreviations in the PRIJTF document.

c) **Special characters:**

Different character sets are recommended for human and non-human names. PRIJTF recommends the capitalized letters of the alphabet plus additional special characters. For human names, apostrophes and hyphens are the only allowed special characters. For non-human names the list of accepted special characters is longer and is captured in section 10 of the document.

d) **Human vs. non-human names:**

Indexing standards will differ for human and non-human names. The document standards being developed as part of this project recognize this and allow for separate data elements for each type of

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

name. As a result, different normalization rules can be applied to human names and non-human names. These normalization rules are discussed in sections 9 through 12 and a recommended approach is captured in appendices 11 and 12 of the PRIJTF document.

e) **Keying process:**

Section 5 of the PRIJTF document discusses rules for the keying of data. Many of the rules necessary to ensure consistency in index information can be built into the recording system. This reduces the number of manual decision points for those documents not received electronically. For electronic recording, these same decision points must be pushed upstream to the document originator. Additional rules can be built into the document originator's systems to improve acceptance rate. Training of the document preparers will also be required to ensure the manual decision points are understood and consistently addressed.

Adoption of the document standards will further reduce the number of decision points. Utilizing one field for each name segment eliminates the possibility of having different spelling of the same name in different sections of the document. Similarly, a distinction is made within the document as to whether the name is for a human or non-human, which allows for different normalization rules to be applied.

Recommended Standards:

- **Require adoption of uniform grantor/grantee indexing standards as counties move to electronic recording.**
- **Implement uniform grantor/grantee indexing standards prospectively only.**

VIII. RECOMMENDATIONS FOR THE PILOT PHASE

18. Consider requiring that any enhancements or changes to existing applications that the ERER Task Force recommends be designed to be developed in phases and adaptable to various systems.

The next step in achieving electronic recording in Minnesota is to perform pilot implementations. Counties, private sector organizations and vendors will need to

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

be selected/recruited to perform the pilots. A list of possible vendor evaluation criteria has been included in Appendix E.

The ultimate selection of models to implement in the pilots will need to be made based on the pros and cons for each model and the capabilities and resources of the counties, private sector organizations and vendors involved. Pros and cons for each model have been included in the cost benefit analysis. The greatest benefits to counties and private sector organizations are achieved with model 3. Model 3 requires significant systems enhancements in order to be fully effective. The effort to perform these enhancements will need to be considered by the parties involved as part of the process of defining the pilots. One alternative that could be considered would be to pilot a non-integrated model 3 for one of the pilots. Under this approach, the county would not integrate automated posting to the indexing system. Rather, the county would electronically receive the document, print it and process it normally. This is an approach that smaller counties are likely to implement to accommodate electronic recording. A model 1 approach could also be considered for this process.

Another consideration that will need to be reviewed with the parties involved is the use of XSL or XHTML. The standards have been drafted with XSL, but there may be some vendors or private organizations that have systems using the older XHTML technology, that would find it difficult to convert to XSL for a pilot.

The out-of-state counties interviewed that implemented a model 2 or model 3 solution unanimously recommended starting with a high-volume, simple document. The successful implementations started with their state's equivalent of a satisfaction or certificate of release. This approach should be considered for the pilots. A model 3 implementation would need to include a trusted submitter with adequate volume to justify the effort. In this case a national or regional bank should be considered for satisfactions and a large title company should be considered for certificates of release.

There are several factors that could complicate the pilot effort in Minnesota. Many of these issues have not been addressed in efforts in other states.

- Tract index: Virtually all counties within Minnesota record documents in both a grantor/grantee and tract index. Many out-of-state counties record only in a grantor/grantee index. Experience from other implementations is limited. Gathering adequate information to automatically record documents in the tract index will require that the county systems have the capability of automatically finding a legal description based on the document number.
- Torrens: Most counties in states outside of the Midwest are composed solely of abstract property. Only one out-of-state county interviewed indicated a presence of Torrens property. As a

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

result, experience from other implementations is limited. Initial pilot efforts may be best served by focusing exclusively on abstract property. The additional processing required to create memorials and generate new certificates of title should be held for a future phase.

The net impact of these complicating factors is that, depending on the approach taken, it may take additional time to complete a pilot effort in Minnesota. The additional challenges these factors present need to be considered when deriving the timeline and work plan for pilot activities.

IX. FUTURE CONSIDERATION

An implementation approach that should be considered in the future (ie, after the pilots), is using a central switch for document transmission. This switch could be used by all the counties who want the advantages of a switch, while allowing counties who prefer to transmit directly to do so. The following describes a central switch implementation.

In the current paper-based recording process documents are typically transported from the submitter to the county by a third party. Generally this third party is the US Postal Service or a delivery service. In either case, the submitter follows established procedures (e.g., addressing) as it provides documents to the third party for delivery. The third party is then responsible for transporting the documents to the intended county. The county receives the documents at a single point and processing begins.

In this scenario the submitter does not need to know where the county mailroom is or even where the county office is located. Similarly, the county does not need to know what process the submitter used to generate and mail the documents. At the simplest level, this process involves two parties exchanging documents in an agreed upon manner. This allows exchange of documents in a standard manner without intricate knowledge of, or exclusive relationships with, the other party.

The post office analogy can be carried over to the electronic world. One approach to simplify submission of electronic documents and promote consistency in process is to establish a central switch for electronic transactions. In this scenario a third party would establish a central point for collection and distribution of electronic documents. This would allow submitters to transport electronic documents to any participating county by utilizing a single mechanism. The counties would also be able to receive electronic documents from a broader number of trusted submitters without establishing unique conduits to each.

A “county pull” approach could be utilized in which submitting companies deposit documents into the central switch and counties are responsible for monitoring the submissions and processing documents as part of their work

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

queue. Counties could choose to automate the gathering of documents or treat this similar to a courier or mail drop. A phased implementation approach should be considered. Similar to a pilot effort, a small number of counties should participate in the early implementation of a central switch. Once full functionality is established additional counties should be brought on line.

A central switch approach offers a number of benefits when compared to a county direct approach:

- The central switch could perform standard validation of documents prior to sending them on to the counties. This could significantly reduce the document rejection rates at the counties, thus reducing workloads. It will also assure that the standards are uniformly enforced. The central switch approach could be of particular benefit to the midsize and smaller counties that are likely to begin participation by simply downloading and printing electronic documents.
- Rather than having each county deal with multiple private companies, each county will only have to work with the central switch to establish electronic processing.
- Rather than having to deal with 87 counties and multiple options for communicating electronic documents, the private companies will only have to work with the central switch to establish electronic processing. However, the central switch is simply a conduit between the trusted submitter and the county. Contractual relationships are between the county and trusted submitter.

The central switch concept should be considered after initial pilots are complete. Costs and benefits of this approach should be assessed as well.

APPENDIX A - SCHEMA AND DATA ELEMENT LIST

The schema and data element list are available in XML Spy and Microsoft Word format at the Task Force website or on CD by contacting the State Project Coordinator, or can be accessed below by clicking on the hyperlink.

1. View Element

A View Element has been created in each of the schemas to facilitate the creation of a printable version of the document. The View Element is defined as an occurrence of the “anyComplexType” XML Schema datatype. This datatype allows for the inclusion of an embedded XSL Stylesheet or XHTML element that defines the view.

XSL – XSL or The Extensible Stylesheet Language is a language for the creation of stylesheets. An XSL stylesheet is a document that contains instructions on how to display the data in an XML document. XSL stylesheets work in conjunction with XSL Transformations (XSLT). XSLT can be used to render the data in an XML document into an HTML form viewable on any web browser. XSLT accomplishes this transformation using the formatting instructions contained within the XSL stylesheet.

One advantage of using XSL for transforming XML data into HTML is that it supports the clear separation of data and instructions for the presentation of that data. XSL uses XPath to access data within an XML document. This is significant because it ensures that the data presented in the view is exactly the same as the data within the data portion of the document.

A view created using XHTML may require the duplication of data within the view section that exists within the data section of the document. Applications written to support these types of documents would have the additional requirement of ensuring the data in the view section is an exact match of the data in the data section of the document. Another advantage of XSL is that the view does not have to be defined within every XML document. XSL stylesheets can be stored once and referenced from within multiple XML documents. For example, a specific entity might have one stylesheet for the creation of views for Satisfaction documents. This stylesheet could be kept on file at each of the counties. When Satisfaction documents are sent to the counties, the stylesheet would be referenced inside the Satisfaction document.

2. List of Schema

To view the schema (*.xsd, *.xml and *.xslt files) using XMLSPY: go to www.xmlspy.com and download the 30 day demo version. All you need is an email address where your userID and password will be sent to. Once you download XMLSPY, you can then use it to view the schemas and XML files.

XML Files: (*.xml)

The following files are examples of data embedded in the datatags identified in the schema. The files can be viewed using XMLSPY or Word.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

[AffidavitOfPurchaser.xml](#)
[AssignmentOfMortgage.xml](#)
[CertificateOfRelease.xml](#)
[Satisfaction.xml](#)
[WarrantyDeed.xml](#)
[SatisfactionForSampleDocXML.doc](#)

Schema files: (*.xsd)

These files can be viewed using XMLSPY or Word. Word will give a text view where XMLSPY gives a graphic and text view.

All schema files beginning with dt*.xsd represent the datatypes used for attributes.

[dtAcreageNumber.xsd](#)
[dtAdjustmentCode.xsd](#)
[dtCapacity.xsd](#)
[dtCERNumber.xsd](#)
[dtCommunicationMethod.xsd](#)
[dtContactMethod.xsd](#)
[dtCOorT.xsd](#)
[dtCountryCode.xsd](#)
[dtCountryRegionCode.xsd](#)
[dtCountyRejectCode.xsd](#)
[dtCRFRejectReasons.xsd](#)
[dtCRPRIM.xsd](#)
[dtCRVComment.xsd](#)
[dtCRVStatus.xsd](#)
[dtDocumentCode.xsd](#)
[dtDocumentTitle.xsd](#)
[dtFeeCode.xsd](#)
[dtFeePaymentType.xsd](#)
[dtFeeStatus.xsd](#)
[dtGreenAcresCode.xsd](#)
[dtImage.xsd](#)
[dtLeaveBlankCode.xsd](#)
[dtMaritalStatus.xsd](#)
[dtMethodOfFinancing.xsd](#)
[dtMoney.xsd](#)
[dtNeedToInvestigate.xsd](#)
[dtOtherNameType.xsd](#)
[dtPersonnelRole.xsd](#)
[dtPlannedUseOfProperty.xsd](#)

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

[dtPropertyCode.xsd](#)
[dtPropertyTypeCode.xsd](#)
[dtRecordingCountyCode.xsd](#)
[dtRecordingCountyID.xsd](#)
[dtRecordingStateCode.xsd](#)
[dtReferenceNumberType.xsd](#)
[dtRegulatoryCategory.xsd](#)
[dtRelatedIndividualRole.xsd](#)
[dtRelatedOrganizationRole.xsd](#)
[dtRelationshipStatus.xsd](#)
[dtRepresentativeRole.xsd](#)
[dtSchoolDistrictCode.xsd](#)
[dtSSN.xsd](#)
[dtStateCode.xsd](#)
[dtTransactionCode.xsd](#)
[dtTypeOfAcquisition.xsd](#)
[dtTypeOfPropertyTransferred.xsd](#)
[dtUnitNumber.xsd](#)
[dtUpdateCode.xsd](#)
[dtUseCode.xsd](#)
[dtWellStatus.xsd](#)

All schema files beginning with ag*.xsd represent the attribute groups.

[agCapacityStatus.xsd](#)
[agMarketValue.xsd](#)

All schema files beginning with a lowercase letter represent the subset of schemas used for the document schemas.

[address.xsd](#)
[contact.xsd](#)
[coreInformation.xsd](#)
[correspondenceInformation.xsd](#)
[countyInformation.xsd](#)
[deedBodyInformation.xsd](#)
[documentOutline.xsd](#)
[fees.xsd](#)
[header.xsd](#)
[individual.xsd](#)
[legalDescription.xsd](#)
[notary.xsd](#)
[organization.xsd](#)
[personalProperty.xsd](#)

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

[personnel.xsd](#)
[property.xsd](#)
[recordedDocumentDateTime.xsd](#)
[recordedDocumentInformation.xsd](#)
[referencedDocumentInformation.xsd](#)
[referenceNumberInformation.xsd](#)
[regulatory.xsd](#)
[returnToInformation.xsd](#)
[signature.xsd](#)

All schema files beginning with an uppercase letter represent the document schemas.

[AffidavitOfPurchaser.xsd](#)
[AssignmentOfMortgage.xsd](#)
[CertificateOfRelease.xsd](#)
[CRV.xsd](#)
[Deed.xsd](#)
[Satisfaction.xsd](#)

To view the generated documents of the schemas click on the following documents:

[AffidavitOfPurchaserXSD.xsd](#)
[AssignmentOfMortgageXSD.xsd](#)
[CertificateOfReleaseXSD.xsd](#)
[CRVXSD.xsd](#)
[DeedXSD.xsd](#)
[SatisfactionXSD.xsd](#)

The following files give a graphic view of the schemas without using XMLSPY. Any element that is defined in another schema, has not be expanded in the current file. You will have to click on the appropriate file to see that schema. (For instance, the file coreInformation.png has a Header element with a type of headerType. You would have to go to the header.png file to see the graphic view of the headerType.)

[address.png](#)
[coreInformation.png](#)
[correspondenceInformation.png](#)
[countyInformation.png](#)
[deedBodyInformation.png](#)
[documentOutline.png](#)
[endorsingOrganization.png](#)
[fees.png](#)
[header.png](#)
[individual.png](#)

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

[individualCommunication.png](#)
[individualContact.png](#)
[legalDescription.png](#)
[mortgageReferenceDocument.png](#)
[notary.png](#)
[organization.png](#)
[organizationContact.png](#)
[personalProperty.png](#)
[personnel.png](#)
[property.png](#)
[recordedDocumentDateTime.png](#)
[recordedDocumentInformation.png](#)
[referenceDocumentInformation.png](#)
[referenceNumberInformation.png](#)
[regulatory.png](#)
[returnToInformation.png](#)
[signature.png](#)

[AffidavitOfPurchaser.png](#)
[AssignmentOfMortgage.png](#)
[CertificateOfRelease.png](#)
[CRV.png](#)
[Deed.png](#)
[Satisfaction.png](#)

JPEG Files:

All JPEG files represent the bitmaps used in the Satisfaction sample document for the signatures.

[Carmen.jpg](#)
[CountyRecorder.jpg](#)
[DeannaBurns.jpg](#)
[JHodgson.jpg](#)

To see the Satisfaction Sample document:

Open the [SatisfactionForSampleDoc.xml](#) file

To see the Satisfaction Sample document transformed using XMLSPY:

Open XMLSPY.

Open the SatisfactionForSampleDoc.xml file.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Make sure the [SatisfactionForSampleDoc.xslt](#) assigned to it is in the indicated directory path.

Execute XSL Transformation by clicking on the option under the XSL menu

3. Data Element List

[DataElementList.doc](#)

This was created using [DataElementList.xsd](#)

Items A through F describe the process followed to create the standards, provide additional definition to the standards, and/or provide additional guidance for implementing the standards.

4. Other Information Related to the Schemas and Data Elements

A. Electronic Standards Creation Process

The best practice workflows and use cases were drafted first and capture the functional requirements, process flow and decision points for document recording. Actors (participants in the recording process) are also identified and their respective roles in the processing of documents are captured in the use case. County Recorder staff was consulted on accuracy and completeness of the use cases.

XML schema were then developed based on the use cases and sample documents collected during the on-site interviews. Sections of the schema were separated into reusable components that are common among all schema drafted for this effort. Iterations of review with county Recorder staff were again completed to further refine the schema.

A data element list was created concurrent to the development of the XML schema. This list captures and further defines all data elements included in the schema.

Additional comments on the document standards follow:

B. Sample Document

The sample XSL document created during this project serves as an example of how trusted submitters could construct the electronic documents. It is important to note that each trusted submitter will need to develop an XSL document to fit their specific needs that conforms with the schema developed as part of this effort. XSL documents developed by trusted submitters must still conform to Minnesota statute 507.093, which defines document standards.

C. Uniform Conveyancing Blanks

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

The Minnesota Uniform Conveyancing Blanks were used as the baseline for the XML document standards. With the exception of optional data elements for legal description and PIN, the blanks were mimicked for electronic recording. This approach was adopted to minimize the focus on format and place primary emphasis on the migration to electronic standards.

D. Well Disclosure Certificate

Currently a sketch map must be included on the well disclosure certificate to indicate the location of the well. The sketch is typically hand-drawn. This process is expected to continue. The sketch map will need to be included within the electronic document as an image. Simple scanning technology will be able to accommodate this requirement. Since the hand-drawn map needs to be scanned, and the data on the well certificate is used to determine recordability, but is not recorded, the entire well certificate will be scanned and included with the deed. Additional detail on the format of the image is available within the deed schema.

E. Request and Response

Communication back to the document submitter is an integral component of the electronic recording process. Three types of transmittals are anticipated:

1. Rejection:

A document can be rejected at any point prior to or during the recording process. Some reasons for rejection include, validation rules not met, document integrity compromised, digital signature not valid, and insufficient funds.

2. Submission complete:

Transmission of the electronic document from the submitter to the appropriate county is complete. The document is now in the processing queue.

3. Recording complete:

The document has passed all processing rules and has been recorded. Date/time stamp, document number, and Recorder's signature have been applied to the document and all indexing is complete. Information on taxes and fees paid will also be contained within this confirmation.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Recommended fields to be included in the transmittals are:

Field	Rejection	Submission	Recording
Date & time of transmittal	X	X	X
Processing county	X	X	X
Document tracking number	X	X	X
Reason for rejection	X		
Document number			X
Recorders signature			X
Recording date & time			X

Many options are available to facilitate communication between the county and trusted submitter. For example, MISMO has defined a generic request and response enveloping protocol. Simple Object Access Protocol (SOAP) is another leading option. The appropriate communication method will vary depending on the systems involved and the model implemented. Each implementation of electronic recording will need to assess the best communication mechanism for the given environment.

F. Data and Records Management Architecture

There are several existing principles captured in the Minnesota Data and Records Management Architecture that the real estate standards and recording/transport applications must comply with. *Note – the Data and Records Management Architecture document can be found at <http://www.ot.state.mn.us/architecture/html/DataRec.htm>. Links to other documents mentioned in this section are contained within the Data and Records Management Architecture document.*

1. Cross-platform data encoding and formatting:

This principle sets parameters for standards development. The real estate standards have been developed in XML which is the recommended technology.

2. Character encoding:

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

This principle sets parameters for character sets to be used. XML by definition places constraints on allowable characters, thus the standards comply with this principle.

3. Images: long-term value:

This principle sets mandatory imaging system standards for permanent records. Any application developed or enhanced to support electronic recording should comply with Information Resource Management (IRM) standard 12.

4. Metadata – data elements & Data element naming:

These principles outline naming conventions for data elements. Since the ISO/IEC documents referred to in the “Metadata – data elements” principle are a work-in-process, the references in the “Data element naming” principle will be used. IRM guidelines 9-1 and 10-1 were used as a guide for naming the data elements within the real estate standards. Any application developed to support electronic recording should also comply with these naming guidelines.

5. Metadata – Recordkeeping:

The Minnesota Recordkeeping Metadata standard is an emerging work. This standard defines 20 data elements (10 mandatory) which are intended to improve records management. The data elements integrate the Dublin Core elements and the Minnesota Geographic metadata guidelines. Implementation of the Recordkeeping Metadata is appropriate for documents that will be passed from the recording process to other entities (e.g., the certificate of real estate value which is passed to the Department of Revenue).

6. Data Coding:

Federal Information Processing Standards (FIPS) Publication 5-2 sets two digit code standards for the 50 states, District of Columbia, and outlying areas. Information Resource Management (IRM) standard 15-1 establishes three digit codes for all Minnesota counties. Applications developed to support electronic recording should comply with these codes.

7. Records management strategies:

The Trustworthy Information Systems Handbook and Electronic Records Management Guidelines provide guidance on application development. Both guides should be utilized when developing an application or transport mechanism to support electronic recording.

Recommended Standards:

Applications developed to support electronic recording must comply with IRM standard 12 for imaging.

Applications developed to support electronic recording must comply with IRM standards 9-1 and 10-1 for data naming conventions.

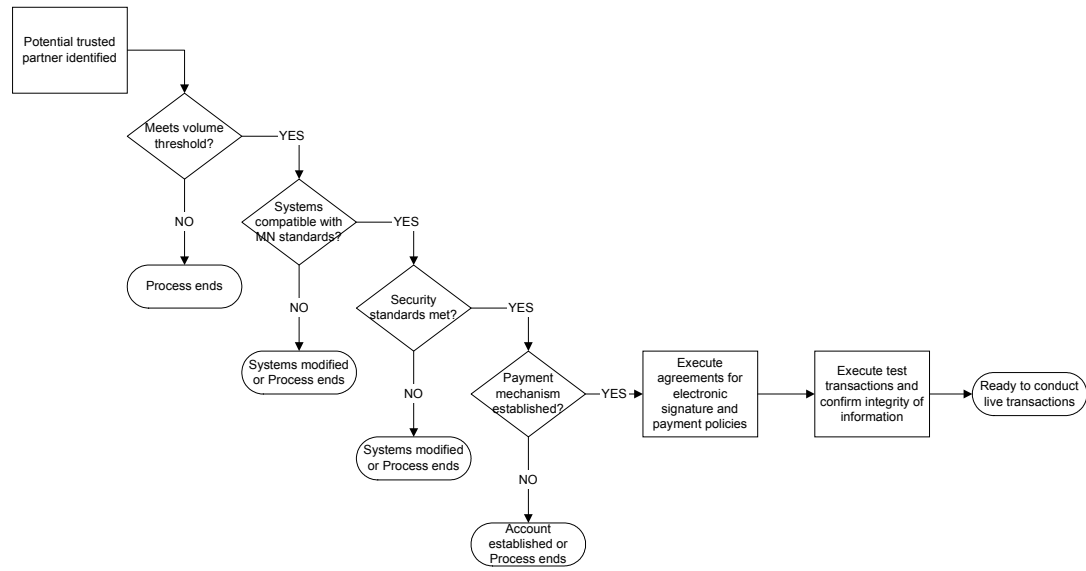
Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Applications developed to support electronic recording must comply with FIPS 5-2 and IRM 15-1 for state and county codes.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

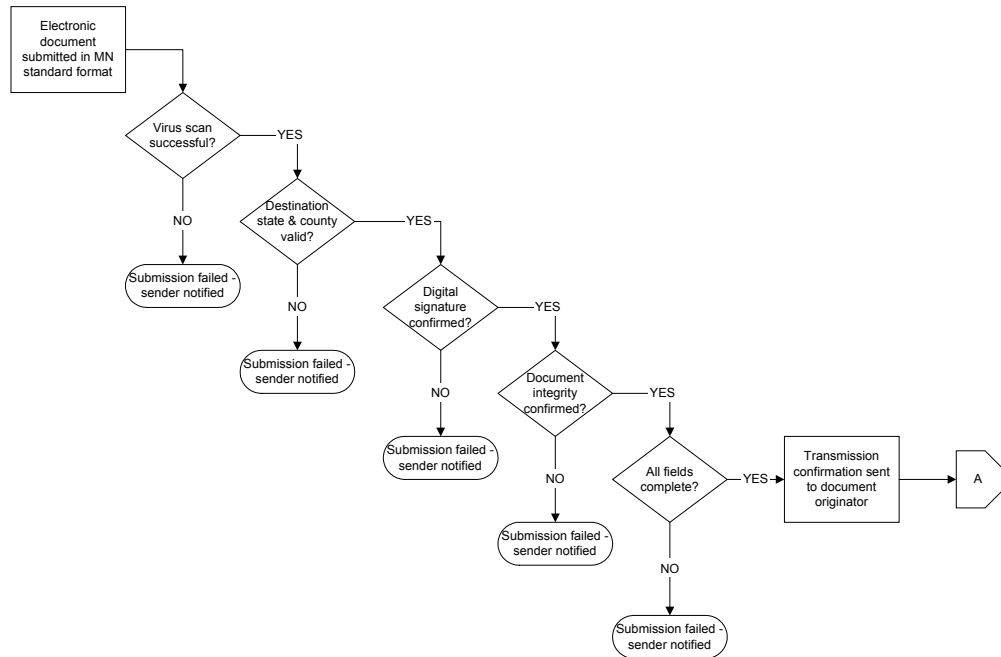
APPENDIX B - BEST PRACTICE WORKFLOW

ERER Business Analyst Services Project Best Practice Real Estate Recording Process Flow Trusted Partner Qualification



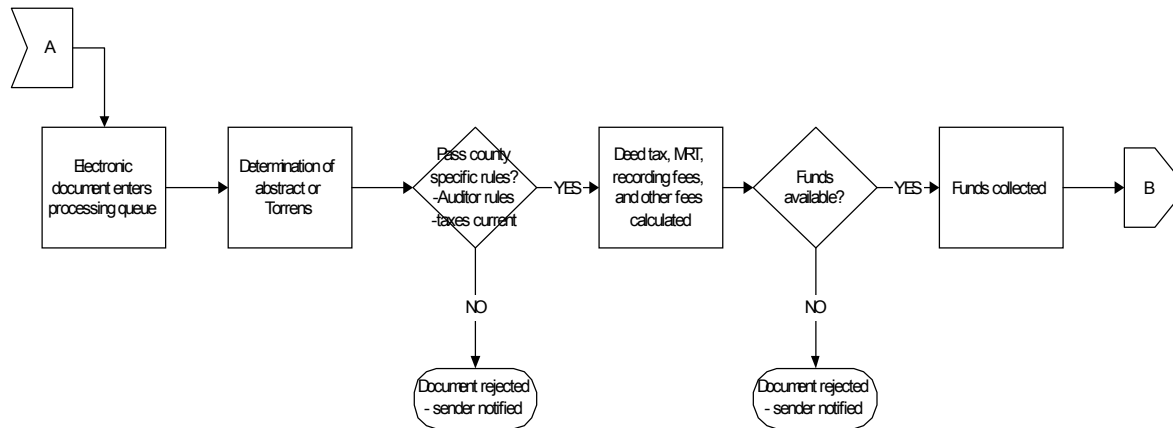
Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

**ERER Business Analyst Services Project
Best Practice Real Estate Recording Process Flow
Document Submission**



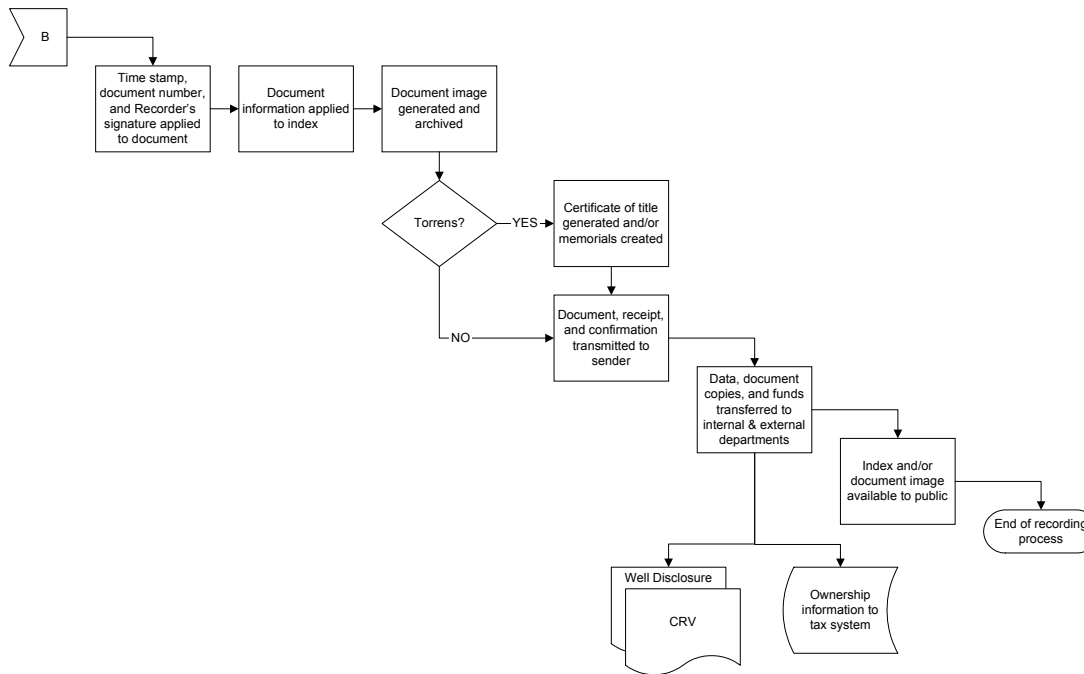
Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

**ERER Business Analyst Services Project
Best Practice Real Estate Recording Process Flow
Document Validation**



Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

**ERER Business Analyst Services Project
Best Practice Real Estate Recording Process Flow
Document Recording**



Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

APPENDIX C - SATISFACTION USE CASE

ERERTF Satisfaction Use Case DRAFT

Version	Date	Editor	Description
	03/05/02	Pam Trombo	Initial Version
	04/24/02	Pam Trombo	Modifications based on review from Schema meeting on 04/22/02
	04/30/02	Pam Trombo	Modifications based on review from Content and Workflow meeting on 04/29/02

Goal:

Mortgage Holder Personnel creates a Satisfaction document for a mortgage and submits the document and the fees to the appropriate county.

Mortgage Holder Official signs the Satisfaction.

Notary witnesses the signatures on the Satisfaction.

County Office is the single point of entry for all documents, which will then be circulated appropriately throughout the Recorder/Registrar of Titles, Auditors and Treasurer's offices according to the specific county's workflow process.

County Recorder signs the recorded Satisfaction document for abstract property.

County Recorder Personnel receives the Satisfaction for abstract property, performs all tasks to: validate the documents, process the fees, record the document, index the appropriate information, make the information available for public viewing and return the document to the submitting party.

Registrar of Titles signs the recorded Satisfaction document for torrens property.

Registrar of Titles Personnel receives the Satisfaction for torrens property, performs all tasks to: process the fees, record the document, index the appropriate information, create a memorial on the Certificate of Title, make the information available for public viewing and return the document to the submitting party.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Permission is granted to copy and use the individual documents herein. Reproduction or copying by any method for sale, resale or redistribution without the express written permission of the Minnesota Secretary of State is strictly prohibited.

Scope: This use case encompasses the process of submitting the Satisfaction document to the recorder's office, having it recorded, collecting the appropriate fees and then returning the document to the submitting party.

Definitions:

Mortgagor (borrower): an individual or corporation who mortgages property

Mortgagee (lender): an individual or corporation to whom property is [mortgaged](#)

Document number: A unique identification number assigned to a document.

Recorded: A document is assigned a date, time and a document number by the Recorder's office in the appropriate county

Indexed: A means of filing a document using specific data to allow searching capability for easy retrieval in the future

Actors:

- Mortgage Holder Personnel
- Mortgage Holder Official
- Notary
- County Recorder Personnel
- County Recorder
- Registrar of Titles
- Registrar of Titles Personnel
- County Office

Functional Requirements:

1. The County Office will be the single point of entry for all documents
2. The applicable documents are retrieved by the appropriate offices within the county as dictated by the specific county's workflow rules
3. The document meets Minnesota Standards Specifications
4. The recorder's office collects the fees
5. No name changes have transpired since the mortgage was recorded (for Torrens property)
6. The document is presented to the correct county
7. Property on document is contained in one county
8. The submitting party is capable of submitting and receiving the document
9. The county is capable of receiving and returning the document
10. Funds are processed/distributed to other local/state government units as required by jurisdictional requirements
11. Data used for indexing is compatible with current systems

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

12. Recorder is able to capture an archival quality record of the data/document
13. Identified and authorized submitter has an account in good standing (ie. A sufficient amount of money is available to pay fees for recording)
14. The lender is an individual or more than one individual, a company or a partnership
15. The borrower is an individual or more than one individual, a company or a partnership
16. No other documents are submitted with the Satisfaction document

Trigger:

- The final payment for a mortgage is received by the lender

Assumptions

1. All the necessary information in the document is present and correct
2. The correct fees are paid for recording the document

Successful End Condition:

1. Document has been recorded, indexed and made available for public viewing
2. Document has been returned to the submitting party with the recorded information and receipt of fees processed
3. Mortgage is satisfied

Abstract Main Course Scenario:

Step	Actor	Action
1	Mortgage Holder Personnel	Satisfaction document is prepared for appropriate parties.
2	Mortgage Holder Official	Signs Satisfaction document
3	Notary	Notarizes Satisfaction document (signs and stamps seal on it)
4	Mortgage Holder Personnel	Submits Satisfaction document to County Office
5	County Recorder Personnel	Receives Satisfaction document
6	County Recorder Personnel	Validates information on Satisfaction document is recordable
7	County Recorder Personnel	Validates funds are available for correct fees
8	County Recorder Personnel	Processes correct fees for recording the Satisfaction document

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

9	County Recorder Personnel	Receipts fees
10	County Recorder Personnel	Records Satisfaction document (signs the document and assigns date, time and document number)
11	County Recorder	Signs Satisfaction document
12	County Recorder Personnel	Indexes appropriate information from Satisfaction document
13	County Recorder Personnel	Archives Satisfaction document
14	County Recorder Personnel	Returns recorded Satisfaction document with receipt of fees processed to submitting party
15	Mortgage Holder Personnel	Receives recorded Satisfaction document with receipt of fees processed

Torrens Main Course Scenario:

Step	Actor	Action
1	Mortgage Holder Personnel	Satisfaction document is prepared for appropriate parties.
2	Mortgage Holder Official	Signs Satisfaction document
3	Notary	Notarizes Satisfaction document (signs and stamps seal on it)
4	Mortgage Holder Personnel	Submits Satisfaction document to County Office
5	Registrar of Titles Personnel	Receives Satisfaction document
6	Registrar of Titles Personnel	Validates information on Satisfaction document is recordable
7	Registrar of Titles Personnel	Validates funds are available for correct fees
8	Registrar of Titles Personnel	Processes correct fees for recording the Satisfaction document
9	Registrar of Titles Personnel	Receipts fees
10	Registrar of Titles Personnel	Records Satisfaction document (signs the document and assigns date, time and document number)
11	Registrar of Titles	Signs Satisfaction document
11.1	Registrar of Titles Personnel	Creates memorial on Certificate of Title
12	Registrar of Titles Personnel	Indexes appropriate information from Satisfaction document
13	Registrar of Titles	Archives Satisfaction document

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

14	Registrar of Titles Personnel	Returns recorded Satisfaction document with receipt of fees processed to submitting party
15	Mortgage Holder Personnel	Receives recorded Satisfaction document with receipt of fees processed

Recorder/Registrar of Titles' Office Alternative Scenarios:

Recorder/Registrar of Titles' Office Alternative Scenario 1: Any fees that are not required for the document will have the appropriate step removed from the Recorder or Registrar of Titles' Main Course Scenarios (ie. exempt from recording fees).

Recorder/Registrar of Titles' Office Alternative Scenario 2: Any fees that will be billed at a later date will have the appropriate step removed from the Recorder or Registrar of Titles' Main Course Scenarios (ie. exempt from recording fees).

Exception Scenarios:

Assumptions:

1. The document is returned to submitter with notification of reason(s) for rejection

Failed End Condition:

1. Document is not recorded, indexed or made available for public viewing (ie. It is rejected by the county recorder office personnel)
2. Document has been returned to the submitting party with rejection reasons
3. No fees have been processed
4. Mortgage is not satisfied

Exception Scenario 1: **Document for abstract property is rejected by the recorder's office.**

Step	Actor	Action
8	County Recorder Personnel	Rejects Satisfaction document and identifies reasons for rejection
9	County Recorder Personnel	No Action.
10	County Recorder Personnel	No Action.
11	County Recorder Personnel	No Action.
12	County Recorder Personnel	No Action.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

13	County Recorder Personnel	No Action.
14	County Recorder Personnel	Returns Satisfaction document and rejection reasons to submitting party
15	Mortgage Holder Personnel	Receives Satisfaction document and rejection reasons from Recorder's Office

Exception Scenario 2: Document for torrens property is rejected by the Registrar of Titles' office.

Step	Actor	Action
8	Registrar of Titles Personnel	Rejects Satisfaction document and identifies reasons for rejection
9	Registrar of Titles Personnel	No Action.
10	Registrar of Titles Personnel	No Action.
11	Registrar of Titles	No Action.
11.1	Registrar of Titles Personnel	No Action.
12	Registrar of Titles Personnel	No Action.
13	Registrar of Titles	No Action.
14	Registrar of Titles Personnel	Returns Satisfaction document and rejection reasons to submitting party
15	Mortgage Holder Personnel	Receives Satisfaction document and rejection reasons from Registrar of Titles Office

Volume:

- 10% - 30% of documents received at county are Satisfaction
- ranges from 1300 to 100,000 Satisfaction documents per year depending on size of county

Issues Related to Use Case:

Major Issues for the Group:

Issues to be Researched for the Use Case:

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

APPENDIX D - CLOSING PACKAGE USE CASE

ERERTF Closing Use Case DRAFT

Version	Date	Editor	Description
	03/19/02	Pam Trombo	Initial Version
	04/24/02	Pam Trombo	Modifications based on review from Schema meeting on 04/22/02
	04/30/02	Pam Trombo	Modifications based on review from Content and Workflow meeting on 04/29/02

Goal:

Mortgage Company personnel prepare the Mortgage and Assignment of Mortgage documents and submit them to the Title Company executing the closing.

Title Company personnel prepare the Certificate of Release and include it in the package consisting of the Warranty Deed, the Mortgage and the Assignment of Mortgage that were received from the appropriate parties, calculates and provides funds for the necessary fees and fills out the Certificate of Real Estate Value (CRV) and Well Disclosure Certificate, if necessary.

Notary witnesses the signatures on the documents.

County Office is the single point of entry for all documents, which will then be circulated appropriately throughout the Recorder/Registrar of Titles, Auditors and Treasurer's offices according to the specific county's workflow process.

County Recorder signs the recorded documents for Abstract Property.

County Recorder Personnel receives the document package for abstract property, performs all tasks to: validate the documents, process the appropriate fees, record the documents, index the appropriate information, make the information available for public viewing, forward specific documents to appropriate parties and return the document package to the submitting party.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Registrar of Titles signs the recorded documents for Torrens Property.

Registrar of Titles Personnel receives the document package for torrens property, performs all tasks to: validate the documents, process the appropriate fees, record the documents, index the appropriate information, make the information available for public viewing, forward specific documents to appropriate parties and return the document package to the submitting party.

County Treasurer verifies applicable taxes (e.g. Mortgage Registration Tax) and processes appropriate fees.

County Auditor Personnel validates appropriate information on the documents, verifies that delinquent taxes are paid, verifies applicable taxes (e.g. State Deed Tax) and handles CRV processing.

County Auditor signs the Warranty Deed and/or Mortgage Documents.

County Assessor Personnel processes the CRV document.

Department of Health receives and processes the Well disclosure Certificate.

Department of Revenue receives and processes the CRV document.

Scope: This use case encompasses the process of submitting the document package containing the Warranty Deed, Mortgage, Assignment of Mortgage and Certificate of Release and any ancillary documents necessary department within the county office, have all documents recorded, collect the appropriate fees and then return the documents in the package to the submitting party.

Definitions:

Document number: A unique identification number assigned to a document.

Recorded: A document is assigned a date, time and a document number.

Indexed: A means of filing a document using specific data to allow searching capability for easy retrieval in the future

Well Disclosure Certificate: A Well Disclosure Certificate generally must accompany all property transfers that convey property that has a well; where the state deed tax exceeds \$1.65; and the transfer requires a Certificate of Real Estate Value to be filed. Well statements are not required when the transfer relates to property that does not have a well located on it. If there are no wells on the property, the transfer document must contain a statement attesting to this fact.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Certificate of Real Estate (CRV): Information about the seller, buyer and the property being sold.

Document Package: A means of keeping all the appropriate documents for the same transaction together

Actors:

- Mortgage Company Personnel
- Title Company Personnel
- Notary
- County Auditor Personnel
- County Auditor
- County Treasurer
- County Recorder
- County Recorder Personnel
- Registrar of Titles
- Registrar of Titles Personnel
- County Office

Functional Requirements/Assumptions:

1. The County Office will be the single point of entry for all documents
2. The applicable documents are retrieved by the appropriate offices within the county as dictated by the specific county's workflow rules
3. Property is not a split
4. The document package is presented to the correct county
5. Property on document is contained in one county
6. The document package is presented to the correct county
7. Property on all documents is in one county
8. All documents meet Minnesota standards specifications
9. No name changes have transpired since the seller's mortgage was recorded (for torrens property)
10. All documents are submitted in the same document package
11. All documents in the same document package are for the same property and same transaction
12. The recorder's office collects all recording fees
13. The auditor's office verifies and collects applicable tax(es) and fees
14. The treasurer's office verifies and collects applicable tax(es) and fees
15. The submitting party is capable of submitting and receiving the document
16. The county office is capable of receiving and returning the document
17. The property has not already been deeded to another party (for torrens property)
18. Title search is performed by the title company or abstractor

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

19. Title Insurance Binder is prepared by the title company and present at the closing, but not in package sent to the County Office
20. Title Company personnel drafts the Warranty Deed and Certificate of Release
21. Mortgage Company personnel drafts the Mortgage and Assignment of Mortgage
22. Funds are processed/distributed to other local/state government units as required by jurisdictional requirements
23. Data used for indexing is compatible with current systems
24. Recorder is able to capture an archival quality record of the data/document
25. Data/documents are transferred to other local, state, or other government units as may be required by jurisdictions
26. Identified and authorized submitter has an account in good standing (ie. A sufficient amount of money is available to pay fees for recording)
27. The lender of the mortgage is an individual or group of individuals, a company or partnership
28. The borrower of the mortgage is an individual or group of individuals, a company or partnership
29. No other ancillary documents are submitted outside of the mentioned documents

Trigger:

- All documents are signed and initialed at closing and prepared in a document package (Warranty Deed, CRV, Well Disclosure Certificate, Mortgage, Assignment of Mortgage and Certificate of Release) to be submitted to the county office

Main Course Scenarios:

Assumptions:

1. All the necessary information in the Warranty Deed document is present and correct
2. All necessary information in the Mortgage document is present and correct
3. All necessary information in the Assignment of Mortgage document is present and correct
4. All necessary information in the Certificate of Release document is present and correct
5. The correct recording fees are submitted
6. The correct state deed tax is submitted
7. The correct mortgage registration tax is submitted
8. All additional fees are submitted and are correct
9. All delinquent taxes are paid
10. Well Disclosure Certificate is required and does accompany the Warranty Deed document.
11. CRV P20 form is required, filled in correctly and accompanies the Warranty Deed document.

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

12. CRV P20A form is not required and does not accompany the Warranty Deed Document
13. State deed tax exceeds \$1.65 (\$1.70 in Hennepin County) (ie. consideration is greater than \$500.00).

Successful End Condition:

1. Warranty Deed document has been recorded, indexed and made available for public viewing
2. Mortgage document has been recorded, indexed and made available for public viewing
3. Assignment of Mortgage document has been recorded, indexed and made available for public viewing
4. Certificate of Release document has been recorded, indexed and made available for public viewing
5. Public information on the CRV is made available for public viewing (ie. the Social Security Number's are not available for public viewing)
6. Document package has been received by the submitting party
7. CRV information is received at the Department of Revenue
8. Well Certificate is received at the Department of Health
9. All fees required are paid for
10. Tax records for property have been updated with correct information
11. Property is transferred

1.1 Private Sector's Main Course Scenarios:

Private Sector's Abstract Main Course Scenario: Abstract document package is submitted to the County Office

Step	Actor	Action
1	Title Company Personnel	Prepares Warranty Deed for appropriate parties.
2	Title Company Personnel	Prepares CRV for appropriate parties.
3	Title Company Personnel	Prepares Well Disclosure Certificate for appropriate parties.
4	Mortgage Company Personnel	Prepares Mortgage for appropriate parties (see MISMO Use Case)
5	Mortgage Company	Prepares Assignment of Mortgage document for appropriate parties.
6	Mortgage Company Official	Signs Assignment of Mortgage document

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

7	Notary at Mortgage Company	Notarizes Assignment of Mortgage document (signs and stamps seal on it)
8	Mortgage Company Personnel	Submits Mortgage and Assignment of Mortgage documents to Title Company.
9	Title Company Personnel	Receives Mortgage and Assignment of Mortgage documents.
10	Title Company Personnel	Certificate of Release document is prepared for appropriate parties.
11	Title Company official	Signs Certificate of Release document
12	Notary	Notarizes Certificate of Release document (signs and stamps seal on it)
13	Title Company Personnel	Prepares all documents into a package (Warranty Deed, CRV, Well Disclosure Certificate, Mortgage, Assignment of Mortgage and Certificate of Release)
14	Borrower Representative	Signs Mortgage document.
15	Borrower Representative	Initializes Mortgage document.
16	Notary at closing	Notarizes Mortgage document (signs and stamps seal on it)
17	Seller Representative of property	Signs Warranty Deed
18	Seller Representative of property	Signs Well Disclosure Certificate
19	Buyer Representative of property	Signs CRV.
20	Buyer Representative of property	Signs Well Disclosure Certificate
21	Notary at Closing	Notarizes Warranty Deed document (signs and stamps seal on it)
22	Title Company Personnel	Submits document package to County Office
23	Title Company Personnel	Receives document package with receipt of fees processed from the Recorder's office

Private Sector's Torrens Main Course Scenario: Torrens document package is submitted to the County Office

Step	Actor	Action
1	Title Company Personnel	Prepares Warranty Deed for appropriate parties.
1.1	Title Company Personnel	Prepares Affidavit of Purchaser.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

2	Title Company Personnel	Prepares CRV for appropriate parties.
3	Title Company Personnel	Prepares Well Disclosure Certificate for appropriate parties.
4	Mortgage Company Personnel	Prepares Mortgage for appropriate parties (see MISMO Use Case)
5	Mortgage Company	Prepares Assignment of Mortgage document for appropriate parties.
6	Mortgage Company Official	Signs Assignment of Mortgage document
7	Notary at Mortgage Company	Notarizes Assignment of Mortgage document (signs and stamps seal on it)
8	Mortgage Company Personnel	Submits Mortgage and Assignment of Mortgage documents to Title Company.
9	Title Company Personnel	Receives Mortgage and Assignment of Mortgage documents.
10	Title Company Personnel	Certificate of Release document is prepared for appropriate parties.
11	Title Company official	Signs Certificate of Release document
12	Notary	Notarizes Certificate of Release document (signs and stamps seal on it)
13	Title Company Personnel	Prepares all documents into a package (Warranty Deed, CRV, Well Disclosure Certificate, Mortgage, Assignment of Mortgage and Certificate of Release)
14	Borrower Representative	Signs Mortgage document.
15	Borrower Representative	Initializes Mortgage document.
16	Notary at closing	Notarizes Mortgage document (signs and stamps seal on it)
17	Seller Representative of property	Signs Warranty Deed
18	Seller Representative of property	Signs Well Disclosure Certificate
19	Buyer Representative of property	Signs CRV.
20	Buyer Representative of property	Signs Well Disclosure Certificate
20.1	Buyer Representative of property	Signs Affidavit of Purchaser
21	Notary at Closing	Notarizes Warranty Deed document (signs and stamps seal on it)

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

22	Title Company Personnel	Submits document package to County Office
23	Title Company Personnel	Receives document package with receipt of fees processed from the Registrar of Titles' office

1.2 County Office Main Course Scenarios:

Assumptions:

1. The Recorder/Registrar of Titles' office is the first and last office within the county office to process the documents

Recorder's Office Abstract Main Course Scenario: Document package is for property that is Abstract.

Abstract Document package processed in county office in the following steps:

- 1) Recorder's office retrieves documents from County Office
- 2) Recorder's office submits document package to Auditor/Treasurer's office
- 3) Auditor/Treasurer's office submits document package to Recorder's office
- 4) Recorder's office submits document package to Title Company

Step	Actor	Action
1	County Recorder Personnel	Retrieves document package from County Office
2	County Recorder Personnel	Validates information is recordable on all documents in document package. <ul style="list-style-type: none"> • PIN number is correct • Legal description is correct • Not a split (if capable of identifying)
3	County Recorder Personnel	Verifies CRV is required and accompanies document package.
4	County Recorder Personnel	Verifies Well Disclosure Certificate is required and accompanies document package.
5	County Recorder Personnel	Submits document package to Auditor/Treasurer's office
6	County Recorder Personnel	Receives document package from Auditor/Treasurer's office
7	County Recorder Personnel	Records Warranty Deed document (assigns date, time and document number)
8	County Recorder	Signs Warranty Deed document
9	County Recorder Personnel	Records Mortgage document (assigns date, time and document number)
10	County Recorder	Signs Mortgage document

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

11	County Recorder Personnel	Fills in Mortgage document number on the Assignment of Mortgage document.
12	County Recorder Personnel	Records Assignment of Mortgage document (assigns date, time and document number)
13	County Recorder	Signs Assignment of Mortgage document
14	County Recorder Personnel	Records Certificate of Release document (assigns date, time and document number)
15	County Recorder	Signs Certificate of Release document
16	County Recorder Personnel	Indexes appropriate information from Warranty Deed document
17	County Recorder Personnel	Indexes appropriate information from Mortgage document
18	County Recorder Personnel	Indexes appropriate information from Assignment of Mortgage document
19	County Recorder Personnel	Indexes appropriate information from Certificate of Release document
20	County Recorder Personnel	Archives Warranty Deed document
21	County Recorder Personnel	Archives Mortgage document
22	County Recorder Personnel	Archives Assignment of Mortgage document
23	County Recorder Personnel	Archives Certificate of Release document
24	County Recorder Personnel	Returns recorded document package consisting of Warranty Deed, Mortgage, Assignment of Mortgage and Certificate of Release and receipt of fees processed to the Title Company
25	County Recorder Personnel	Submits Well Disclosure Certificate information to the Department of Health.
26	Department of Health	Receives Well Disclosure Certificate information

Registrar of Titles' Office Torrens Main Course Scenario: Document package is for property that is Torrens.

Torrens Document package processed in county office in the following steps:

- 1) Registrar of Titles' office retrieves documents from County Office
- 2) Registrar of Titles' office submits document package to Auditor/Treasurer's office
- 3) Auditor/Treasurer's office submits document package to Registrar of Titles' office
- 4) Registrar of Titles' office submits document package to Title Company

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Step	Actor	Action
1	Registrar of Titles Personnel	Receives document package from County Office
2	Registrar of Titles Personnel	Validates information is recordable on all documents in document package
2.1	Registrar of Titles Personnel	Verifies CRV is required and accompanies document package.
3	Registrar of Titles Personnel	Verifies CRV is required and accompanies document package.
4	Registrar of Titles Personnel	Verifies Well Disclosure Certificate is required and accompanies document package.
5	Registrar of Titles Personnel	Submits document package to Auditor/Treasurer's office
6	Registrar of Titles Personnel	Receives document package from Auditor/Treasurer's office
7	Registrar of Titles Personnel	Records Warranty Deed document (assigns date, time and document number)
8	Registrar of Titles	Signs Warranty Deed document
9	Registrar of Titles Personnel	Records Mortgage document (assigns date, time and document number)
10	Registrar of Titles	Signs Mortgage document
11	Registrar of Titles Personnel	Fills in Mortgage document number on the Assignment of Mortgage document.
12	Registrar of Titles Personnel	Records Assignment of Mortgage document (assigns date, time and document number)
13	Registrar of Titles	Signs Assignment of Mortgage document
14	Registrar of Titles Personnel	Records Certificate of Release document (assigns date, time and document number)
15	County Recorder	Signs Certificate of Release document
16	Registrar of Titles Personnel	Indexes appropriate information from Warranty Deed document
17	Registrar of Titles Personnel	Indexes appropriate information from Mortgage document
18	Registrar of Titles Personnel	Indexes appropriate information from Assignment of Mortgage document
19	Registrar of Titles Personnel	Indexes appropriate information from Certificate of Release document
20	Registrar of Titles Personnel	Archives Warranty Deed document
21	Registrar of Titles Personnel	Archives Mortgage document

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

22	Registrar of Titles Personnel	Archives Assignment of Mortgage document
23	Registrar of Titles Personnel	Archives Certificate of Release document
23.1	Registrar of Titles Personnel	Creates memorial on current Certificate of Title for the Certificate of Release
23.2	Registrar of Titles Personnel	Cancels current Certificate of Title
23.3	Registrar of Titles Personnel	Creates new Certificate of Title
23.4	Registrar of Titles Personnel	Creates memorial on new Certificate of Title for the Assignment of Mortgage
24	Registrar of Titles Personnel	Returns recorded document package consisting of Warranty Deed, Mortgage, Assignment of Mortgage and Certificate of Release and receipt of fees processed to the Title Company
25	Registrar of Titles Personnel	Submits Well Disclosure Certificate information to the Department of Health.
26	Department of Health	Receives Well Disclosure Certificate information

Recorder/Registrar of Titles' Office Alternative Scenarios:

Recorder/Registrar of Titles' Office Alternative Scenario 1: Any document that is not required in the package will have the appropriate step removed from the Recorder/Registrar of Titles' Main Course Scenarios. (e.g. Well Disclosure Certificate, CRV)

Recorder/Registrar of Titles' Office Alternative Scenario 2: Any fee that is not required in the package will have the appropriate step removed from the Recorder/Registrar of Titles' Main Course Scenarios.

Recorder/Registrar of Titles' Office Alternative Scenario 3: Any fee that is billed at a later date will have the appropriate step removed from the Recorder/Registrar of Titles' Main Course Scenarios.

Recorder/Registrar of Titles' Office Alternative Scenario 4: Documents have been processed by the Auditor/Treasurer's office

Step	Actor	Action
1	County Recorder Personnel	Receives document package from Auditor/Treasurer's Office
2	County	Validates information is recordable on all documents

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

	Recorder/Registrar of Titles Personnel	in document package. <ul style="list-style-type: none"> PIN number is correct Legal description is correct
3	County Recorder/Registrar of Titles Personnel	No Action
5	County Recorder/Registrar of Titles Personnel	No Action.
6	County Recorder/Registrar of Titles Personnel	No Action.

1.3 Auditor/Treasurer's Office Main Course Scenarios:

NOTE: This is from the auditor/treasurer's view point at the time of initially receiving the document package for processing.		Office Going to	
		Recorder/Registrar of Titles	County Office
Office Coming From	Recorder/Registrar of Titles	MCS	N/A
	County Office	AS3	N/A

MCS = Main Course Scenario

AS = Alternative Scenario

Auditor/Treasurer's Office Abstract Main Course Scenario:

Document package is processed in the Auditor/Treasurer's office by the following steps:

- 1) Recorder's office submits document package to Auditor/Treasurer's office
- 2) Auditor/Treasurer's office submits document package to Recorder's office

Step	Actor	Action
1	County Auditor/Treasurer Personnel	Receives document package from Recorder's office
2	County Auditor/Treasurer Personnel	Validates information on applicable documents in document package <ul style="list-style-type: none"> Not a split
3	County Auditor Personnel	Verifies CRV is required and filled in properly.
4	County Auditor	Assigns unique sequential number, PIN's and date to

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

	Personnel	CRV document
5	County Auditor Personnel	Keeps CRV document.
6	County Auditor Personnel	Verifies delinquent taxes are paid.
7	County Auditor/Treasurer Personnel	Verifies applicable taxes and/or fees are correct.
8	County Auditor/Treasurer Personnel	Receipts applicable taxes and/or fees.
9	County Treasurer	Verifies funds are available for all taxes and fees to be paid.
10	County Treasurer	Processes fees.
11	County Auditor/Treasurer	Signs and documents information on applicable documents
12	County Auditor Personnel	Submits CRV information to the Department of Revenue.
13	Department of Revenue	Receives CRV information
14	County Auditor Personnel	Submits CRV information to the county assessor's office.
15	County Assessor's office	Receives CRV information
16	County Auditor/Treasurer's office	Submits document package to Recorder's office

Auditor/Treasurer's Office Torrens Main Course Scenario:

Document package is processed in the Auditor/Treasurer's office by the following steps:

- 1) Registrar of Titles office submits document package to Auditor/Treasurer's office
- 2) Auditor/Treasurer's office submits document package to Registrar of Titles office

Step	Actor	Action
1	County Auditor/Treasurer Personnel	Receives document package from Registrar of Titles office
2	County Auditor/Treasure Personnel	Validates information on applicable documents in document package <ul style="list-style-type: none"> • Not a split
3	County Auditor	Verifies CRV is required and filled in properly.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

	Personnel	
4	County Auditor Personnel	Assigns unique sequential number, PIN and date to CRV document
5	County Auditor Personnel	Keeps CRV document.
6	County Auditor Personnel	Verifies delinquent taxes are paid.
7	County Auditor/Treasurer Personnel	Verifies applicable taxes and/or fees are correct.
8	County Auditor/Treasurer Personnel	Receipts applicable taxes and/or fees.
9	County Treasurer	Verifies funds are available for all taxes and fees to be paid.
10	County Treasurer	Processes fees.
11	County Auditor/Treasurer	Signs and documents information on applicable documents
12	County Auditor Personnel	Submits CRV information to the Department of Revenue.
13	Department of Revenue	Receives CRV information
14	County Auditor Personnel	Submits CRV information to the county assessor's office.
15	County Assessor's office	Receives CRV information
16	County Auditor/Treasurer's office	Submits document package to Registrar of Titles' office

Auditor/Treasurer's Office Alternative Scenarios:

Auditor/Treasurer's Office Alternative Scenario 1: Any document that is not required in the package will have the appropriate step removed from the Auditor/Treasurer's Main Course Scenarios. (eg. Well Disclosure Certificate, CRV)

Auditor/Treasurer's Office Alternative Scenario 2: Any fees that are not required in the package will have the appropriate step removed from the Auditor/Treasurer's Main Course Scenarios.

Auditor/Treasurer's Office Alternative Scenario 32: Any fees that will be billed at a later date will have the appropriate step removed from the Auditor/Treasurer's Main Course Scenarios.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Auditor/Treasurer's Office Alternative Scenario 3:

Document package is processed in the Auditor/Treasurer's office by the following steps:

- 1) Auditor/Treasurer's office retrieves document package from County Office
- 2) Auditor/Treasurer's office submits document package to Recorder/Registrar of Titles' office

Step	Actor	Action
1	County Auditor/Treasurer Personnel	Retrieves document package from County office

2. Exception Scenarios:

Assumptions:

1. If any document is not submitted correctly, the entire document package is circulated to all county offices before being returned to the submitter
2. If any document is not submitted correctly, the entire document package is returned to the submitter with notification of reason(s) for rejection

Failed End Condition:

1. No document is recorded, indexed or made available for public viewing
2. Document package and rejection reasons have been returned to the submitting party
3. CRV information is not submitted to the Department of Revenue
4. Well Certificate is not submitted to the Department of Health
5. No fees have been processed
6. Tax records for property have not been updated
7. Property is not transferred

Exception Scenario 1: Document is first processed and rejected by Recorder/Registrar of Titles' office. (See Recorder's Office Main Course and Registrar of Titles' Office Main Course for steps)

Step	Actor	Action
4.1	County Recorder/Registrar of Titles Personnel	Rejects document package and identifies rejection reasons.
5	County Recorder/Registrar of Titles Personnel	Submits document package and rejection reasons to the Auditor/Treasurer's office
6	County Recorder/Registrar of Titles Personnel	Receives document package and rejection reasons from Auditor/Treasurer's office
6.1	County Recorder/Registrar of Titles Personnel	Returns document package and rejection reasons to title company.
6.2	Title Company Personnel	Receives document package and rejection reasons from Recorder/Registrar of Titles' Office

Exception Scenario 3: Document is rejected by Auditor/Treasurer's office. (See Auditor/Treasurer's Office Main Course for steps)

Step	Actor	Action
4	County Auditor Personnel	No Action.
5	County Auditor Personnel	No Action.
8	County Auditor/Treasurer Personnel	No Action.
10	County Treasurer	No Action.
11	County Auditor/Treasurer	No Action.
12	County Auditor Personnel	No Action.
13	Department of Revenue	No Action.
14	County Auditor Personnel	No Action.
15	County Assessor's office	No Action.
16	County Auditor/Treasurer's office	Submits document package and rejection reasons to Registrar of Titles' office

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

Permission is granted to copy and use the individual documents herein. Reproduction or copying by any method for sale, resale or redistribution without the express written permission of the Minnesota Secretary of State is strictly prohibited.

Volume:

- 10% - 30% of documents received at county are Deeds
- ranges from 1100 to 35,000 Deed documents per year depending on size of county
- 5% to 40% of documents received at county are Assignment of Mortgage
- ranges from 360 to 35,000 Assignment of Mortgage documents per year depending on size
- 28% to 70% of documents received at county are Mortgages
- ranges from 1350 to 113,300 Mortgage documents per year depending on size
- 10% - 30% of documents received at county are Satisfactions
- ranges from 1300 to 100,000 Satisfaction documents per year depending on size of county

Issues Related to Use Case:**Major Issues for the Group:****Issues to be Researched for the Use Case:**

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

APPENDIX E – EVALUATION CRITERIA

- 1) Vendor Profile
 - a) Years in business
 - b) Years in this market
 - c) Installed base
 - i) Number of sites
 - ii) Representative client list
 - d) Financial position
 - i) Sales growth
 - ii) Market share
 - iii) Liquidity
 - e) Industry reputation
 - f) Strategic partners
- 2) Customer Support
 - a) Number of support personnel per client
 - b) Type of support available
 - i) Phone
 - ii) On-line
 - iii) On-site
 - iv) Bug fix
 - c) Response time standards
 - d) Planned enhancements
 - e) Release plan
 - i) Monthly, quarterly, or annual product updates
 - ii) Enhancement selection process
 - f) Training options
 - g) User Groups
- 3) Implementation Approach
 - a) General approach
 - b) Adherence to the Standards

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

- c) Work plan
- d) Timeframe
- e) County/State resources required during implementation
- 4) Application Profile
 - a) Hardware requirements
 - i) Platform
 - ii) Processor
 - iii) RAM
 - iv) Disk capacity
 - b) Operating system requirements
 - i) Versions supported
 - c) Database requirements
 - i) Vendors supported
 - ii) Versions supported
 - d) Other infrastructure requirements
 - i) Networking
 - ii) Intra/internet
 - iii) Security
- 5) Application Costs
 - a) Licensing fee structure
 - b) Development costs
 - c) Implementation costs
 - d) Training costs
 - e) Support costs
 - i) Maintenance fees
 - ii) Release/upgrade fees
 - iii) Help Desk fees

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

APPENDIX F – DEFINITION OF ELECTRONIC RECORDING MODELS

Following are brief definitions of the three models of electronic recording. The definitions are based on concepts presented by Fannie Mae and are emerging as standard vocabulary in the industry.

Model 1: Image replaces paper document – At this level the recording process is enhanced by replacing paper documents with electronic images. The submitter must transmit an electronic image of the document to be recorded to the county office. Once received, the county reviews the information on the image and manually enters indexing information into the recording system. The submitter always retains the original document. However, the image becomes the document of record. Efficiencies are achieved at the county by eliminating scanning and mailing processes.

Model 2: Image with electronic signature and indexing information – At this level the recording process is further enhanced by inclusion of indexing data elements and electronic signatures. The submitter transmits an electronic image that is wrapped with a digital signature and certain data elements that will be used to index the document. Once received, the county reviews the information and uses the data provided as indexing information for the recording system. Additional efficiency is gained at this level by eliminating some data entry.

Model 3: Fully electronic – At this level the entire recording process can be completed without manual intervention. The submitter creates an XML based electronic document that includes both data and presentation information. This document is wrapped with a digital signature and may also include digitized signatures. Once received, the county systems will validate document integrity and proceed with automated indexing. Business rules will be used to validate recordability and an image of the document will be generated which becomes the document of record. Receipt and recording information is returned to the submitter electronically. This level provides the greatest efficiency improvement since no manual intervention is required and processing time is greatly reduced.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

APPENDIX G – DELIVERABLES MAPPING

The following grid reconciles the list of 37 considerations contained in the ERERTF work plan dated January 15, 2001 with the deliverables of this project.

Consideration	Deliverable												
	Interview summary/matrix	Survey Summary/matrix	Out of state summary/matrix	Current state model	Best Practice Model	Use Cases	Schema	Sample XSL Document	Data Element List	Legal Considerations	Cost Benefit Analysis	Standards Summary	Out of Scope
1	x	x											
2											x		
3													x
4	x	x											
5													x
6													x
7				x									
8			x										
9													x
10													x
11												x	
12												x	
13					x	x	x	x	x			x	
14												x	
15												x	
16												x	
17												x	
18												x	
19												x	
20												x	
21												x	
22												x	
23											x		
24													x
25												x	
26												x	
27										x			
28										x			
29										x			
30										x			
31											x		
32											x		
33											x		
34											x		
35											x		
36											x		
37											x		

Copyright ©2002
 Secretary of State
 State of Minnesota
 All Rights Reserved

Permission is granted to copy and use the individual documents herein. Reproduction or copying by any method for sale, resale or redistribution without the express written permission of the Minnesota Secretary of State is strictly prohibited.

APPENDIX H – MODEL 1 STANDARDS

It is possible that a County and a Trusted Submitter may decide to Pilot a Model 1 approach. If this is done, it would be beneficial to use standards for Model 1 that could be confirmed in the pilot, and used going forward by other counties who decide to support a Model 1 approach.

We have reviewed the standards used by Maricopa County, AZ and by Orange County, CA. Their standards are very similar, and have been successfully implemented. We have patterned the Model 1 standards on the successful approaches of these two counties.

The following are recommended standards to achieve a Model 1 approach for sending documents electronically between the Trusted Submitter and the State of Minnesota county.

Definition of a Trusted Submitter:

A trusted submitter is an entity that:

- is legally able to transact real estate business in Minnesota,
- has established a contractual agreement with the county that will be accepting the electronic real estate records,
- has agreed to follow the Minnesota Electronic Real Estate Recording Standards as part of the contractual agreement, and
- has performed a test submission with the county to prove that the Standards have been followed.

What is to be transmitted?

A readable TIFF Image is to be transmitted with no less than 200 dpi resolution. The size should be Letter (8.5 X 11 inches) or Legal (8.5 X 14 inches) and scanned in black and white.

Naming Conventions:

Creation of the file:

Each file will contain all the images from one document. Files that need to be processed in the same transaction will have the same order number.

The initial creation of each file containing all the images for one document should be named in the following format:

DDDDDDDD-NN-P-S-X

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

DDDDDDDD: the order number that needs to be 8 characters (you will need to add leading zeros if necessary)

NN: number of scanned pages in the file

P: number of documents to be processed together

S: sequencing order for processing this document with respect to all the documents that are to be processed together

X: Place holder for Torrens or Abstract or Both

Examples:

07893423-7-3-3-T- (3rd document of a 3 document transaction, 7 pages, Torrens)

07893423-1-3-2-A- (2nd document of a 3 document transaction, 1 page, Abstract)

07893423-4-3-1-A- (1st document of a 3 document transaction, 4 pages, Abstract)

Resubmission of the file:

If a file has to be resubmitted due to an error, add an extra number to the end of the order number part as follows:

DDDDDDDDDE-NN-P-S-X-E

E: the number of times the same file has been resubmitted.

How is transmittal achieved?

The file should be transmitted using FTP (File Transport Protocol) to an FTP site maintained by the county.

To ensure security, the file should be encrypted using a file encryption mechanism such as PGP. The Trusted Submitter will use a public key provided by the county. The file will be decrypted by the county, using its private key. Each Trusted Submitter will deposit the files in its personal folder setup for them by the county that also contains a set of folders named: InProcess, Recorded, Indexed and Rejected. Submitted files are moved to these folders by the county when they reach the appropriate status. The Recorded and Rejected folders will contain text files created by the county identifying the recorded information or rejection reasons respectively. These text files will be named using the file name of the associated submitted file.

Copyright ©2002
Secretary of State
State of Minnesota
All Rights Reserved

ERERTF Business Analyst Services Project Legal Considerations Summary

Purpose

The intent of this document is to provide the ERERTF with a summary of the primary legal issues identified to date in connection with implementation of an electronic recording system and the status of the resolution of those issues. This document addresses considerations referenced in items 27 to 30 of the ERERTF workplan dated January 15, 2001.

Background

The Legal Subcommittee of the ERERTF Task Force has discussed and considered many of the legal issues surrounding electronic recording. A significant amount of time and effort has gone into this process. Through the course of the project the BenNevis team has made additional observations which the Legal Subcommittee has considered. This document is an effort to outline and summarize those legal observations and issues and to further summarize the conclusions and recommendations of the Legal Subcommittee as to each.

Considerations and Recommendations.

1. **Pilot Project Enabling Legislation.** Legislation will be needed to enable the pilot project(s) (including “live” e-recording). This legislation presumably will supersede and/or amend the real estate recording exception in UETA, at least to the extent of the scope of the subject pilot project (e.g., limited initially to mortgage satisfactions). Consider whether amendment to Minn. Stat. § 507.24 is necessary to confirm that an e-signature, per UETA § 325L.07, satisfies the original signature requirement. Consider whether the standards necessary to the pilot(s) (and establishment of further “permanent” standards) be established directly in that legislation, by administrative rule pursuant to that legislation, in later legislation, or otherwise?

Conclusions and Recommendation: Legislation has been adopted as Chapter 365 of the 2002 Session Laws to authorize the pilot project(s). It is considered adequate to permit “live” e-recordings. The standards necessary to the pilot(s) will be established by the ERERTF.

2. **Non-Applicability of Non-Standard Document Surcharge.** Consider whether an amendment to Minn. Stat. §507.093 and §508.82 or other legislation is necessary or otherwise worthwhile to confirm that the surcharge contemplated by §507.093(b) and §508.82, subd. 2, respectively, will not apply to documents recorded or filed as part of (and in compliance with) the standards of the pilot project(s) for the electronic filing of real estate documents implemented by the Task Force. In addition, these sections need to be amended or superceded to the extent of the e-document standards being created for the e-recording pilot(s). These modifications to §507.093 and §508.82 might logically be made part of the pilot project enabling legislation.

Conclusions and Recommendation: The uniform document standards and surcharge provisions for non-uniform documents set in the above-referenced statutes are considered superseded by the above-referenced pilot project enabling legislation as to documents to be recorded pursuant to the pilot project(s). Legislation permanently setting post-pilot statewide standards for e-recorded documents and any associated non-standard surcharge provisions will be needed upon completion of the pilot project(s). That permanent legislation is on the Legal Subcommittee's long-term "to do" list.

3. Overlay Legislation to Eliminate Historic "Paper" Oriented Requirements. Consider general "overlay" legislation (and/or individual, specific statutory amendments in some instances) to supersede various paper-oriented recording requirements appearing throughout Minnesota Statutes (for example, requirements which specify a specific color of ink (e.g., Minn. Stat. §505.03), requirements which contemplate signatures on the back of documents (e.g., Minn. Stat. §1031.235); requirements for attestation on an instrument (e.g., §256.263); requirements for endorsements or notes upon, or on the face of, instruments (e.g., Minn. Stat. §§1031.235, 834.04, 272.12, 287.08, 287.25); and requirements for "substantially bound" books (e.g., Minn. Stat. §356.03)).

Conclusions and Recommendation: The above referenced "overlay" legislation, probably coupled with at least several specific statutory amendments, is considered necessary and would best be completed following completion of the pilot project(s). Such legislation is on the Legal Subcommittee's long-term "to do" list.

4. Recording Priority vis-à-vis Delivery Method. It appears there is no uniform system in place by which all counties prioritize for recording instruments received in person (i.e., "over the counter") vis-à-vis those instruments received by mail (and, in some cases, vis-à-vis those delivered by title companies). Electronic delivery of instruments for recording will presumably add to this lack of uniformity, absent corrective standards.

Very generally said, the Minnesota Recording Act provides that the first instrument duly recorded will have priority over an instrument later recorded. Minn. Stat. §386.31 goes on to provide the recording number given to an instrument by the county is prima facie evidence of the priority of "registration" and that the county is to give each instrument a consecutive recording number as soon as received for filing ("to the extent practicable"). In addition, the county is to keep grantor and grantee reception books (§386.03, §507.37) and a consecutive index book (§386.32), in which each instrument is to be entered as soon as received by the county. The grantor/grantee reception books and consecutive index book may be condensed per §386.04.

Presumably, each county's recording processes satisfy the foregoing requirements, possibly with differing interpretations of when a document is "received". (For example, a county may treat a document as "received" immediately upon delivery "over the counter" assuming it is in form acceptable for recording, whereas a document delivered by mail

may not be treated as “received” until the end of the county’s office hours on the day during which that document arrived by mail at the county offices.) There does not appear to be an existing statewide standard governing when a document is to be deemed “received” by the county for recording, at least not vis-à-vis other documents delivered that same day.

Although priority disputes which are dependent upon time of receipt by the county appear infrequent, consideration should be given to legislating, or otherwise providing, a more detailed standard or rule governing the priority of, and/or time of receipt as between, instruments delivered by the various methods described. It appears there may be a general consensus that instruments delivered “over the counter” should be given priority over instruments delivered by other means. If, however, an e-recording process evolves to the point where an e-delivered document is processed and returned to sender electronically more or less immediately, then treating such an electronically delivered document as received (and recorded) subsequent to documents delivered later that day “over the counter” or otherwise may likely be inconsistent with the above-cited statutory provisions. Depending upon the standards chosen, some of the aforementioned statutes may require amendment.

Also, consider whether the provisions of UETA §325L.15 regarding time of receipt will be automatically superseded (pursuant to the terms of UETA §325L.18) by governmental standards concerning “receipt” of documents delivered electronically for recording as contemplated above in this Paragraph 4.

Conclusions and Recommendation: The filing of real estate documents and their numbering was discussed at some length by both the Legal Subcommittee and the Executive Committee of the ERERTF. It was acknowledged that the document number does not govern priority. It was agreed that date and time of acceptance of a document for recording would be preferred to the statutorily mandated consecutive numbering system. Further discussion was had as to when a document is accepted for recording vis-à-vis delivery and priority. There appears to be a consensus that the date and time of acceptance should govern priority, but that each county would or should have discretion to set its own policy in regard to the precise process of affixing such date and time to documents. Amendment of Minn. Stat. § 386.31 consistent with the foregoing has been placed on the long-term “to do” list of the Legal Subcommittee.

5. Elimination of Paper CRV Form. Consider legislation, or rule change by the commissioner of the Department of Revenue, to eliminate the requirement for the carbon paper form of the Certificate of Real Estate Value (“CRV”) currently being used, or, in the alternative, affirmatively allow a paperless e-alternative form, in order that CRVs can be filed electronically. (See Minn. Stat. § 272.115).

Conclusions and Recommendation: The ERERTF is seeking feedback from the Department of Revenue as to an e-recordable CRV form (in which the social security number of the parties is “hidden” to satisfy privacy requirements). The Legal Subcommittee expects to further consider legislation expressly authorizing an e-recordable form of the CRV and has placed this item on its long-term “to do” list.

6. Well Disclosure Certificate Drawing. Consider legislation (or perhaps a mere form change) which eliminates, replaces or further qualifies the requirement for a map to be drawn on the well disclosure form showing the location of wells. Such a change should allow a more e-user-friendly means of satisfying the well disclosure certificate requirements under Minn. Stat. § 103I.235. A written description of well location could be considered as an alternative to the drawing. Note that § 103I.235, subd. 1 does state that a map is to be drawn “to the extent practicable”.

Conclusions and Recommendation: Consensus was reached that, in lieu of the paper map currently used in most cases, a textual description or electronic drawing should be permissible. The ERERTF is establishing a liaison with the Department of Health to discuss this further and to implement any agreed upon changes.

7. Electronic Return of e-Recorded Documents. Consider legislation amending Minn. Stat. §§ 386.30 and 508.38 which appear to require the return of each recorded instrument either in person or by mail. Return of electronically recorded documents by electronic delivery should likely be provided for in these sections.

Conclusions and Recommendation: Consensus was reached that legislation will be needed to permit post-pilot return of electronically recorded documents by electronic delivery. This item is on the long-term “to do” list of the Legal Subcommittee.

8. Tract Index. To the extent it is determined that a tract index should replace the so-called grantor-grantee index/reception book as the official index, consideration should be given as to whether or not to continue to require the county to maintain a consecutive index (as per Minn. Stat. § 386.32). The consecutive index may, in some counties, have been combined with the grantor/grantee reception book pursuant to Minn. Stat. § 386.04. Preservation of the consecutive index requirement (or a like requirement in case of changes per Paragraph 4 above in this summary) may be worthwhile in connection with priority determinations, depending upon what information will necessarily be “affixed” to a recorded instrument concerning the time of its reception.

Conclusions and Recommendation: A few counties continue to appear opposed to making the tract index the official index in Minnesota. The concern is, in part, lack of certainty in where to index some legals on a tract index and, in part, that some recorded documents have no legal description. Some recorders may feel uncomfortable with their expertise in legal descriptions which would be exacerbated if the tract index becomes the official index. There may further be a perception of increased liability exposure, especially with the smaller counties. No resolution has yet been reached on this issue, but further discussion by the ERERTF is planned.

9. Consistent Standards - Interoperability. To the extent e-recording standards are created and intended to be statewide in their applicability, consider legislation confirming that such state-wide standards are binding upon all counties which elect to participate in e-recording, notwithstanding provisions in Minn. Stat. § 325L.18(a) or § 325L.19, which might be construed to the contrary.

Conclusions and Recommendation: Consensus is reached that legislation will be necessary for post-pilot e-recording which provides for state-wide standards. Such legislation is on the long-term “to do” list of the Legal Subcommittee.

10. Notary Seals. Arguably, certain requirements for legally effective notarization (including need for a notary seal) otherwise provided for in Minn. Stat. Chapters 358 and 359 are eliminated by the provisions of UETA (see § 325L.11). However, consideration should be given to legislation confirming the form and content of a legally sufficient e-notarization of an e-document for recording purposes to avoid uncertainty as to what requirements, if any, currently prescribed for notarization are not satisfied by the mere electronic signature of the notary (i.e. confirm need for certificate of notarial act, including printed name, title, expiration date of commission, etc.). Similarly, review of Minn. Stat. §359.03 may be warranted to confirm whether a seal should be required of a notary who performs notarization only using his or her electronic signature (and so would have no need for a seal other than to comply with the current requirements of Minn. Stat. § 359.03).

Conclusions and Recommendation: There appears to be concurrence that confirmation of the continuing requirement for placing notary information on e-recorded documents, in addition to the notary’s e-signature, is worthwhile. Such clarification vis-à-vis e-recording may likely be best covered by the so-called “overlay legislation” contemplated by Item 3 above. This item is on the long-term “to do” list of the Legal Subcommittee.

11. Allocation of Risk for E-Recording Problems. Consideration should be given to legislation allocating between the private sector and government the financial risks associated with the introduction of electronic technology into the real estate recording system. Possible problems which may give rise to such risks include errors in filing or handling of electronic documents, security breaches, record loss, failure of governmental software systems, failure of private software systems as well as mistakes, fraud or negligence by or involving a private party or parties to an electronic recording transaction. It would appear the primary focus of this inquiry would be on the proper extent of the government’s liability and exposure for problems with those aspects of the e-recording process over which it may have control. At least with respect to governmental filing errors and omissions, there are remedies currently available under Minnesota Statutes to persons claiming a loss due to such errors. For example, with respect to abstract property, the recorder has obligations by statute to accept and record documents presented which are in proper form within certain prescribed time periods and to reject documents which are not properly signed, executed and acknowledged or are otherwise unrecordable (See Minn. Stat. §§ 386.30; 386.39). In the event of a breach of such obligations, an aggrieved person may have various claims against the recorder, as provided and limited in

Minnesota Statute § 466.01 *et. seq.* With respect to certain errors concerning torrens property, the torrens statutory scheme creates a general fund from which a aggrieved person may seek recovery (*See* Minn. Stat. § 508.76 *et. seq.*). All, some or a combination of these remedial provisions could serve as the basis for an appropriate method of allocating and handling the risks attendant to governmental errors and omissions in connection with e-recordings.

Conclusions and Recommendation: There is apparent concurrence that there should be no difference between e-recording and the current paper process in regard to this issue and so no further action is recommended.

12. Definition of the Official Record (Access and Reproduction).

(a) Consideration should be given as to what shall constitute the official “record” of a fully recorded document. Simply put, will a mere image of the document, perhaps taken together with governmental certifications attached to it and/or presumptions of its authenticity and integrity constitute the official “record” or must the entire e-transaction (or set of e-transactions) leading up to and including actual recording be considered the official record (e.g., a deed together with grantor’s e-signature wrap, together with the notary’s e-signature wrap, together with the County’s backroom certifications (possibly wrapped by e-signatures of those back room officials), together with the County’s certifications of recording and addition of recording data (possibly wrapped by e-signature of county recorder or registrar). Resolution of the issue bears on various Minnesota statutory requirements concerning public access to such records, reproduction of such records, preservation and archiving of such records, etc.

(b) Final standards and implementation of standards governing electronic real estate recording, including any which determine what constitutes the “record” itself, will need to be reviewed to confirm that the various requirements of the Official Records Act are satisfied, including confirmation that reproducibility of those “records” meet the archival standards specified by the historical society, all as provided in Minn. Stat. § 15.17.

(c) Similarly, such standards and the implementation of the standards will need to be reviewed to confirm that the various statutory requirements for the public accessibility to such official records are satisfied (*see* Minn. Stat. §§ 13.03 and 138.17). For example, Minn. Stat. § 13.03, subd. 1 requires that such records be kept in such an arrangement and condition as to make them easily assessable for convenient use by the public. Consider, for example, whether the official record of an e-recorded instrument, if comprised of multiple e-transactions, including various e-signature wrappings, will, by its nature, satisfy such assessability requirements. On the other hand, consider whether the official record of an e-recorded instrument should be comprised only of distilled or condensed information which can be reproduced and accessed by the public as a printable image. Consider too, whether the official record might be comprised of the entire e-transaction while at the same time providing the public with an alternative to access only the printable image version if they prefer (as a sort of abstracted copy, but not as the

complete, official record). Also, the above referenced access requirements, and the Governmental Data Practices Act generally, impose substantial obligations on any private vendor who may perform any aspect of the County's role in these respects. Standards developed in these regards should be verified for compliance with such laws.

Conclusions and Recommendation: There is concurrence that a definition of what comprises the "official record" of an e-recorded document is needed and that such "official record" will be the image of the transaction rather than the entire transaction itself (for each document). Legislation will be necessary to create such a definition. This item is on the long-term "to do" list of the Legal Subcommittee.

13. *Social Security Number – Privacy Concerns.* Minn. Stat. § 272.115 provides that the identification numbers of grantors and grantees on a Certificate of Real Estate ("CRV") are private data as to individuals (or nonpublic data as to other entities) but that notwithstanding, such ID numbers may be disclosed to the commission of revenue for purposes of tax administration. This is consistent with Minn. Stat. § 13.49, subd. 1. Although Minn. Stat. § 13.49, subd. 2 provides that social security numbers appearing in documents or records filed or recorded with the county recorder or registrar of titles are not private data, that exception should not apply given that the CRV is to be filed only with the county auditor (per the terms of Minn. Stat. § 272.115). Standards and implementation of standards for the electronic handling of CRV will need to be reviewed to confirm compliance with Minn. Stat. Ch. 13 (Government Data Practices Act), including, but not limited to, the limitations therein as to the collection, storage, use and dissemination of such private data.

Conclusions and Recommendation: There is concurrence that the Department of Revenue should design an e-CRV form which effectively "hides" the social security number to comply with the above privacy requirements. Per Item 5 above, the ERERTF will be working with the Department of Revenue in this respect.

14. *Confidentiality of Other Recording Information.* It appears that currently data ordinarily included in real estate documentation publicly recorded is public data per Minn. Stat. § 13.03 and to which the public has the right to access. Nevertheless, as the electronic real estate recording system and access to the records generated thereby progresses toward systems which may allow the general public to easily perform more detailed searches concerning personal information, consideration should be given to the applicability of Minn. Stat. § 13.05, subd. 5 to such systems. That statutory subdivision requires that a county, being a responsible authority under that statute, establish appropriate security safeguards for all records containing data on individuals. Also, to the extent a County enters into a contract for a private vendor to perform any of it record handling functions, that vendor will need to comply with the requirements of Chapter 13, Government Data Practices Act, including those generally described above (per Minn. Stat. § 13.05, subd. 11). Consider whether standards should specify these requirements.

Conclusions and Recommendation: Following discussion, there was apparent concurrence that no action is currently necessary in regard to the issues addressed in this Item 14.

15. Records Management. Standards and implementation of standards will need to be reviewed for compliance with records management requirements under and pursuant to the Records Management Act (*see* Minn. Stat. § 138.17).

Conclusions and Recommendation: There is concurrence that e-recorded documents should be handled in a manner consistent with the state laws governing records management. The currently proposed standards were developed utilizing state records management guidelines supplied by the State, and so should be in compliance.

16. E-Sign Preemption Issues. Consider further inquiry as to whether, or to what extent, E-Sign may have a preemptive effect on Minn. Stat. §§ 325L, 325K and any legislation necessary to establish and/or implement standards for e-recording in Minnesota.

Conclusions and Recommendation: After thorough discussion, there is concurrence among the Legal Subcommittee that no further action is required on this item.

17. Evidence. Consider whether Minnesota evidentiary rules and practice warrant or require that the official “record” of an electronically recorded document include the entirety of the e-transactions comprising that recorded instrument.

Conclusions and Recommendation: Discussion was had among the Legal Subcommittee regarding issues of proof if the image, rather than the entire transaction, is the “official record” of an e-recorded document. E-signatures eliminate the ability to analyze a signature (i.e., can’t rely on handwriting experts). Assuming only the image is the official record, a person won’t be able to review the underlying e-signature transaction, at least not based solely on the county record. In effect, proof of a signature on an e-recorded document may come down to a presumption of its authenticity. Assuming this, the Legal Subcommittee has placed on its long-term “to do” list further consideration of whether legislation providing for such a presumption based on digital signatures or receipt of a signed document from a trusted business submitter is appropriate and/or necessary. Further consideration will also be given by the Legal Subcommittee to establishing standards defining the qualifications and duties of a trusted business submitter.

18. Issues Concerning Minn. Stat. Chapter 325K. Consider to what extent, if any, the provisions of Minn. Stat. Chapter 325K concerning the rights and obligations of a “recipient” (as defined therein) should be modified if and when the county is such a “recipient” of real estate documents submitted for recording and electronically signed pursuant to that chapter. For example:

- (a) Is a county, by accepting a digital signature, automatically bound by the terms and conditions of the licensed authority’s certification practice statement per Minn.

Stat. §325K.09, subd. 3? Will those terms and conditions be adequately controlled by the State's licensing process?

- (b) Does a county "assume the risk" that a certificate is forged per §325K.20? Should a county assume the risk that a certificate is forged under any circumstances?
- (c) Should a county, in accepting a digital signature for recording, be automatically and absolutely entitled to rely on the presumptions concerning the digital signatures and certificates otherwise provided in §325K.24 (i.e., should these presumptions be conclusive as to county reliance)?
- (d) Does the county have any responsibility to determine whether any party affected by a digital signature has objected to the use of the digital signature in lieu of an (ink) signature (per Minn. Stat. §325K.19(a)(1)(ii)) before accepting a digitally signed document for recording?

Conclusions and Recommendation: Review and discussion of this item by the Legal Subcommittee is recommended.

19. Arcanvs Patents. Arcanvs, a Utah company, apparently owns two patents (Nos. 5,872,848 and 6,085,322) which, generally said, involve the concept of electronic notarization of an electronic document for the purposes of authenticating an electronic document. It is unclear whether the scope of patent protection afforded by either of these patents would interfere with application of the standards for e-recording currently being considered by the ERERTF.

Conclusions and Recommendation There is consensus that it would be worthwhile for the ERERTF to obtain the legal opinion and advice of a patent attorney with respect to the scope of the Arcanvs patents vis-à-vis e-recording in Minnesota.

Deed

Line #	Name	Parent Element	Element/Attribute	Definition	Required/Optional	Cardinality
1	Root					
2	Document	Root	Element	The root element for the Deed schema.	Required	One
3	Document					
4	Id	Document	Attribute	The ID used when referencing a portion of the document that a person is signing.	Required	One
5	Version	Document	Attribute	The version of the document's schema.	Required	One
6	Header	Document	Element	Contains specific information about the document (eg. Type and subtype, property code, etc.)	Required	One
7	Grantor	Document	Element	Entity giving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple
8	Grantee	Document	Element	Entity receiving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple
9	Property	Document	Element	The information pertaining to the subject property.	Required	Multiple
10	Parties	Document	Element	The parties in the document. (eg. Return To, Drafted By)	Required	One
11	Execution	Document	Element	The information detailing the execution of the document.	Required	One
12	Notary	Document	Element	The information detailing the specifics about the Notary's authorization.	Required	Multiple
13	CountyInformation	Document	Element	The information detailing the specifics about the recording or rejecting of the document (eg. document number, data and time or the reasons for rejecting)	Optional	Multiple
14	EmbeddedFile	Document	Element	The information detailing the files that accompany the document. (eg. the HTML view or the scanned in image of the Well Certificate)	Required	Multiple
15	Header					
16	PropertyCode	Header	Element	The type of the subject property (Abstract or Torrens)	Required	One

17	Code	Header	Element	Abbreviated code of the document.	Required	One
18	Type	Header	Element	Identifies the type of document	Required	One
19	Subtype	Header	Element	Identifies a subtype of the type of the document used to help identify the type of the Grantor. (eg. Individual to Joint Tenants)	Optional	One
20	ReferenceInformation	Header	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple
21	Fee	Header	Element	The breakdown of the type and amount of the fees.	Required	Multiple
22	WellCertificate	Header	Element	The status of the Well Certificate.	Required	One
23	Reference Information					
24	Identifier	Reference Information	Element	The identifier of the value.	Required	Multiple
25	Value	Reference Information	Element	The value representing the identifier	Required	Multiple
26	Comment	Reference Information	Element	Allows a more detailed description about the subject.	Optional	One
27	Fee					
28	ExemptFeeFlag	Fee	Attribute	The indicator that the person or organization was exempt from paying the fee.	Required	One
29	Identifier	Fee	Element	The identifier of the value.	Required	Multiple
30	Value	Fee	Element	The value representing the identifier	Required	Multiple
31	Comment	Fee	Element	Allows a more detailed description about the subject.	Optional	One
32	WellCertificate					
33	Attached	WellCertificate	Element	Indicator if the Well Certificate is attached or not.	Required	One
34	SellersKnowledge	WellCertificate	Element	Indicates the seller's knowledge of the wells on the property.	Required	One
35	Execution					
36	InstrumentDate	Execution	Element	Date of the document.	Required	One
37	County	Execution	Element	The county where the document was notarized.	Required	One
38	State	Execution	Element	The state where the document was notarized	Required	One
39	SignatureDate	Execution	Element	The date the document was signed.	Required	One
40	Grantor					
41	EntityName	Grantor	Element	The information for the names of the respective party.	Required	One
42	Correspondence	Grantor	Element	The information for the address and communication means for the respective party.	Optional	Multiple

43	EntityName					
44	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple
45	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE, JOHN DOE, AS WIFE AND		Multiple
46	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple
47	Organization					
48	Name	Organization	Element	The information about all the different names for an organization.	Required	One
49	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One
50	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
51	Name					
52	PrimaryName	Name	Element	The primary name of an organization.	Required	One
53	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
54	OtherName					
55	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
56	RegulatoryEntity					
57	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
58	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
59	RelatedOrganization					
60	Name	Organization	Element	The information about all the different names for an organization.	Required	One
61	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
62	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
63	Name					

64	PrimaryName	Name	Element	The primary name of an organization.	Required	One
65	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
66	OtherName					
67	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
68	RegulatoryEntity					
69	Identifier		Element	The identifier of the value.	Required	Multiple
70	Value		Element	The value representing the identifier	Required	Multiple
71	IndividualGroup					
72	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One
73	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple
74	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One
75	Name					
76	PrimaryName	Name	Element	The commonly used name for an individual.		One
77	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple
78	PrimaryName					
79	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
80	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple
81	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
82	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
83	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
84	OtherName					
85	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
86	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple
87	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
88	LastName	OtherName	Element	The last name of an individual	Required	Multiple
89	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple

90	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One
91	Capacity					
92	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
93	Value	Capacity	Element	The value representing the identifier	Required	Multiple
94	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
95	Correspondence					
96	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
97	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
98	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
99	Address					
100	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
101	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
102	City	Address	Element	City of the address	Required	One
103	Township	Address	Element	Township of the address	Optional	One
104	County	Address	Element	County of the address	Optional	One
105	State	Address	Element	State of the address	Required	One
106	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
107	Country	Address	Element	Country of the address	Optional	One
104	City					
105	Code	County	Attribute	The assigned code of the city	Optional	One
106	Township					
107	Code	County	Attribute	The assigned code of the township	Optional	One
108	County					
109	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
110	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
111	State					
112	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
113	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
114	Country					
115	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One

116	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
117	Communication					
118	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
119	Value	Communication	Element	The value representing the identifier	Required	Multiple
120	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
121	Grantee					
122	EntityName	Grantee	Element	The information for the names of the respective party.	Required	One
123	Correspondence	Grantee	Element	The information for the address and communication means for the respective party.	Optional	Multiple
124	EntityName					
125	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple
126	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE, JOHN DOE, AS WIFE AND		
127	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple
128	Organization					
129	Name	Organization	Element	The information about all the different names for an organization.	Required	One
130	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
131	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
132	Name					
133	PrimaryName	Name	Element	The primary name of an organization.	Required	One
134	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
135	OtherName					
136	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
137	RegulatoryEntity					

138	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
139	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
140	RelatedOrganization					
141	Name	RelatedOrganization	Element	The information about all the different names for an organization.	Required	One
142	RegulatoryEntity	RelatedOrganization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
143	RelatedOrganization	RelatedOrganization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
144	Name					
145	PrimaryName	Name	Element	The primary name of an organization.	Required	One
146	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
147	OtherName					
148	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
149	RegulatoryEntity					
150	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
151	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
152	Individual Group					
153	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One
154	TenantStatus	Individual Group	Attribute	Indicates how the grantees own the property. Joint Tenants own the whole of the property without any form of separate share or distinction between them. Tenants in Common are regarded in law as having separate and distinct shares.	Required	One
155	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple
156	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One
157	Name					
158	PrimaryName	Name	Element	The commonly used name for an individual.		One

159	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple
160	PrimaryName					
161	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
162	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple
163	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
164	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
165	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
166	OtherName					
167	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
168	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple
169	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
170	LastName	OtherName	Element	The last name of an individual	Required	Multiple
171	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
172	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One
173	Capacity					
174	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
175	Value	Capacity	Element	The value representing the identifier	Required	Multiple
176	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
177	Correspondence					
178	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
179	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
180	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
181	Address					
182	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
183	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
184	City	Address	Element	City of the address	Required	One
185	Township	Address	Element	Township of the address	Optional	One
186	County	Address	Element	County of the address	Optional	One
187	State	Address	Element	State of the address	Required	One
188	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
189	Country	Address	Element	Country of the address	Optional	One

186	City					
187	Code	County	Attribute	The assigned code of the city	Optional	One
188	Township					
189	Code	County	Attribute	The assigned code of the township	Optional	One
190	County					
191	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
192	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
193	State					
194	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
195	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
196	Country					
197	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
198	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
199	Communication					
200	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
201	Value	Communication	Element	The value representing the identifier	Required	Multiple
202	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
203	Property					
204	LegalDescription	Property	Element	Identifies the legal description information for the property.	Required	Multiple
205	PropertyCode	Property	Element	The type of the subject property (eg. Abstract or	Required	One
206	Address	Property	Element	The address of the subject property.	Required	Multiple
207	Legal Description					
208	ParcelIdentificationNumber	LegalDescription	Element	The identification number (commonly referred to as PIN) of the subject property.	Required	Multiple
209	Comment	LegalDescription	Element	Allows a more detailed description about the subject.	Optional	One
210	SurveyType	LegalDescription	Element	The platted and/or unplatted information of the subject property.	Required	One
211	SurveyType					
212	PlattedLand	SurveyType	Element	Platted legal description of subject property.	At least one is required.	Multiple
213	UnplattedLand	SurveyType	Element	Unplatted legal description of subject property.		
214	PlattedLand					

215	Type	PlattedLand	Attribute	Describes the type of platted land survey. (eg. Subdivision, condominium, CIC or RLS)	Required	One
216	Name	PlattedLand	Element	Subdivision name of a platted subdivisions, condominium, CIC or RLS.	Required	One
217	Lot	PlattedLand	Element	Lot unit as shown on Plat on file with county	Optional	One
218	Tract	PlattedLand	Element	Tract Number designated on a Registered Land survey	Optional	One
219	Block	PlattedLand	Element	Block unit as shown on Plat on file with county	Optional	One
220	Code	PlattedLand	Element	A coded identification number assigned to a plat by a county to be used to identify a plat in place of a subdivision name or platbook and page	Optional	One
221	Building	PlattedLand	Element	Building identifier of a buidling in a condominium or timeshare condominium	Optional	One
222	AppurtenanceInformation	PlattedLand	Element	Accessory objects, such as a parking garage, parking psace, storage shed or boat slip	Optional	Multiple
223	Unit	PlattedLand	Element	Unit Identifier or CECT (Common Element Certificate Title) number of a building in a condominium or timeshare condominium.	Optional	One
224	PartOfFlag	PlattedLand	Element	Indicator used to reveal if the property is only part of the platted legal description. The Comment element can be used to further describe the property boudaries.	Required	One
225	OtherLot	PlattedLand	Element	Allows for descriptor of another lot (eg. Parks)	Optional	One
226	Comment	PlattedLand	Element	Allows a more detailed description about the subject.	Optional	One
227	AppurtenanceInformation					
228	Identifier	AppurtenanceInformation	Element	The identifier of the value.	Required	Multiple
229	Value	AppurtenanceInformation	Element	The value representing the identifier	Required	Multiple
230	Comment	AppurtenanceInformation	Element	Allows a more detailed description about the subject.	Optional	One
231	Unplatted Land					
232	Type	UnplattedLand	Attribute	Describes the type of unplatted land survey. (eg. Government Survey or Land)	Required	One

233	Section	UnplattedLand	Element	The Government Survey section in which the property is located, numbered 1 through 36 though some jurisdictions have up to 100 sections	Required	One
234	Township	UnplattedLand	Element	The Government Survey Township coordinate and direction code of Property, e.g. 37N	Required	One
235	Range	UnplattedLand	Element	The Government Survey Range doordinate and direction code of the property, e.g. 12E	Required	One
236	QuarterSection	UnplattedLand	Element	The quarter section in which the property is located. Based on Government Survey system.	Optional	One
237	QuarterQuarterSection	UnplattedLand	Element	The quarter section within the first quarter section in which the property is located. Based on Government Survey system.	Optional	One
238	QuarterQuarterQuarter Section	UnplattedLand	Element	The quarter section within the second quarter section in which the property is located. Based on Government Survey system.	Optional	One
239	QuarterQuarterQuarter QuarterSection	UnplattedLand	Element	The quarter section within the third quarter section in which the property is located. Based on Government Survey system.	Optional	One
240	GovernmentLot	UnplattedLand	Element	An Identifier of an irregular parcel of land.	Optional	One
241	Comment	UnplattedLand	Element	Allows a more detailed description about the subject.	Optional	One
242	Address					
243	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
244	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
245	City	Address	Element	City of the address	Optional	One
246	Township	Address	Element	Township of the address	Optional	One
247	County	Address	Element	County of the address	Required	One
248	State	Address	Element	State of the address	Required	One
249	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
250	Country	Address	Element	Country of the address	Optional	One
251	County					
252	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
253	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
254	State					

255	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
256	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
257	Country					
258	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
259	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
260	Parties					
261	ReturnToParty	Parties	Element	Party where recorded document will eventually be returned to. This may not always be the sumitting party.	Optional	Multiple
262	DraftedOrPreparedByParty	Parties	Element	Party who prepared the document.	Required	Multiple
263	BillToParty	Parties	Element	Party responsible for payment of all fees associated with the recording of the document.	Optional	Multiple
264	SignedByParty	Parties	Element	The information of the people signing the document.	Required	One
265	MailTaxStatementsToParty	Parties	Element	Information about the original mortgagor of the mortgage.	Required	Multiple
266	DraftedOrPreparedByParty					
267	EntityName	DraftedOrPreparedByParty	Element	The information for the names of the respective party.	Required	One
268	Correspondence	DraftedOrPreparedByParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
269	EntityName					
270	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple
271	Individual	EntityName	Element	A person's name and title.		
272	Individual					
273	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
274	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
275	Organization					
276	PrimaryName	Organization	Element	The name of the organization.	Required	One
277	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
278	Individual					
279	PrimaryName	Individual	Element	The unparsed name of the person	Required	One

280	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
281	Correspondence					
282	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
283	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple
284	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
285	Address					
286	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
287	StreetAddress	Address	Element	Street Address of the address	Required	Multiple
288	City	Address	Element	City of the address	Required	One
289	Township	Address	Element	Township of the address	Optional	One
290	County	Address	Element	County of the address	Optional	One
291	State	Address	Element	State of the address	Required	One
292	ZipCode	Address	Element	Zipcode/Zip code of the address	Required	One
293	Country	Address	Element	Country of the address	Optional	One
290	City					
291	Code	County	Attribute	The assigned code of the city	Optional	One
292	Township					
293	Code	County	Attribute	The assigned code of the township	Optional	One
294	County					
295	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
296	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
297	State					
298	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
299	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
300	Country					
301	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
302	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
303	Communication					
304	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
305	Value	Communication	Element	The value representing the identifier	Required	Multiple

306	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
307	ReturnToParty					
308	EntityName	ReturnToParty	Element	The information for the names of the respective party.	Required	One
309	Correspondence	ReturnToParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
310	EntityName					
311	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple
312	Individual	EntityName	Element	A person's name and title.		
313	Individual					
314	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
315	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
316	Organization					
317	PrimaryName	Organization	Element	The name of the organization.	Required	One
318	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
319	Individual					
320	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
321	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
322	Correspondence					
323	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
324	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple
325	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
326	Address					
327	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
328	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
329	City	Address	Element	City of the address	Required	One
330	Township	Address	Element	Township of the address	Optional	One
331	County	Address	Element	County of the address	Optional	One
332	State	Address	Element	State of the address	Required	One
333	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
334	Country	Address	Element	Country of the address	Optional	One
331	City					

332	Code	County	Attribute	The assigned code of the city	Optional	One
333	Township					
334	Code	County	Attribute	The assigned code of the township	Optional	One
335	County					
336	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
337	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
338	State					
339	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
340	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
341	Country					
342	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
343	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
344	Communication					
345	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
346	Value	Communication	Element	The value representing the identifier	Required	Multiple
347	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
348	BillToParty					
349	EntityName	BillToParty	Element	The information for the names of the respective party.	Required	One
350	Correspondence	BillToParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
351	EntityName					
352	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple
353	Individual	EntityName	Element	A person's name and title.		
354	Individual					
355	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
356	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
357	Organization					
358	PrimaryName	Organization	Element	The name of the organization.	Required	One
359	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
360	Individual					

361	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
362	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
363	Correspondence					
364	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
365	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple
366	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
367	Address					
368	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
369	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
370	City	Address	Element	City of the address	Required	One
371	Township	Address	Element	Township of the address	Optional	One
372	County	Address	Element	County of the address	Optional	One
373	State	Address	Element	State of the address	Required	One
374	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
375	Country	Address	Element	Country of the address	Optional	One
372	City					
373	Code	County	Attribute	The assigned code of the city	Optional	One
374	Township					
375	Code	County	Attribute	The assigned code of the township	Optional	One
376	County					
377	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
378	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
379	State					
380	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
381	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
382	Country					
383	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
384	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
385	Communication					
386	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
387	Value	Communication	Element	The value representing the identifier	Required	Multiple

388	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
389	SignedByParty					
390	Id	SignedByParty	Attribute	The ID referenced when notarizing or witnessing a signature or group of signatures.	Required	One
391	SigningEntityGroup	SignedByParty	Element	Groups the individuals that are signing the document for the same purpose (ie. endorser, witness)	Required	Multiple
392	SigningEntityGroup					
393	Type	SigningEntityGroup	Attribute	The type of the group of signatures. (eg. "Endorser" or "Witness")	Required	Multiple
394	Id	SigningEntityGroup	Attribute	The ID reference when witnessing or notarizing a signature or group of signatures.	Required	Multiple
395	SigningEntity	SigningEntityGroup	Element	The entity(s) that are signing the document.	Required	Multiple
396	SigningEntity					
397	EntityName	SigningEntity	Element	The information for the names of the respective party.	Required	
398	Correspondence	SigningEntity	Element	The information for the address and communication means for the respective party.	Optional	Multiple
399	EntityName					
400	Organization	EntityName	Element	The name of the organization and its signing representative(s).	Choice of Organization or Individual	Multiple
401	Individual	EntityName	Element	The person's name and title for signing purposes.		Multiple
402	Organization					
403	Name	Organization	Element	The information about all the different names for an organization.	Optional	One
404	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One
405	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
406	Seal	Organization	Element	The seal of the person or organization signing.	Optional	One
407	Individual	Organization	Element	The information about the person who is signing the document for the organization. (eg. JANE DOE, OPERATIONS OFFICER)	Required	Multiple
408	Name					

409	PrimaryName	Name	Element	The primary name of an organization.	Required	One
410	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
411	OtherName					
412	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
413	RegulatoryEntity					
414	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
415	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
416	RelatedOrganization					
417	Name	Organization	Element	The information about all the different names for an organization.	Required	One
418	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
419	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
420	Name					
421	PrimaryName	Name	Element	The primary name of an organization.	Required	One
422	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
423	OtherName					
424	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
425	RegulatoryEntity					
426	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
427	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
428	Individual					
429	PrimaryName	Individual	Element	The information about the person who is signing	Required	One
430	Title	Individual	Element	The title of the person. (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
431	Signature	Individual	Element	Information detailing the signature of the person.	Required	One
432	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One
433	PrimaryName					
434	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One

435	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
436	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
437	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
438	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
439	Individual					
440	Name	Individual	Element	The unparsed name of the person	Required	One
441	Capacity	Individual	Element	The capacity of the person (eg. Guardian, trustee)	Optional	One
442	Signature	Individual	Element	Information detailing the signature of the person.	Required	One
443	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One
444	Name					
445	PrimaryName	Name	Element	The commonly used name for an individual.	Required	One
446	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)	Optional	Multiple
447	PrimaryName					
448	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
449	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
450	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
451	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
452	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
453	OtherName					
454	Type	OtherName	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
455	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
456	FirstName	OtherName	Element	The first name of an individual	Required	Multiple
457	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
458	LastName	OtherName	Element	The last name of an individual	Required	Multiple
459	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
460	Capacity					
461	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
462	Value	Capacity	Element	The value representing the identifier	Required	Multiple
463	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
464	Address					

465	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
466	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
467	City	Address	Element	City of the address	Required	One
468	Township	Address	Element	Township of the address	Optional	One
469	County	Address	Element	County of the address	Optional	One
470	State	Address	Element	State of the address	Required	One
471	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
472	Country	Address	Element	Country of the address	Optional	One
469	City					
470	Code	County	Attribute	The assigned code of the city	Optional	One
471	Township					
472	Code	County	Attribute	The assigned code of the township	Optional	One
473	County					
474	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
475	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
476	State					
477	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
478	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
479	Country					
480	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
481	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
482	Communication					
483	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
484	Value	Communication	Element	The value representing the identifier	Required	Multiple
485	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
486	MailTaxStatementsToParty					
487	EntityName	MailTaxStatementsToParty	Element	The information for the names of the respective party.	Required	One
488	Correspondence	MailTaxStatementsToParty	Element	The information for the address and communication means for the respective party.	Required	Multiple
489	EntityName					
490	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple

491	Individual	EntityName	Element	A person's name and title.		
492	Individual					
493	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
494	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
495	Organization					
496	PrimaryName	Organization	Element	The name of the organization.	Required	One
497	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
498	Individual					
499	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
500	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
501	Correspondence					
502	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
503	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple
504	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
505	Address					
506	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
507	StreetAddress	Address	Element	Street Address of the address	Required	Multiple
508	City	Address	Element	City of the address	Required	One
509	Township	Address	Element	Township of the address	Optional	One
510	County	Address	Element	County of the address	Optional	One
511	State	Address	Element	State of the address	Required	One
512	ZipCode	Address	Element	Zipcode/Zip code of the address	Required	One
513	Country	Address	Element	Country of the address	Optional	One
510	City					
511	Code	County	Attribute	The assigned code of the city	Optional	One
512	Township					
513	Code	County	Attribute	The assigned code of the township	Optional	One
514	County					
515	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
516	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
517	State					
518	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One

519	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
520	Country					
521	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
522	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
523	Communication					
524	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
525	Value	Communication	Element	The value representing the identifier	Required	Multiple
526	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
527	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
528	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
529	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
530	Notary					
531	PrimaryName	Notary	Element	Name of the notary.	Required	One
532	Title	Notary	Element	Title of the notary, or official e.g. Notary Public	Required	One
533	CommissionNumber	Notary	Element	Commission Number assigned to Notary by Authorizing Agency (usually Secretary of State)	Optional	One
534	CommissionExpirationDate	Notary	Element	Expiration date of Notary Commission if the PerpetualFlag = 'False'. If the PerpetualFlag = 'True', then date is set to infinity (9999-12-31) to represent the county official's perpetual end date.	Required	One
535	CommissionState	Notary	Element	State in which the Notary is commissioned	Required	One
536	CommissionCounty	Notary	Element	County in which the Notary is commissioned	Optional	One
537	CommissionCountry	Notary	Element	Country in which the Notary is commissioned	Optional	One
538	Seal	Notary	Element	The seal of the person signing.	Optional	One
539	Signature	Notary	Element	Information detailing the signature of the person.	Required	One
540	CommissionExpirationDate					
541	PerpetualFlag	CommissionExpirationDate	Attribute	Identifies if the commission is perpetual or not. (eg. a person working in the county office would be authorized as long as they are an employee). A notary would not a perpetual commission since they have a commission expiration date.	Required	One

542	PrimaryName					
543	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
544	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
545	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
546	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
547	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
548	CountyInformation					
549	RecordingEndorsement	CountyInformation	Element	The information about the recording of the document and the fees associated with the recording.	Choice of RecordingEndorsement or Rejection	Multiple
550	Rejection	CountyInformation	Element	Information detailing the specifics about the rejection of the document.		
551	RecordingEndorsement					
552	RecordedInformation	RecordingEndorsement	Element	The information about the recording of the document.	Required	Multiple
553	Fees	RecordingEndorsement	Element	The fees associated with the recording of the document.	Required	Multiple
554	RecordedInformation					
555	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One
556	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One
557	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One
558	CertificateOfTitle Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One
559	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One
560	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One
561	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One
562	RecordedDateAndOrTime	RecordedInformation	Element	The recorded date and time of the document	Required	One
563	Officer	RecordedInformation	Element	Identifies the name of the person signing the document authorizing that it has been recorded.	Required	Multiple
564	BookOrVolumeInformation					

565	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One
566	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One
567	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One
568	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One
569	Officer					
570	PrimaryName	Officer	Element	The unparsed name of the person	Required	One
571	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
572	Signature	Officer	Element	Information detailing the signature of the person.	Required	One
573	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One
574	PrimaryName					
575	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
576	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
577	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
578	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
579	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
580	Fees					
581	TotalAmount	Fees	Element	The total of all the fees involved in the recording for this office.	Required	One
582	ProcessingInformation	Fees	Element	The information about the processing of the fees.	Required	One
583	Fee	Fees	Element	The breakdown of the type and amount of the fees.	Required	Multiple
584	ProcessingInformation					
585	Number	ProcessingInformation	Element	The individual's prefix	Optional	One
586	Officer	ProcessingInformation	Element	Identifies the name of the person signing the document authorizing for a specific reason in an office.	Optional	Multiple
587	DateTime	ProcessingInformation	Element	The individual's last name	Optional	One
588	Office	ProcessingInformation	Element	The office that is processing the fees (eg. Recorder, Auditor, Treasurer, etc.)	Required	One
589	AncillaryDocument	ProcessingInformation	Element	The status of the ancillary documents that are associated with the deed.	Optional	Multiple
590	Officer					

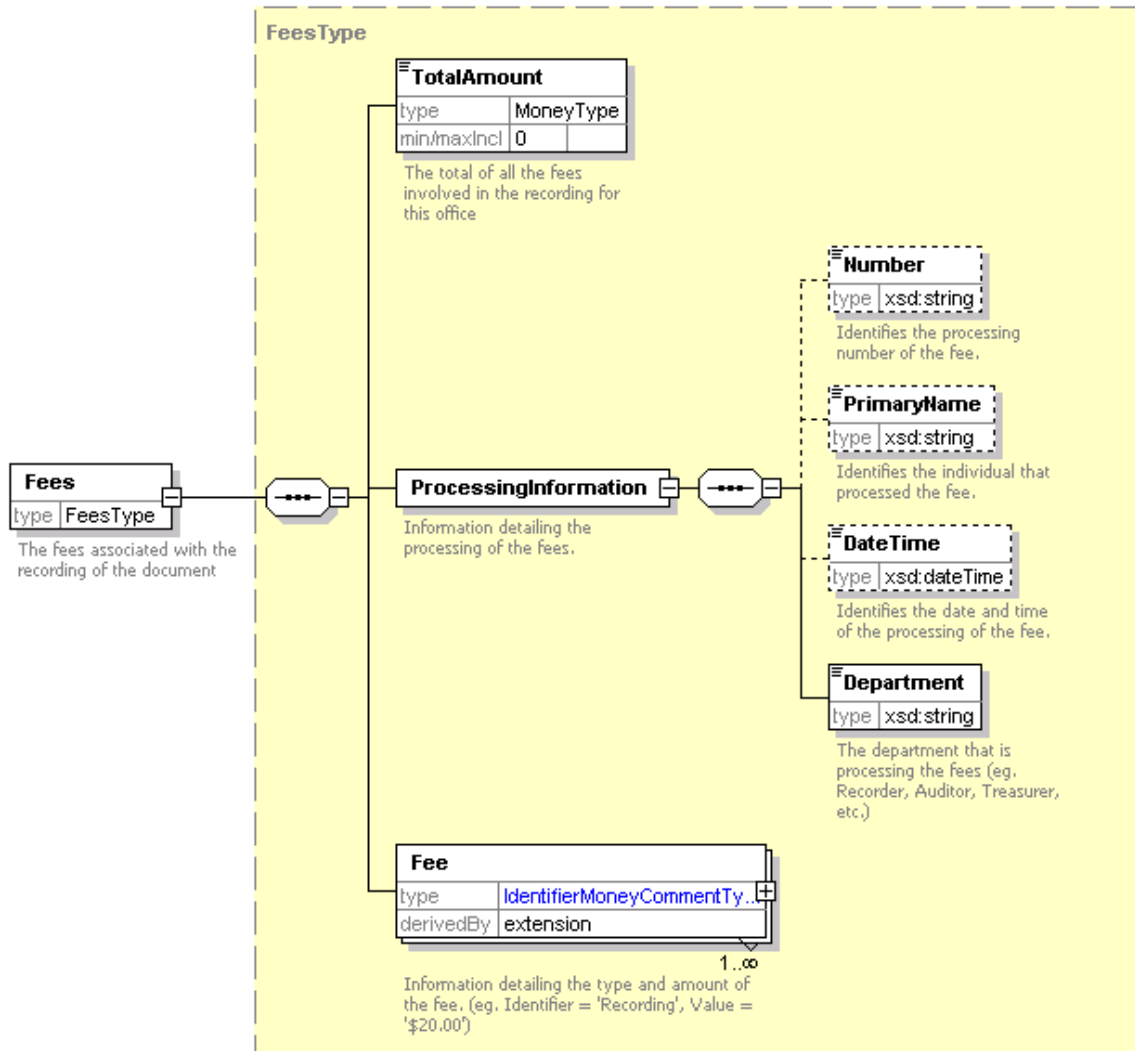
591	PrimaryName	Officer	Element	The unparsed name of the person	Required	One
592	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
593	Signature	Officer	Element	Information detailing the signature of the person.	Required	One
594	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One
595	PrimaryName					
596	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
597	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
598	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
599	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
600	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
601	AncillaryDocument					
602	Type	AncillaryDocument	Attribute	The type of ancillary document (eg. ISTS)	Required	One
603	Attached	AncillaryDocument	Element	Indicator if the document accompanied the deed or not.	Required	One
604	Filed	AncillaryDocument	Element	Indicator if the document was filed if it accompanied the deed.	Required	One
605	Fee					
606	ExemptFeeFlag	Fee	Attribute	The indicator that the person or organization was exempt from paying the fee.	Required	One
607	Identifier	Fee	Element	The identifier of the value.	Required	Multiple
608	Value	Fee	Element	The value representing the identifier	Required	Multiple
609	Comment	Fee	Element	Allows a more detailed description about the subject.	Optional	One
610	Rejection					
611	County	Rejection	Element	The county that rejected the document	Required	One
612	State	Rejection	Element	The state that rejected the document.	Required	One
613	RejectInformation	Rejection	Element	The details about the reject information.	Required	Multiple
614	RejectInformation					
615	Office	RejectInformation	Element	The Office (County Recorder, Registrar of Titles, Auditor, etc.) that the document was rejected in	Required	One
616	Officer	RejectInformation	Element	The Officer that the document was rejected by	Optional	One
617	Date and Time	RejectInformation	Element	The date and time that the document was rejected	Optional	One

618	Reason	RejectInformation	Element	The reason(s) why the document was rejected. (eg. Identifier = '010', Value = 'wrong county')	Required	Multiple
619	Officer					
620	PrimaryName	Officer	Element	The unparsed name of the person	Optional	One
621	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
622	Reason					
623	Identifier	Reason	Element	The identifier of the value.	Optional	Multiple
624	Value	Reason	Element	The value representing the identifier	Required	Multiple
625	Comment	Reason	Element	Allows a more detailed description about the subject.	Optional	One
626	EmbeddedFile					
627	Type	EmbeddedFile	Attribute	The type of file that is being attached.	Required	One
628	FileType	EmbeddedFile	Attribute	In addition to the MIME Type, identifies the program or application used to create the embedded file (i.e. Adobe Acrobat)	Optional	One
629	Name	EmbeddedFile	Attribute	Identifies the name of the embedded file (i.e. Deed.pdf)	Optional	One
630	Extension	EmbeddedFile	Attribute	Identifies the extension used to identify the embedded file (i.e. PDF, ZIP, HTML)	Optional	One
631	Description	EmbeddedFile	Attribute	Provides additional information about the embedded file.	Optional	One
632	MimeType	EmbeddedFile	Attribute	Indicates the Multipurpose Internet Mail Extensions type of the data in the document. A registered list of these types may be downloaded via ftp from: ftp.isi.edu/in-notes/iana/assignments/media-types/media-types. See http://www.isi.edu/in-notes/iana/assignments/media-types/media-types	Required	One
633	Encoded	EmbeddedFile	Attribute	Indicates if the file has been encoded.	Required	One
634	EncodingType	EmbeddedFile	Attribute	Specifies the type of encoding used on the embedded file (i.e. Base64)	Optional	One
635	Version	EmbeddedFile	Attribute	Identifies additional version information about the embedded file.	Optional	One

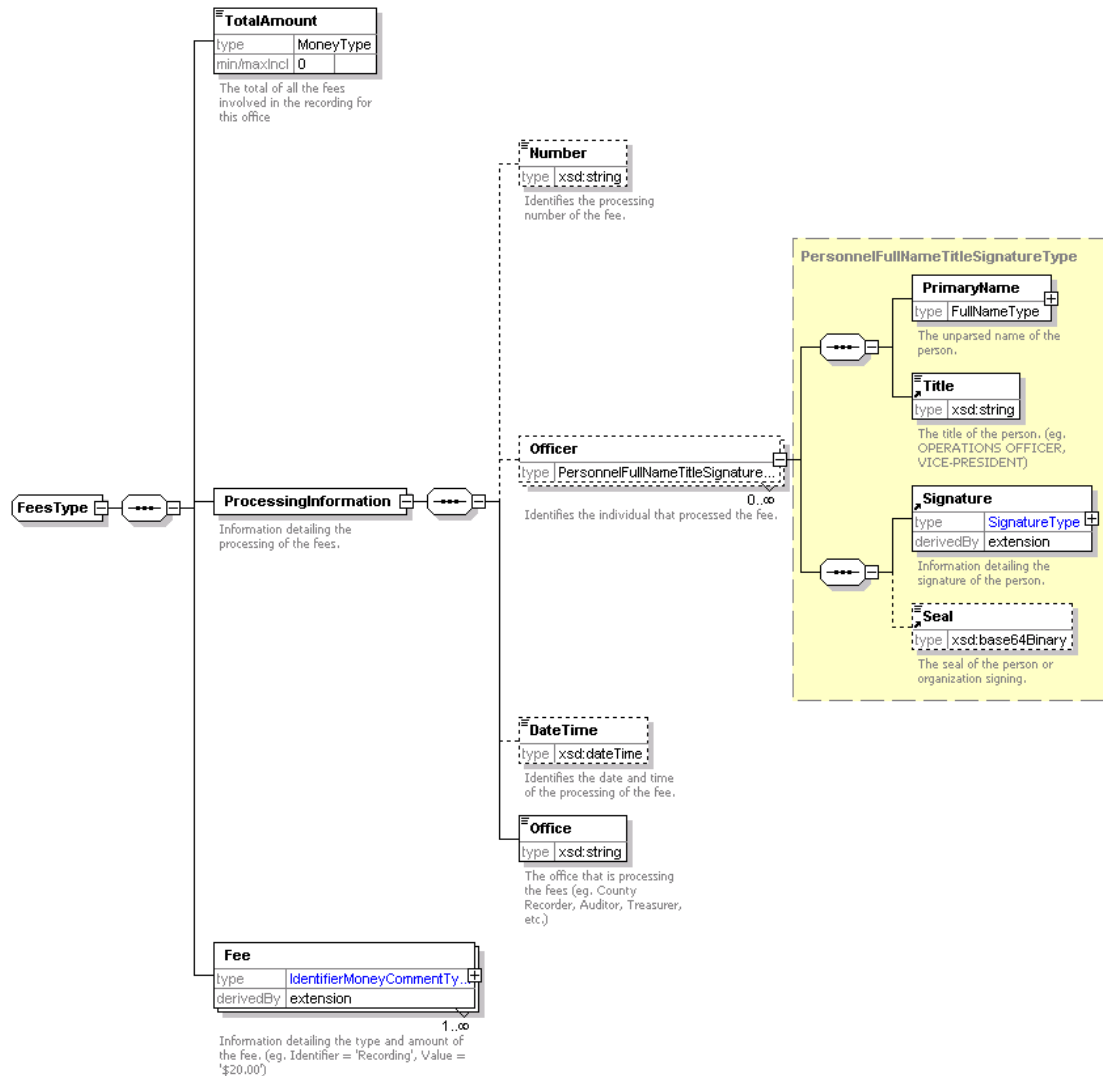
Proposed changes to Satisfaction and Certificate of Release Version 1.0 Schemas:

1. Fees Schema change:

a. Current Fees Schema:



b. Proposed Fees Schema



Generated with XMLSpy Schema Editor www.xmlspy.com

Changes:

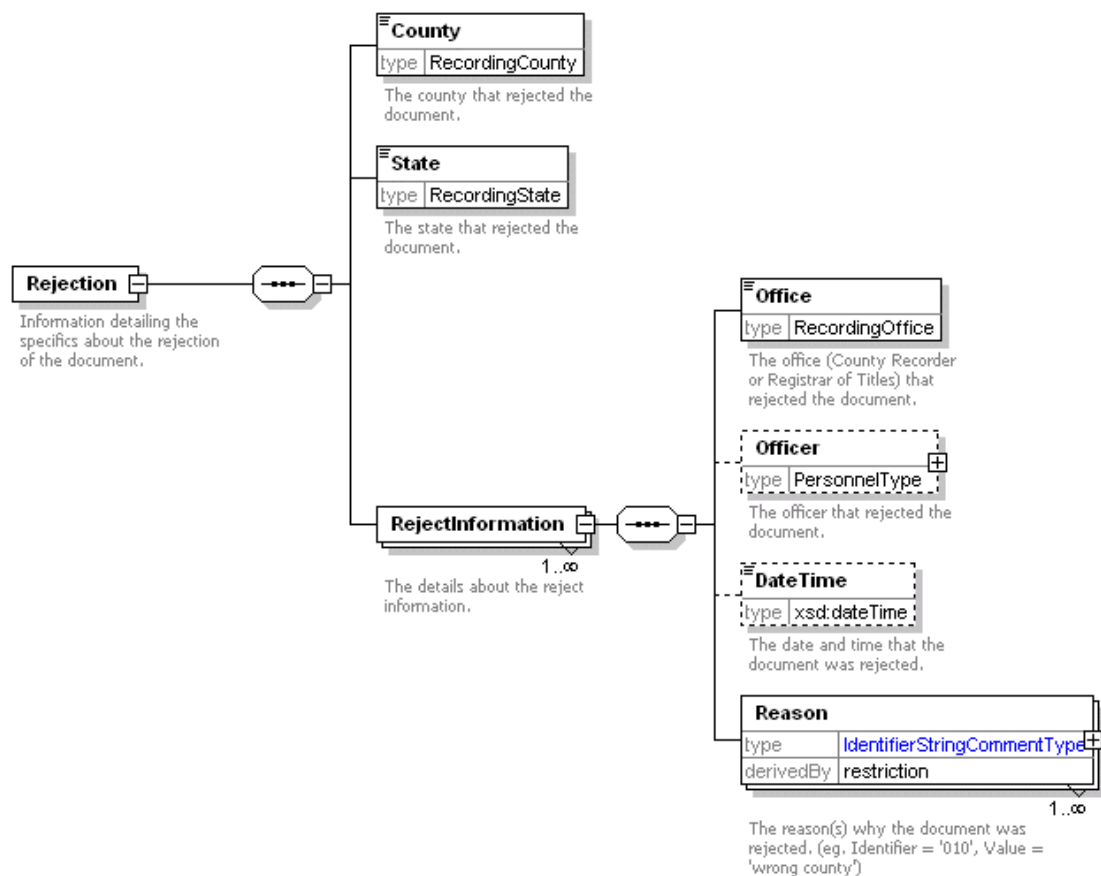
1. Changed “Department” element name to “Office”
 - a. This makes it consistent with the RejectInformation Office element and RecordingInformation Office element.
2. Replaced “Primary Name” element in the ProcessingInformation element with “Officer” element and allowed for multiple occurrences
 - a. This allows for the auditor and treasurer to attach their signature. In the current version, only a name is allowed, no title or signature. The auditor and treasurer would use this element when adding their information for the document.

- b. Changing it to multiple allows for multiple signers within one office (for example: the auditor and deputy signs for the auditor's office)

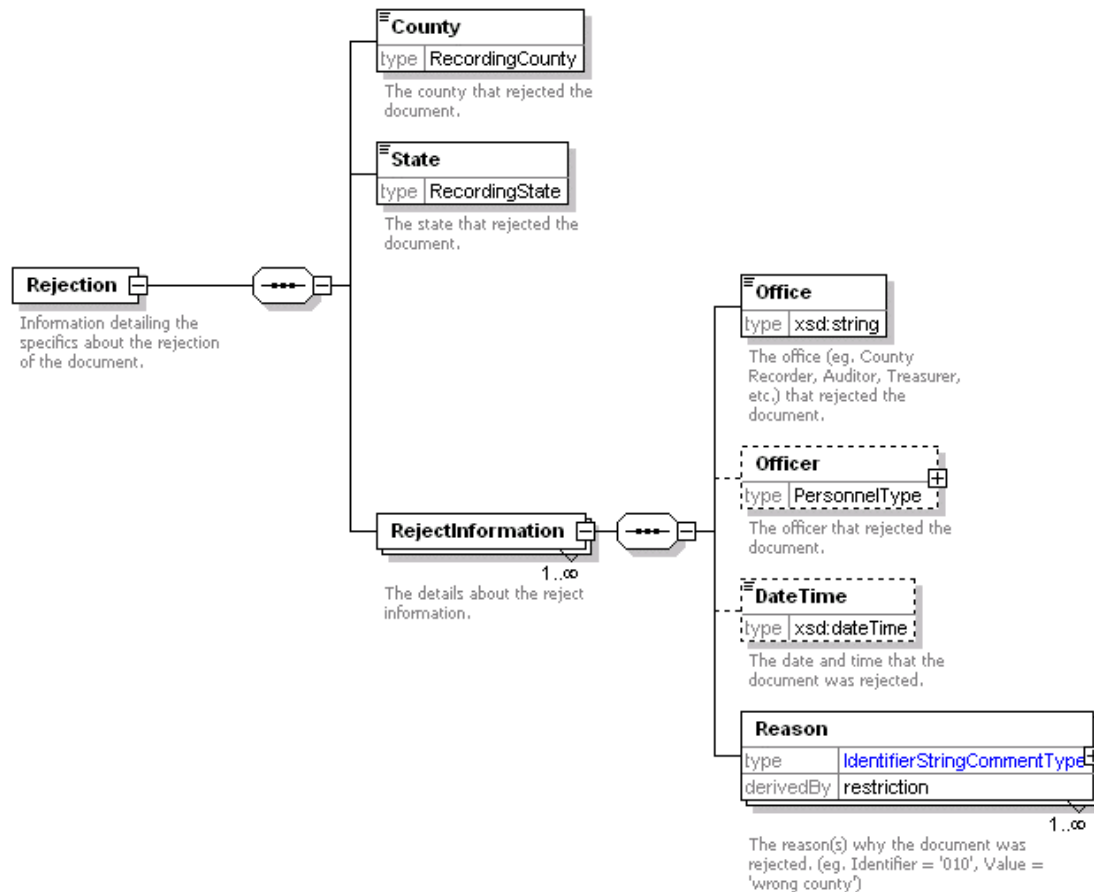
2. RejectInformation schema change

- 1. Change the Officer datatype from RecordingCounty to xsd:string
 - a. RecordingCounty only allowed "County Recorder" or "Registrar of Titles" and this allows for any office. (for example: "Treasurer" and "Auditor")

Current:



Proposed:



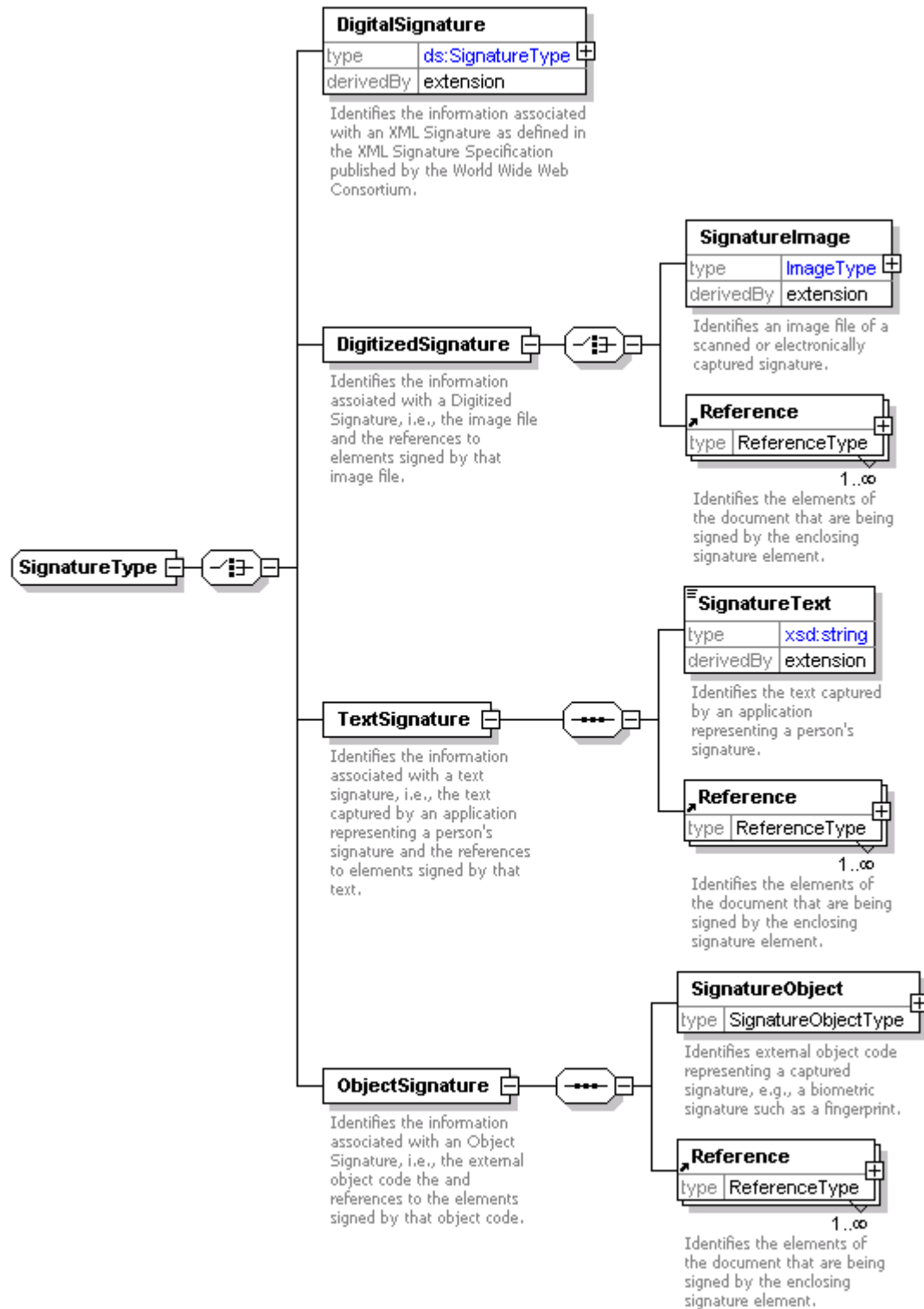
Generated with XMLSpy Schema Editor www.xmlspy.com

The above changes only affect the county code, not the submitter code. These changes were made to support the Deed Schema, but should be the same for all schemas. If the change is not made for the Satisfaction and Certificate of Release Schemas, then the county would have to support two pieces of code instead of one.

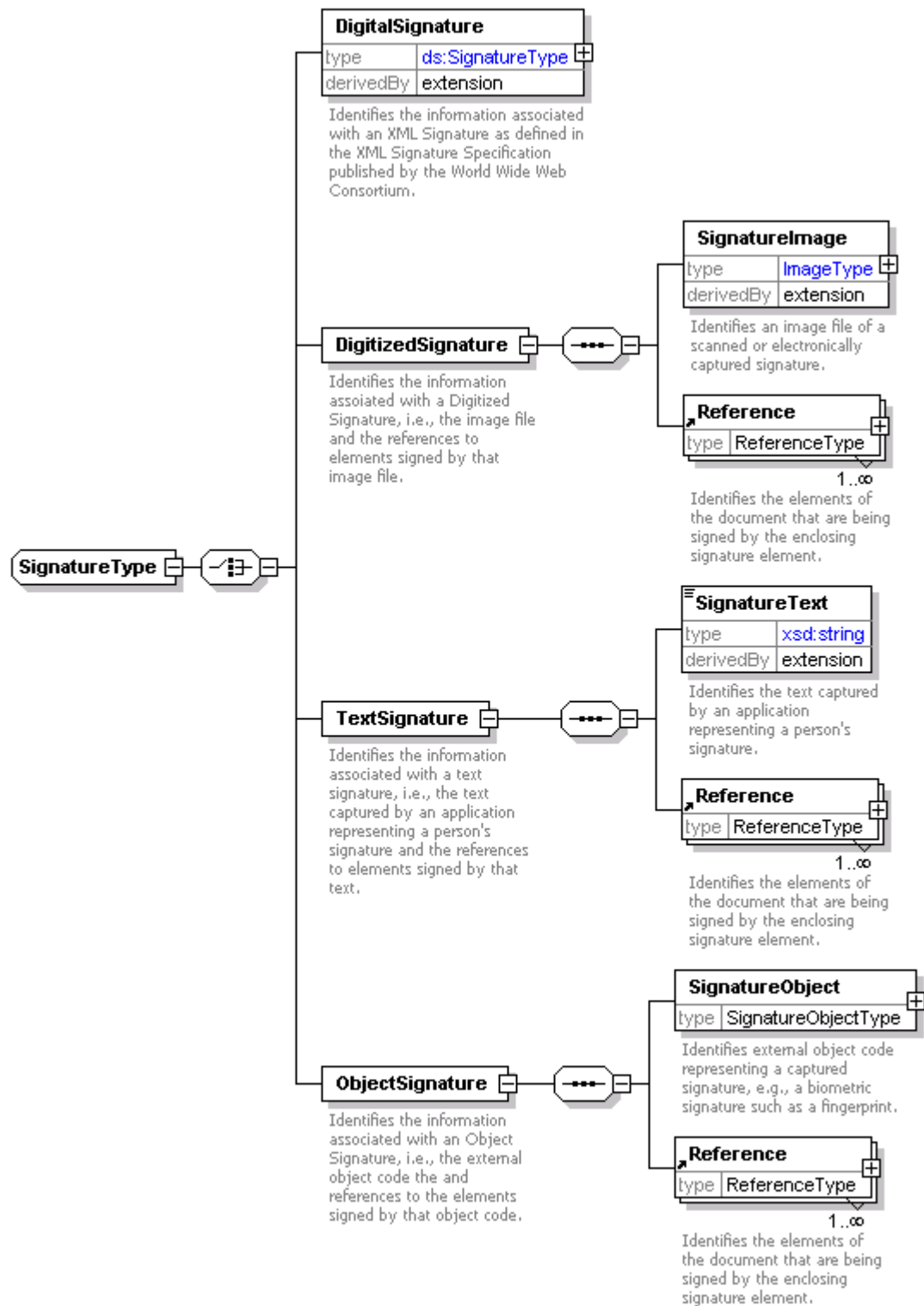
3. Signature Schema change

1. Changed the model on the DigitizedSignature from “Choice” to “Sequence” to allow for the SignatureImage **and** Reference elements to be populated instead of one or the other
 - a. This makes it consistent for the rest of the signature types (Text and Object)

Current:



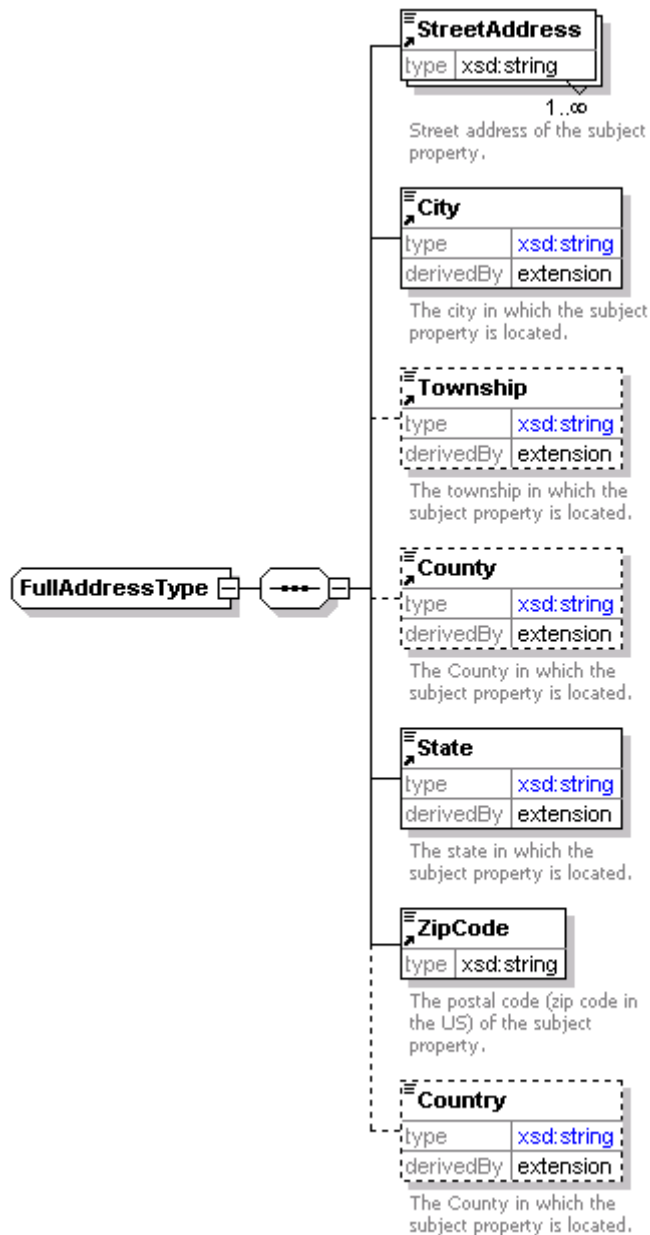
Proposed:



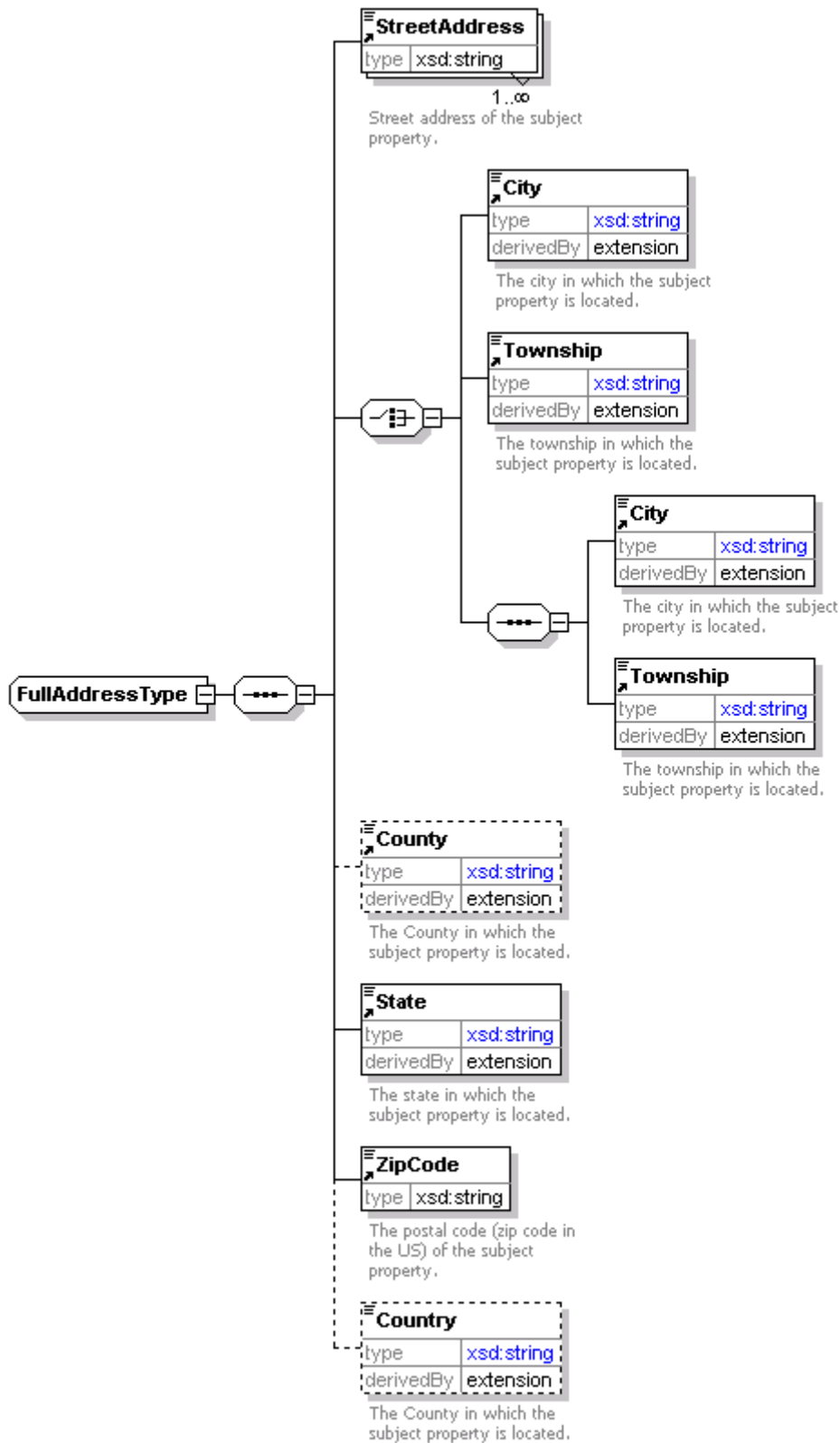
This change affects the submitter if they were using digitized signatures.

3. Address Schema change. Currently, if an address is required, then City is required to be entered. If the address is a Township, not a City, then Township should be required. To accommodate this, a change in the address schema would make these a choice of City or Township or City and Township.

Current:



Proposed:



This change does not affect anyone that has currently implemented the Satisfaction or Certificate of Release schema.

4. New value for Relationship Status of an individual (or group of individuals) for the Mortgagor on the Satisfaction and Certificate of Release:
 - a. Currently we have three statuses: “as husband and wife”, “as wife and husband” and “a single person”
 - b. A request has been made to add “a married person” to this list

This change will only affect the submitter and allowing electronic processing of the documents that contain this status. Currently, these documents still have to be manually processed.

Certificate of Release

Version 2.0							Version 1.1			
Line #	Name	Parent Element	Element/Attribute	Definition	Required/Optional	Cardinality	Name	Parent Element	Element/Attribute	Change
1	Root									
2	Document	Root	Element	The root element for the Certificate of Release schema.	Required	One	PRIA_DOCUMENT	DOCUMENT_RECORDATION	Element	Renamed element, made Document Root element instead of DOCUMENT_RECORDATION
3	Document									
4	Id	Document	Attribute	The ID used when referencing a portion of the document that a person is signing.	Required	One	_MN_PRIADocumentID	Extension from PRIA_DOCUMENT	Attribute	moved to attribute on Document
5	Version	Document	Attribute	The version of the document's schema.	Required	One	_PRIAVersion	PRIA_DOCUMENT	Attribute	Renamed attribute
6	Header	Document	Element	Contains specific information about the document (eg. Type and subtype, property code, etc.)	Required	One	N/A			Added element
7	Grantor	Document	Element	Entity giving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple	GRANTOR	PRIA_DOCUMENT	Element	Renamed element
8	Grantee	Document	Element	Entity receiving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple	GRANTEE	PRIA_DOCUMENT	Element	Renamed element
9	Property	Document	Element	The information pertaining to the subject property.	Optional	Multiple	PROPERTY	PRIA_DOCUMENT	Element	Renamed element
10	Parties	Document	Element	The parties in the document. (eg. Return To, Drafted By)	Required	One	PARTIES	PRIA_DOCUMENT	Element	Renamed element
11	Execution	Document	Element	The information detailing the execution of the document.	Required	One	EXECUTION	PRIA_DOCUMENT	Element	Renamed element
12	RecordedDocument	Document	Element	The information about the recorded reference documents. (eg. the previously recorded Mortgage document that is being satisfied.)	Required	Multiple	RECORDED_DOCUMENT	PRIA_DOCUMENT	Element	Renamed element
13	Notary	Document	Element	The information detailing the specifics about the Notary's authorization.	Required	Multiple	NOTARY	PRIA_DOCUMENT	Element	Renamed element
14	CountyInformation	Document	Element	The information detailing the specifics about the recording or rejecting of the document (eg. document number, data and time or the reasons for rejecting)	Optional	Multiple	RECORDING_ENDORSEMENT	PRIA_DOCUMENT	Element	Renamed element
15	EmbeddedFile	Document	Element	The information detailing the files that accompany the document. (eg. the HTML view or the scanned in image of the Well Certificate)	Required	Multiple	EMBEDDED_FILE_MN_VIEW	PRIA_DOCUMENT extension to RECORDING_ENDORSEMENT	Element Element	Renamed element Renamed and restructed element
16	Header									
17	PropertyCode	Header	Element	The type of the subject property (Abstract or Torrens)	Required	One	_MN_PropertyCode	Extension from PRIA_DOCUMENT	Attribute	created element
18	Code	Header	Element	Abbreviated code of the document.	Required	One	_Code	PRIA_DOCUMENT	Attribute	created element
19	Type	Header	Element	Identifies the type of document	Required	One	_Type	PRIA_DOCUMENT	Attribute	created element
20	Subtype	Header	Element	Identifies a subtype of the type of the document used to help identify the type of the Grantor. (eg. by Individual, by Corporation or Parnership)	Optional	One	MN_SubType	Extension from PRIA_DOCUMENT	Attribute	created element

21	ReferenceInformation	Header	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple	_MN_REFERENCE	Extension from PRIA_DOCUMENT	Element	renamed and moved
22	Reference Information									
23	Identifier	Reference Information	Element	The identifier of the value.	Required	Multiple	_MN_Type	_MN_REFERENCE	Attribute	renamed and moved to element
24	Value	Reference Information	Element	The value representing the identifier	Required	Multiple	_MN_VALUE	_MN_REFERENCE	Attribute	renamed and moved to element
25	Comment	Reference Information	Element	Allows a more detailed description about the subject.	Optional	One	N/A			created element
26	Execution									
27	InstrumentDate	Execution	Element	Date of the document.	Required	One	_Date	EXECUTION	Attribute	renamed and moved to element
28	County	Execution	Element	The county where the document was notarized.	Required	One	_County	EXECUTION	Attribute	renamed and moved to element
29	State	Execution	Element	The state where the document was notarized	Required	One	_State	EXECUTION	Attribute	renamed and moved to element
30	SignatureDate	Execution	Element	The date the document was signed.	Required	One	_SignatureDate	PRIA_SIGNATURE	Attribute	renamed and moved to element
31	Grantor									
32	EntityName	Grantor	Element	The information for the names of the respective party.	Required	One				
33	Correspondence	Grantor	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
34	EntityName									
35	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
36	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple				
37	Organization									
38	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_NAME_GROUP	extension to GRANTOR	Element	renamed and restructured
39	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One				
40	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
41	Name									
42	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_NAME_GROUP	Attribute	renamed and moved to element
43	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS _MN_OrganizationName	_MN_NAME_GROUP _MN_ALIAS	Element Attribute	renamed renamed and moved to element
44	OtherName									
45	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
46	RegulatoryEntity									

47	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple	_MN_SignatoryEntityType	extension of PRIA_SIGNATURES	Attribute	renamed
48	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple	_MN_SignatoryOrganizedUnderTheLawsOfJurisdictionName	extension attribute of PRIA_SIGNATURES	Attribute	renamed
49	RelatedOrganization									
50	RelatedRole	Organization	Attribute	The information defining the relationship between the two entities.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
51	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element
52	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
53	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
54	Name									
55	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
56	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
57	OtherName									
58	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
59	RegulatoryEntity									
60	Identifier		Element	The identifier of the value.	Required	Multiple				
61	Value		Element	The value representing the identifier	Required	Multiple				
62	IndividualGroup									
63	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One	_MN_RelationshipStatus	extension from GRANTOR	Attribute	renamed and moved
64	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
65	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
66	Name									
67	PrimaryName	Name	Element	The commonly used name for an individual.		One	_MN_NAME_GROUP	extension from GRANTOR	Element	renamed and restructured
68	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple	_MN_ALIAS	_MN_NAME_GROUP	Element	renamed and restructured
69	PrimaryName									
70	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_NAME_GROUP	Attribute	renamed and moved to element
71	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_NAME_GROUP	Attribute	renamed and moved to element
72	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_NAME_GROUP	Attribute	renamed and moved to element
73	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_NAME_GROUP	Attribute	renamed and moved to element
74	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_NAME_GROUP	Attribute	renamed and moved to element
75	OtherName									
76	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_ALIAS	Attribute	renamed and moved to element

77	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_ALIAS	Attribute	renamed and moved to element
78	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_ALIAS	Attribute	renamed and moved to element
79	LastName	OtherName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_ALIAS	Attribute	renamed and moved to element
80	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_ALIAS	Attribute	renamed and moved to element
81	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
82	Capacity									
83	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple	_Capacity	GRANTOR	Attribute	renamed and moved to element
84	Value	Capacity	Element	The value representing the identifier	Required	Multiple	_MN_CapacityComment	extension from GRANTOR	Attribute	renamed and moved to element
85	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
86	Correspondence									
87	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
88	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
89	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple	_MN_COMMUNICATION	extension from GRANTOR	Element	renamed
90	Address									
91	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
92	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_MN_StreetAddress _MN_StreetAddress2	extension from GRANTOR	Attribute	renamed, restructured and moved to element
93	City	Address	Element	City of the address	Required	One	_MN_City	extension from GRANTOR	Attribute	renamed and moved to element
94	Township	Address	Element	Township of the address	Optional	One				
95	County	Address	Element	County of the address	Optional	One	_MN_County	extension from GRANTOR	Attribute	renamed and moved to element
96	State	Address	Element	State of the address	Required	One	_MN_State	extension from GRANTOR	Attribute	renamed and moved to element
97	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_MN_PostalCode	extension from GRANTOR	Attribute	renamed and moved to element
98	Country	Address	Element	Country of the address	Optional	One	_MN_Country	extension from GRANTOR	Attribute	renamed and moved to element
99	City									
100	Code	City	Attribute	The assigned code of the city	Optional	One				
101	Township									
102	Code	Township	Attribute	The assigned code of the township	Optional	One				
103	County									
104	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
105	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_CountyFIPSCode	extension from GRANTOR	Attribute	renamed and moved
106	State									
107	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
108	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_StateFIPSCode	extension from GRANTOR	Attribute	renamed and moved
109	Country									
110	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_MN_CountryCode	extension from GRANTOR	Attribute	renamed and moved

111	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
112	Communication									
113	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_MN_Method	_MN_COMMUNICATION	Attribute	renamed and moved to element
114	Value	Communication	Element	The value representing the identifier	Required	Multiple	_MN_ContactPhoneNumber_MN_Code	extension from GRANTOR_MN_COMMUNICATION	Attribute Attribute	renamed and restructured renamed and moved to element
115	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
116	Grantee									
117	EntityName	Grantee	Element	The information for the names of the respective party.	Required	One				
118	Correspondence	Grantee	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
119	EntityName									
120	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
121	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE, JOHN DOE, JOE DOE, AD WIFE AND CHILDREN)						
122	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
123	Organization									
124	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_NAME_GROUP	extension to GRANTOR	Element	renamed and restructured
125	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
126	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
127	Name									
128	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_NAME_GROUP	Attribute	renamed and moved to element
129	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS_MN_OrganizationName	_MN_NAME_GROUP_MN_ALIAS	Element Attribute	renamed renamed and moved to element
130	OtherName									
131	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
132	RegulatoryEntity									
133	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple	_MN_SignatoryEntityType	extension of PRIA_SIGNATURES	Attribute	renamed
134	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple	_MN_SignatoryOrganizedUnderTheLawsOfJurisdictionName	extension attribute of PRIA_SIGNATURES	Attribute	renamed
135	RelatedOrganization									
136	RelatedRole	RelatedOrganization	Attribute	The information about all the relationship between organizations.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
137	Name	RelatedOrganization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element

138	RegulatoryEntity	RelatedOrganization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
139	RelatedOrganization	RelatedOrganization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
140	Name									
141	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
142	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
143	OtherName									
144	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
145	RegulatoryEntity									
146	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
147	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
148	IndividualGroup									
149	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One	_MN_RelationshipStatus	extension from GRANTOR	Attribute	renamed and moved
150	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
151	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
152	Name									
153	PrimaryName	Name	Element	The commonly used name for an individual.		One	_MN_NAME_GROUP	extension from GRANTOR	Element	renamed and restructured
154	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple	_MN_ALIAS	_MN_NAME_GROUP	Element	renamed and restructured
155	PrimaryName									
156	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_NAME_GROUP	Attribute	renamed and moved to element
157	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_NAME_GROUP	Attribute	renamed and moved to element
158	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_NAME_GROUP	Attribute	renamed and moved to element
159	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_NAME_GROUP	Attribute	renamed and moved to element
160	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_NAME_GROUP	Attribute	renamed and moved to element
161	OtherName									
162	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_ALIAS	Attribute	renamed and moved to element
163	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_ALIAS	Attribute	renamed and moved to element
164	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_ALIAS	Attribute	renamed and moved to element
165	LastName	OtherName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_ALIAS	Attribute	renamed and moved to element
166	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_ALIAS	Attribute	renamed and moved to element
167	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed

168	Capacity									
169	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple	_Capacity	GRANTOR	Attribute	renamed and moved to element
170	Value	Capacity	Element	The value representing the identifier	Required	Multiple	_MN_CapacityComment	extension from GRANTOR	Attribute	renamed and moved to element
171	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
172	Correspondence									
173	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
174	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
175	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple	_MN_COMMUNICATION	extension from GRANTOR	Element	renamed
176	Address									
177	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
178	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_MN_StreetAddress _MN_StreetAddress2	extension from GRANTOR	Attribute	renamed, restructured and moved to element
179	City	Address	Element	City of the address	Required	One	_MN_City	extension from GRANTOR	Attribute	renamed and moved to element
180	Township	Address	Element	Township of the address	Optional	One				
181	County	Address	Element	County of the address	Optional	One	_MN_County	extension from GRANTOR	Attribute	renamed and moved to element
182	State	Address	Element	State of the address	Required	One	_MN_State	extension from GRANTOR	Attribute	renamed and moved to element
183	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_MN_PostalCode	extension from GRANTOR	Attribute	renamed and moved to element
184	Country	Address	Element	Country of the address	Optional	One	_MN_Country	extension from GRANTOR	Attribute	renamed and moved to element
185	City									
186	Code	City	Attribute	The assigned code of the city	Optional	One				
187	Township									
188	Code	Township	Attribute	The assigned code of the township	Optional	One				
189	County									
190	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
191	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_CountyFIPSCode	extension from GRANTOR	Attribute	renamed and moved
192	State									
193	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
194	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_StateFIPSCode	extension from GRANTOR	Attribute	renamed and moved
195	Country									
196	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_MN_CountryCode	extension from GRANTOR	Attribute	renamed and moved
197	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
198	Communication									
199	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_MN_Method	_MN_COMMUNICATION	Attribute	renamed and moved to element
200	Value	Communication	Element	The value representing the identifier	Required	Multiple	_MN_ContactPhoneNumber _MN_Code	extension from GRANTOR _MN_COMMUNICATION	Attribute Attribute	renamed and restructured renamed and moved to element

201	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
202	Property									
203	LegalDescription	Property	Element	Identifies the legal description information for the property.	Required	Multiple	_LEGAL_DESCRIPTION	PROPERTY	Element	renamed
204	PropertyCode	Property	Element	The type of the subject property (eg. Abstract or	Required	One	_MN_PropertyCode	extension attribute of	Attribute	renamed and moved to
205	Address	Property	Element	The address of the subject property.	Required	Multiple				
206	LegalDescription									
207	ParcelIdentificationNumber	LegalDescription	Element	The identification number (commonly referred to as PIN) of the subject property.	Required	Multiple	_PARCEL_IDENTIFICATION _NumberIdentifier	_LEGAL_DESCRIPTION _PARCEL_IDENTIFICATION	Element Attribute	renamed removed, uses element instead
208	Comment	LegalDescription	Element	Allows a more detailed description about the subject.	Optional	One				
209	SurveyType	LegalDescription	Element	The platted and/or unplatted information of the subject property.	Required	One				
210	SurveyType									
211	PlattedLand	SurveyType	Element	Platted legal description of subject property.	At least one is required.	Multiple	PLATTED_LAND	_LEGAL_DESCRIPTION	Element	renamed
212	UnplattedLand	SurveyType	Element	Unplatted legal description of subject property.			UNPLATTED_LAND	_LEGAL_DESCRIPTION	Element	renamed
213	PlattedLand									
214	Type	PlattedLand	Attribute	Describes the type of platted land survey. (eg. Subdivision, condominium, CIC or RLS)	Required	One	_Type	PLATTED_LAND	Attribute	renamed
215	Name	PlattedLand	Element	Subdivision name of a platted subdivisions, condominium, CIC or RLS.	Required	One	PropertySectionIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
216	Lot	PlattedLand	Element	Lot unit as shown on Plat on file with county	Optional	One	PropertyLotIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
217	Tract	PlattedLand	Element	Tract number designated on a Registerd Land survey	Optional	One	PropertyTractIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
218	Block	PlattedLand	Element	Block unit as shown on Plat on file with county	Optional	One	PropertyBlockIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
219	Code	PlattedLand	Element	A coded identification number assigned to a plat by a county to be used to identify a plat in place of a subdivision name or platbook and page	Optional	One	_PlatCodeValue	PLATTED_LAND	Attribute	renamed and moved to element
220	Building	PlattedLand	Element	Building identifier of a buidling in a condominium or timeshare condominium	Optional	One	_BuildingNumberIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
221	AppurtenanceInformation	PlattedLand	Element	Accessory objects, such as a parking garage, parking psace, storage shed or boat slip	Optional	Multiple				
222	Unit	PlattedLand	Element	Unit Identifier or CECT (Common Element Certificate Title) number of a building in a condominium or timeshare condominium.	Optional	One	_UnitNumberIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
223	PartOfFlag	PlattedLand	Element	Indicator used to reveal if the property is only part of the platted legal description. The Comment element can be used to further describe the property boudaries.	Required	One	_MN_PartOfFlag	extension attribute of element PLATTED_LAND	Attribute	renamed
224	OtherLot	PlattedLand	Element	Allows for descriptor of another lot (eg. Parks)	Optional	One	_MN_OtherLot	extension attribute of _LEGAL_DESCRIPTION	Attribute	renamed and moved to element
225	Comment	PlattedLand	Element	Allows a more detailed description about the subject.	Optional	One				
226	AppurtenanceInformation									
227	Identifier	AppurtenanceInformation	Element	The identifier of the value.	Required	Multiple	_AppurtenanceIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
228	Value	AppurtenanceInformation	Element	The value representing the identifier	Required	Multiple	_AppurtenanceDescription	PLATTED_LAND	Attribute	renamed and moved to element
229	Comment	AppurtenanceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
230	UnplattedLand									

231	Type	UnplattedLand	Attribute	Describes the type of unplatted land survey. (eg. Government Survey or Land)	Required	One	_Type	UNPLATTED_LAND	Attribute	renamed
232	Section	UnplattedLand	Element	The Government Survey section in which the property is located, numbered 1 through 36 though some jurisdictions have up to 100 sections	Required	One	_SectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
233	Township	UnplattedLand	Element	The Government Survey Township coordinate and direction code of Property, e.g. 37N	Required	One	PropertyTownshipIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
234	Range	UnplattedLand	Element	The Government Survey Range doordinate and direction code of the property, e.g. 12E	Required	One	PropertyRangeIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
235	QuarterSection	UnplattedLand	Element	The quarter section in which the property is located. Based on Government Suvey system.	Optional	One	_QuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
236	QuarterQuarterSection	UnplattedLand	Element	The quarter section within the first quarter section in which the property is located. Based on Government Survey system.	Optional	One	_MN_QuarterQuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
237	QuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the second quarter section in which the property is located. Based on Government Survey system.	Optional	One	_MN_QuarterQuarterQuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
238	QuarterQuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the third quarter section in which the property is located. Based on Government Survey system.	Optional	One	_MN_QuarterQuarterQuarterQuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
239	GovernmentLot	UnplattedLand	Element	An Identifier of an irregular parcel of land.	Optional	One	_AbstractNumberIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
240	Comment	UnplattedLand	Element	Allows a more detailed description about the subject.	Optional	One	_MetesAndBoundsRemainingText	UNPLATTED_LAND	Attribute	renamed and moved to element
241	Address									
242	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
243	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_StreetAddress _StreetAddress2	PROPERTY	Attribute	renamed, restructueed and moved to element
244	City	Address	Element	City of the address	Optional	One	_City	PROPERTY	Attribute	renamed and moved to element
245	Township	Address	Element	Township of the address	Optional	One				
246	County	Address	Element	County of the address	Required	One	_State	PROPERTY	Attribute	renamed and moved to element
247	State	Address	Element	State of the address	Required	One	_County	PROPERTY	Attribute	renamed and moved to element
248	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_PostalCode	PROPERTY	Attribute	renamed and moved to element
249	Country	Address	Element	Country of the address	Optional	One	_MN_Country	extension attribute of PROPERTY	Attribute	renamed and moved to element
250	City									
251	Code	City	Attribute	The assigned code of the city	Optional	One				
252	Township									
253	Code	Township	Attribute	The assigned code of the township	Optional	One				
254	County									
255	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
256	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_CountyFIPSCode	_IDENTIFICATION	Attribute	renamed and moved
257	State									
258	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
259	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_IDENTIFICATION	Attribute	renamed and moved

260	Country									
261	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_MN_CountryCode	extension attribute of PROPERTY	Attribute	renamed and moved attribute
262	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
263	Parties									
264	ReturnToParty	Parties	Element	Party where recorded document will eventually be returned to. This may not always be the sumitting party.	Optional	Multiple	_RETURN_TO_PARTY	PARTIES	Element	renamed
265	DraftedOrPreparedByParty	Parties	Element	Party who prepared the document.	Required	Multiple	_PREPATED_BY_PARTY	PARTIES	Element	renamed
266	BillToParty	Parties	Element	Party responsible for payment of all fees associated with the recording of the document.	Optional	Multiple	_BILL_TO_PARTY	PARTIES	Element	renamed
267	SignedByParty	Parties	Element	The information of the people signing the document.	Required	One				
268	DraftedOrPreparedByParty									
269	EntityName	DraftedOrPreparedByParty	Element	The information for the names of the respective party.	Required	One				
270	Correspondence	DraftedOrPreparedByParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
271	EntityName									
272	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple				
273	Individual	EntityName	Element	A person's name and title.						
274	Individual									
275	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
276	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
277	Organization									
278	PrimaryName	Organization	Element	The name of the organization.	Required	One	_OrganizationName	_RETURN_TO_PARTY	Attribute	renamed
279	Individual	Organization	Element	The representative for the organization.	Optional	Multiple				
280	Individual									
281	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
282	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
283	Correspondence									
284	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
285	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple				
286	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple	_MN_COMMUNICATION	extension of _PREPARED_BY_PARTY	element	renamed
287	Address									
288	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
289	StreetAddress	Address	Element	Street Address of the address	Required	Multiple	_StreetAddress _StreetAddress2	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
290	City	Address	Element	City of the address	Required	One	_City	_RETURN_TO_PARTY	Attribute	renamed and moved to element
291	Township	Address	Element	Township of the address	Optional	One				

292	County	Address	Element	County of the address	Optional	One	_County	_RETURN_TO_PARTY	Attribute	renamed and moved to element
293	State	Address	Element	State of the address	Required	One	_State	_RETURN_TO_PARTY	Attribute	renamed and moved to element
294	ZipCode	Address	Element	Zipcode/Zip code of the address	Required	One	_PostalCode	_RETURN_TO_PARTY	Attribute	renamed and moved to element
295	Country	Address	Element	Country of the address	Optional	One	_Country	_RETURN_TO_PARTY	Attribute	renamed and moved to element
296	City									
297	Code	City	Attribute	The assigned code of the city	Optional	One				
298	Township									
299	Code	Township	Attribute	The assigned code of the township	Optional	One				
300	County									
301	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
302	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_CountyFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
303	State									
304	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
305	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
306	Country									
307	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_CountryCode	_RETURN_TO_PARTY	Attribute	renamed
308	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
309	Communication									
310	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_ElectronicRoutingMethod _MN_Method	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
311	Value	Communication	Element	The value representing the identifier	Required	Multiple	_ContactPhoneNumber _ElectronicRoutingAddress _MN_Code	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
312	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
313	ReturnToParty									
314	EntityName	ReturnToParty	Element	The information for the names of the respective party.	Required	One				
315	Correspondence	ReturnToParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
316	EntityName									
317	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple				
318	Individual	EntityName	Element	A person's name and title.						
319	Individual									
320	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
321	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
322	Organization									
323	PrimaryName	Organization	Element	The name of the organization.	Required	One	_OrganizationName	_RETURN_TO_PARTY	Attribute	renamed
324	Individual	Organization	Element	The representative for the organization.	Optional	Multiple				
325	Individual									

326	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
327	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
328	Correspondence									
329	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
330	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple				
331	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple				
332	Address									
333	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
334	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_StreetAddress _StreetAddress2	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
335	City	Address	Element	City of the address	Required	One	_City	_RETURN_TO_PARTY	Attribute	renamed and moved to element
336	Township	Address	Element	Township of the address	Optional	One				
337	County	Address	Element	County of the address	Optional	One	_County	_RETURN_TO_PARTY	Attribute	renamed and moved to element
338	State	Address	Element	State of the address	Required	One	_State	_RETURN_TO_PARTY	Attribute	renamed and moved to element
339	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_PostalCode	_RETURN_TO_PARTY	Attribute	renamed and moved to element
340	Country	Address	Element	Country of the address	Optional	One	_Country	_RETURN_TO_PARTY	Attribute	renamed and moved to element
341	City									
342	Code	City	Attribute	The assigned code of the city	Optional	One				
343	Township									
344	Code	Township	Attribute	The assigned code of the township	Optional	One				
345	County									
346	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
347	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_CountyFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
348	State									
349	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
350	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
351	Country									
352	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_CountryCode	_RETURN_TO_PARTY	Attribute	renamed
353	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
354	Communication									
355	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_ElectronicRoutingMethod	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
356	Value	Communication	Element	The value representing the identifier	Required	Multiple	_ContactPhoneNumber _ElectronicRoutingAddress	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
357	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
358	BillToParty									
359	EntityName	BillToParty	Element	The information for the names of the respective party.	Required	One				

394	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
395	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
396	Country									
397	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_CountryCode	_RETURN_TO_PARTY	Attribute	renamed
398	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
399	Communication									
400	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_ElectronicRoutingMethod _MN_Method	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
401	Value	Communication	Element	The value representing the identifier	Required	Multiple	_ContactPhoneNumber _ElectronicRoutingAddress _MN_Code	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
402	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
403	SignedByParty									
404	Id	SignedByParty	Attribute	The ID referenced when notarizing or witnessing a signature or group of signatures.	Required	One				
405	SigningEntityGroup	SignedByParty	Element	Groups the individuals that are signing the document for the same purpose (ie. endorser, witness)	Required	Multiple				
406	SigningEntityGroup									
407	Type	SigningEntityGroup	Attribute	The type of the group of signatures. (eg. "Endorser" or "Witness")	Required	Multiple				
408	Id	SigningEntityGroup	Attribute	The ID reference when witnessing or notarizing a signature or group of signatures.	Required	Multiple				
409	SigningEntity	SigningEntityGroup	Element	The entity(s) that are signing the document.	Required	Multiple				
410	SigningEntity									
411	EntityName	SigningEntity	Element	The information for the names of the respective party.	Required					
412	Correspondence	SigningEntity	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
413	EntityName									
414	Organization	EntityName	Element	The name of the organization and its signing representative(s).	Choice of Organization or Individual	Multiple				
415	Individual	EntityName	Element	The person's name and title for signing purposes.		Multiple				
416	Organization									
417	Name	Organization	Element	The information about all the different names for an organization.	Optional	One				
418	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One				
419	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple				
420	Seal	Organization	Element	The seal of the person or organization signing.	Optional	One	_MN_SignatorySeal	PRIA_SIGNATURE	Attribute	renamed and moved to element
421	Individual	Organization	Element	The information about the person who is signing the document for the organization. (eg. JANE DOE, OPERATIONS OFFICER)	Required	Multiple				

422	Name									
423	PrimaryName	Name	Element	The primary name of an organization.	Required	One	_SignatoryOrganizationName _MN_SignatoryOrganizationName	PRIA_SIGNATURE	Attribute	renamed and moved to element
424	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
425	OtherName									
426	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One				
427	RegulatoryEntity									
428	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
429	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
430	RelatedOrganization									
431	RelatedRole	RelatedOrganization	Attribute	The information about all the relationship between organizations.	Required	One				
432	Name	Organization	Element	The information about all the different names for an organization.	Required	One				
433	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
434	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple				
435	Name									
436	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
437	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
438	OtherName									
439	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One				
440	RegulatoryEntity									
441	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple	_MN_SignatoryEntityType	extension attribute of PRIA_SIGNATURES	Attribute	renamed
442	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple	_MN_SignatoryOrganizedUnderTheLawsOfJurisdictionName	extension attribute of PRIA_SIGNATURES	Attribute	renamed
443	Individual									
444	PrimaryName	Individual	Element	The information about the person who is signing	Required	One				
445	Title	Individual	Element	The title of the person. (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One	_SignatoryOrganizationPosition	PRIA_SIGNATURE	Attribute	renamed and moved to element
446	Signature	Individual	Element	Information detailing the signature of the person.	Required	One	_ELECTRONIC_SIGNATURE _MN_PRIASignatureRootID	PRIA_SIGNATURE	Element Attribute	renamed and restructured
447	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One				
448	PrimaryName									
449	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
450	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple	_SignatoryFirstName	PRIA_SIGNATURE	Attribute	renamed and moved to element
451	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_SignatoryMiddleName	PRIA_SIGNATURE	Attribute	renamed and moved to element

452	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_SignatoryLastName	PRIA_SIGNATURE	Attribute	renamed and moved to element
453	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_SignatoryNameSuffix	PRIA_SIGNATURE	Attribute	renamed and moved to element
454	Individual									
455	Name	Individual	Element	The unparsed name of the person	Required	One				
456	Capacity	Individual	Element	The capacity of the person (eg. Guardian, trustee)	Optional	One				
457	Signature	Individual	Element	Information detailing the signature of the person.	Required	One	_ELECTRONIC_SIGNATURE_MN_PRIASignatureRootID	PRIA_SIGNATURE	Element Attribute	renamed and restructured
458	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One				
459	Name									
460	PrimaryName	Name	Element	The commonly used name for an individual.	Required	One				
461	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)	Optional	Multiple				
462	PrimaryName									
463	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
464	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple	_SignatoryFirstName	PRIA_SIGNATURE	Attribute	renamed and moved to element
465	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_SignatoryMiddleName	PRIA_SIGNATURE	Attribute	renamed and moved to element
466	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_SignatoryLastName	PRIA_SIGNATURE	Attribute	renamed and moved to element
467	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_SignatoryNameSuffix	PRIA_SIGNATURE	Attribute	renamed and moved to element
468	OtherName									
469	Type	OtherName	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One				
470	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
471	FirstName	OtherName	Element	The first name of an individual	Required	Multiple				
472	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple				
473	LastName	OtherName	Element	The last name of an individual	Required	Multiple				
474	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
475	Capacity									
476	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple				
477	Value	Capacity	Element	The value representing the identifier	Required	Multiple	_SignatoryCapacity	PRIA_SIGNATURE	Attribute	renamed, restructured and moved to element
478	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
479	Address									
480	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
481	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple				
482	City	Address	Element	City of the address	Required	One				
483	Township	Address	Element	Township of the address	Optional	One				
484	County	Address	Element	County of the address	Optional	One				
485	State	Address	Element	State of the address	Required	One				
486	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One				
487	Country	Address	Element	Country of the address	Optional	One				
488	City									

489	Code	City	Attribute	The assigned code of the city	Optional	One				
490	Township									
491	Code	Township	Attribute	The assigned code of the township	Optional	One				
492	County									
493	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
494	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
495	State									
496	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
497	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
498	Country									
499	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One				
500	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
501	Communication									
502	Identifier	Communication	Element	The identifier of the value.	Required	Multiple				
503	Value	Communication	Element	The value representing the identifier	Required	Multiple				
504	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
505	OriginalMortgageeParty									
506	EntityName	OriginalMortgageeParty	Element	The information for the names of the respective party.	Required	One				
507	Correspondence	OriginalMortgageeParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
508	EntityName									
509	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
510	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple				
511	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
512	Organization									
513	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_CERTIFIER	extension to PRIA_DOCUMENT	Element	renamed and restructured
514	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
515	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_CERTIFIER	Element	renamed
516	Name									
517	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_CERTIFIER	Attribute	renamed and moved to element

518	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS _MN_OrganizationName	_MN_CERTIFIER _MN_ALIAS	Element Attribute	renamed renamed and moved to element
519	OtherName									
520	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
521	RegulatoryEntity									
522	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
523	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
524	RelatedOrganization									
525	RelatedRole	Organization	Attribute	The information defining the relationship between the two entities.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
526	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element
527	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
528	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
529	Name									
530	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
531	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
532	OtherName									
533	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
534	RegulatoryEntity									
535	Identifier		Element	The identifier of the value.	Required	Multiple				
536	Value		Element	The value representing the identifier	Required	Multiple				
537	IndividualGroup									
538	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One				
539	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
540	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
541	Name									
542	PrimaryName	Name	Element	The commonly used name for an individual.		One				
543	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple				
544	PrimaryName									
545	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
546	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple				
547	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
548	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
549	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
550	OtherName									

551	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
552	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple				
553	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple				
554	LastName	OtherName	Element	The last name of an individual	Required	Multiple				
555	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
556	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One				
557	Capacity									
558	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple				
559	Value	Capacity	Element	The value representing the identifier	Required	Multiple				
560	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
561	Correspondence									
562	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
563	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
564	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple				
565	Address									
566	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
567	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple				
568	City	Address	Element	City of the address	Required	One				
569	Township	Address	Element	Township of the address	Optional	One				
570	County	Address	Element	County of the address	Optional	One				
571	State	Address	Element	State of the address	Required	One				
572	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One				
573	Country	Address	Element	Country of the address	Optional	One				
574	County									
575	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
576	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
577	State									
578	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
579	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
580	Country									
581	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One				
582	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
583	Communication									
584	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_MN_Method	_MN_COMMUNICATION	Attribute	renamed and moved to element
585	Value	Communication	Element	The value representing the identifier	Required	Multiple	_MN_ContactPhoneNumber _MN_Code	extension from GRANTOR _MN_COMMUNICATION	Attribute Attribute	renamed and restructured renamed and moved to element
586	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
587	MortgageServicerParty									

588	EntityName	MortgageServicerParty	Element	The information for the names of the respective party.	Required	One				
589	Correspondence	MortgageServicerParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
590	EntityName									
591	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
592	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple				
593	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
594	Organization									
595	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_MORTGAGE_SERVICER	extension to PRIA_DOCUMENT	Element	renamed and restructured
596	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
597	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_MORTGAGE_SERVICER	Element	renamed
598	Name									
599	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_MORTGAGE_SERVICER	Attribute	renamed and moved to element
600	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS _MN_OrganizationName	_MN_MORTGAGE_SERVICER _MN_ALIAS	Element Attribute	renamed renamed and moved to element
601	OtherName									
602	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
603	RegulatoryEntity									
604	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
605	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
606	RelatedOrganization									
607	RelatedRole	Organization	Attribute	The information defining the relationship between the two entities.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
608	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element
609	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
610	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
611	Name									
612	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
613	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
614	OtherName									

615	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
616	RegulatoryEntity									
617	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
618	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
619	IndividualGroup									
620	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One				
621	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
622	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
623	Name									
624	PrimaryName	Name	Element	The commonly used name for an individual.		One				
625	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple				
626	PrimaryName									
627	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
628	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple				
629	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
630	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
631	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
632	OtherName									
633	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
634	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple				
635	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple				
636	LastName	OtherName	Element	The last name of an individual	Required	Multiple				
637	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
638	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One				
639	Capacity									
640	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple				
641	Value	Capacity	Element	The value representing the identifier	Required	Multiple				
642	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
643	Correspondence									
644	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
645	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
646	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple				
647	Address									
648	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
649	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple				
650	City	Address	Element	City of the address	Required	One				
651	Township	Address	Element	Township of the address	Optional	One				

652	County	Address	Element	County of the address	Optional	One				
653	State	Address	Element	State of the address	Required	One				
654	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One				
655	Country	Address	Element	Country of the address	Optional	One				
656	County									
657	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
658	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
659	State									
660	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
661	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
662	Country									
663	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One				
664	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
665	Communication									
666	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_MN_Method	_MN_COMMUNICATION	Attribute	renamed and moved to element
667	Value	Communication	Element	The value representing the identifier	Required	Multiple	_MN_ContactPhoneNumber _MN_Code	extension from GRANTOR _MN_COMMUNICATION	Attribute Attribute	renamed and restructured renamed and moved to element
668	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
669	AssigneeParty									
670	EntityName	AssigneeParty	Element	The information for the names of the respective party.	Required	One				
671	Correspondence	AssigneeParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
672	EntityName									
673	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
674	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple				
675	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
676	Organization									
677	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_ASSIGNEE	extension to PRIA_DOCUMENT	Element	renamed and restructured
678	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
679	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_ASSIGNEE	Element	renamed
680	Name									

681	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_ASSIGNEE	Attribute	renamed and moved to element
682	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS _MN_OrganizationName	_MN_ASSIGNEE _MN_ALIAS	Element Attribute	renamed renamed and moved to element
683	OtherName									
684	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
685	RegulatoryEntity									
686	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
687	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
688	RelatedOrganization									
689	RelatedRole	Organization	Attribute	The information defining the relationship between the two entities.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
690	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element
691	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
692	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
693	Name									
694	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
695	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
696	OtherName									
697	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
698	RegulatoryEntity									
699	Identifier		Element	The identifier of the value.	Required	Multiple				
700	Value		Element	The value representing the identifier	Required	Multiple				
701	IndividualGroup									
702	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One				
703	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
704	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
705	Name									
706	PrimaryName	Name	Element	The commonly used name for an individual.		One				
707	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple				
708	PrimaryName									
709	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
710	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple				
711	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
712	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
713	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				

714	OtherName									
715	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
716	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple				
717	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple				
718	LastName	OtherName	Element	The last name of an individual	Required	Multiple				
719	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
720	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One				
721	Capacity									
722	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple				
723	Value	Capacity	Element	The value representing the identifier	Required	Multiple				
724	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
725	Correspondence									
726	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
727	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
728	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple				
729	Address									
730	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
731	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple				
732	City	Address	Element	City of the address	Required	One				
733	Township	Address	Element	Township of the address	Optional	One				
734	County	Address	Element	County of the address	Optional	One				
735	State	Address	Element	State of the address	Required	One				
736	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One				
737	Country	Address	Element	Country of the address	Optional	One				
738	County									
739	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
740	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
741	State									
742	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
743	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
744	Country									
745	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One				
746	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
747	Communication									
748	Identifier	Communication	Element	The identifier of the value.	Required	Multiple				
749	Value	Communication	Element	The value representing the identifier	Required	Multiple				
750	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
751	Notary									
752	PrimaryName	Notary	Element	Name of the notary.	Required	One				
753	Title	Notary	Element	Title of the notary, or official e.g. Notary Public	Required	One	_Title	NOTARY	Attribute	renamed and moved to element

754	CommissionNumber	Notary	Element	Commission Number assigned to Notary by Authorizing Agency (usually Secretary of State)	Optional	One	_CommissionNumber	NOTARY	Attribute	renamed and moved to element
755	CommissionExpirationDate	Notary	Element	Expiration date of Notary Commission if the PerpetualFlag = 'False'. If the PerpetualFlag = 'True', then date is set to infinity (9999-12-31) to represent the county official's perpetual end date.	Required	One	_CommissionExpirationDate	NOTARY	Attribute	renamed and moved to element
756	CommissionState	Notary	Element	State in which the Notary is commissioned	Required	One	_CommissionState	NOTARY	Attribute	renamed and moved to element
757	CommissionCounty	Notary	Element	County in which the Notary is commissioned	Optional	One	_CommissionCounty	NOTARY	Attribute	renamed and moved to element
758	CommissionCountry	Notary	Element	Country in which the Notary is commissioned	Optional	One				
759	Seal	Notary	Element	The seal of the person signing.	Optional	One	_MN_Seal	extension attribute to Notary	Attribute	renamed and moved to element
760	Signature	Notary	Element	Information detailing the signature of the person.	Required	One	_MN_ELECTRONIC_SIGNATURE _MN_ElectronicSignatureIDRef	extension to Notary	Element Attribute	renamed and restructured
761	CommissionExpiration Date									
762	PerpetualFlag	CommissionExpirationDate	Attribute	Identifies if the commission is perpetual or not. (eg. a person working in the county office would be authorized as long as they are an employee). A notary would not a perpetual commission since they have a commission expiration date.	Required	One				
763	PrimaryName									
764	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
765	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple	_FirstName	NOTARY	Attribute	renamed and moved to element
766	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_MiddleName	NOTARY	Attribute	renamed and moved to element
767	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_LastName	NOTARY	Attribute	renamed and moved to element
768	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_NameSuffix	NOTARY	Attribute	renamed and moved to element
769	CountyInformation									
770	RecordingEndorsement	CountyInformation	Element	The information about the recording of the document and the fees associated with the recording.	Choice of RecordingEndorsement or Rejection	Multiple				
771	Rejection	CountyInformation	Element	Information detailing the specifics about the rejection of the document.						
772	RecordingEndorsement									
773	RecordedInformation	RecordingEndorsement	Element	The information about the recording of the document.	Required	Multiple				
774	Fees	RecordingEndorsement	Element	The fees associated with the recording of the document.	Required	Multiple	_FEES	RECORDING_ENDORSEMENT		
775	RecordingInformation									
776	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One	_Number	RECORDING_ENDORSEMENT		
777	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One				
778	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One				

779	CertificateOfTitle Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One	_MN_CertificateOfTitleNumber	extension to RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
780	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One	_RecordedCounty	RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
781	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One	_RecordedState	RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
782	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One				
783	RecordedDateAndOrTime	RecordedInformation	Element	The recorded date and time of the document	Required	One	_RecordedDate _RecordedTime	RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
784	Officer	RecordedInformation	Element	Identifies the name of the person signing the document authorizing that it has been recorded.	Required	Multiple				
785	BookOrVolumeInformation									
786	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One				
787	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One	_VolumeType _Volume	RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
788	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One				
789	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One				
790	Officer									
791	PrimaryName	Officer	Element	The unparsed name of the person	Required	One	_OfficersName _MN_DeputysName	RECORDING_ENDORSEMENT extension to RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
792	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One	_MN_OfficersTitle	extension to RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
793	Signature	Officer	Element	Information detailing the signature of the person.	Required	One				
794	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One				
795	PrimaryName									
796	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
797	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple				
798	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
799	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
800	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
801	Fees									
802	TotalAmount	Fees	Element	The total of all the fees involved in the recording for this office.	Required	One	_TotalAmount	_FEES	Attribute	renamed, restructured and moved to element
803	ProcessingInformation	Fees	Element	The information about the processing of the fees.	Required	One				
804	Fee	Fees	Element	The breakdown of the type and amount of the fees.	Required	Multiple	_FEE	_FEES	Element	renamed and restructured
805	ProcessingInformation									
806	Number	ProcessingInformation	Element	The individual's prefix	Optional	One				
807	Officer	ProcessingInformation	Element	Identifies the name of the person signing the document authorizing for a specific reason in an office.	Optional	Multiple	_MN_ProcessedBy	extension to _Fees	Attribute	renamed, restructured and moved to element
808	DateTime	ProcessingInformation	Element	The individual's last name	Optional	One	_MN_ProcessedDate	extension to _Fees	Attribute	renamed, restructured and moved to element

809	Office	ProcessingInformation	Element	The office that is processing the fees (eg. Recorder, Auditor, Treasurer, etc.)	Required	One				
810	Officer									
811	PrimaryName	Officer	Element	The unparsed name of the person	Required	One				
812	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One				
813	Signature	Officer	Element	Information detailing the signature of the person.	Required	One	_ELECTRONIC_SIGNATURE RE _MN_ElectronicSignatureRef	extension to RECORDING_ENDORSEMENT	Element Attribute	renamed and restructured
814	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One				
815	PrimaryName									
816	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
817	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple				
818	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
819	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
820	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
821	Fee									
822	ExemptFeeFlag	Fee	Attribute	The indicator that the person or organization was exempt from paying the fee.	Required	One	_EXEMPTIONS	RECORDING_ENDORSEMENT	Element	renamed and restructured
823	Identifier	Fee	Element	The identifier of the value.	Required	Multiple	_Description	_FEE	Attribute	renamed and moved to
824	Value	Fee	Element	The value representing the identifier	Required	Multiple	_Amount	_FEE	Attribute	renamed and moved to element
825	Comment	Fee	Element	Allows a more detailed description about the subject.	Optional	One				
826	Rejection									
827	County	Rejection	Element	The county that rejected the document	Required	One				
828	State	Rejection	Element	The state that rejected the document.	Required	One				
829	RejectInformation	Rejection	Element	The details about the reject information.	Required	Multiple				
830	RejectInformation									
831	Office	RejectInformation	Element	The Office (County Recorder, Registrar of Titles, Auditor, etc.) that the document was rejected in	Required	One				
832	Officer	RejectInformation	Element	The Officer that the document was rejected by	Optional	One				
833	Date and Time	RejectInformation	Element	The date and time that the document was rejected	Optional	One				
834	Reason	RejectInformation	Element	The reason(s) why the document was rejected. (eg. Identifier = '010', Value = 'wrong county')	Required	Multiple				
835	Officer									
836	PrimaryName	Officer	Element	The unparsed name of the person	Optional	One	_MN_RejectorsName	extension to RECORDING_ENDORSE	Attribute	renamed and moved to element
837	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One				
838	Reason									
839	Identifier	Reason	Element	The identifier of the value.	Optional	Multiple	_MN_Code	extension to RECORDING_ENDORSE	Attribute	renamed and moved to element
840	Value	Reason	Element	The value representing the identifier	Required	Multiple	_MN_Reason	extension to RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
841	Comment	Reason	Element	Allows a more detailed description about the subject.	Optional	One				
842	RecordedDocument									

843	MortgageReferenceDocument	RecordedDocument	Element	The Mortgage document that is referenced in the document being recorded.	Required	Multiple				
844	MortgageReferenceDocument									
845	RecordedInformation	MortgageReferenceDocument	Element	The information about the recording of the document.	Required	Multiple				
846	SupplementalInformation	MortgageReferenceDocument	Element	Additional recording information for the document	Required	One				
847	RecordedInformation									
848	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One	_InstrumentNumber	RECORDED_DOCUMENT	Attribute	renamed and moved to element
849	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One				
850	Certificate of Title Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One	_MN_CertificateOfTitleNumber	extension attribute of RECORDED_DOCUMENT	Attribute	renamed and moved to element
851	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One	_MN_PropertyCode	extension attribute of RECORDED_DOCUMENT	Attribute	renamed and moved to element
852	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One	_CountyOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
853	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One	_StateOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
854	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One	_OfficeOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
855	RecordedDateAndOrTime	RecordedInformation	Element	The Date and/or time that the document was recorded on.	Required	One				
856	BookOrVolumeInformation									
857	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One	_BookNumber _BookType _BookTypeOtherDescription	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
858	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One	_VolumeNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
859	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One	_PageNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
860	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One	_MN_EndPageNumber	extension attribute of RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
861	RecordedDateAndOrTime									
862	RecordedDate	RecordedDateAndOrTime	Element	The recorded date of the reference document.	Choice of RecordedDate or RecordedDateTime	One	_RecordingDate	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
863	RecordedDateTime	RecordedDateAndOrTime	Element	The recored date and time of the reference document		One				
864	SupplementalInformation									
865	ReferenceInformation	SupplementalInformation	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple				
866	Code	SupplementalInformation	Element	Abbreviated code of the document.	Required	One	_Code	RECORDED_DOCUMENT	Attribute	renamed and moved to element
867	Type	SupplementalInformation	Element	Identifies the type of document	Required	One	_Type	RECORDED_DOCUMENT	Attribute	renamed and moved to element
868	Instrument Date	SupplementalInformation	Element	Date of the document.	Optional	One	_MN_InstrumentDate	extension attribute of RECORDED_DOCUMENT	Attribute	renamed and moved to element
869	Amount	SupplementalInformation	Element	Information about the amount of the mortgage.	Optional	Multiple				
870	InterestStartDate	SupplementalInformation	Element	The start date of the interest of the mortgage.	Optional	One				
871	ReferenceInformation									
872	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple				
873	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple				

874	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
875	Amount									
876	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple				
877	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple				
878	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
879	AssignmentOfMortgageReferenceDocument									
880	RecordedInformation	AssignmentOfMortgageReferenceDocument	Element	The information about the recording of the document.	Required	Multiple				
881	SupplementalInformation	AssignmentOfMortgageReferenceDocument	Element	Additional recording information for the document	Required	One				
882	RecordedInformation									
883	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One	_InstrumentNumber	RECORDED_DOCUMENT	Attribute	renamed and moved to element
884	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One				
885	Certificate of Title Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One	_MN_CertificateOfTitleNumber	RECORDED_DOCUMENT	Attribute	renamed and moved to element
886	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One	_MN_PropertyCode	RECORDED_DOCUMENT	Attribute	renamed and moved to element
887	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One	_CountyOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
888	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One	_StateOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
889	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One	_OfficeOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
890	RecordedDateAndOrTime	RecordedInformation	Element	The Date and/or time that the document was recorded on.	Required	One				
891	BookOrVolumeInformation									
892	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One	_BookNumber _BookType _BookTypeOtherDescription	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
893	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One	_VolumeNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
894	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One	_PageNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
895	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One	_MN_EndPageNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
896	RecordedDateAndOrTime									
897	RecordedDate	RecordedDateAndOrTime	Element	The recorded date of the reference document.	Choice of RecordedDate or RecordedDateTime	One	_RecordingDate	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
898	RecordedDateTime	RecordedDateAndOrTime	Element	The recored date and time of the reference document		One				
899	SupplementalInformation									
900	ReferenceInformation	SupplementalInformation	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple				
901	Code	SupplementalInformation	Element	Abbreviated code of the document.	Required	One	_Code	RECORDED_DOCUMENT	Attribute	renamed and moved to element
902	Type	SupplementalInformation	Element	Identifies the type of document	Required	One	_Type	RECORDED_DOCUMENT	Attribute	renamed and moved to element

903	SubType	SupplementalInformation	Element	Identifies a subtype of the type of the document used to help identify the type of the Grantor. (eg. by Individual, by Corporation or Parnership)	Optional	One				
904	Instrument Date	SupplementalInformation	Element	Date of the document.	Optional	One	_MN_InstrumentDate	RECORDED_DOCUMENT	Attribute	renamed and moved to element
905	ReferenceInformation									
906	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple				
907	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple				
908	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
909	AppointmentOfAgentReferenceDocument									
910	RecordedInformation	AppointmentOfAgentReferenceDocument	Element	The information about the recording of the document.	Required	Multiple				
911	SupplementalInformation	AppointmentOfAgentReferenceDocument	Element	Additional recording information for the document	Required	One				
912	RecordedInformation									
913	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One	_InstrumentNumber	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
914	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One				
915	Certificate of Title Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One	_MN_CertificateOfTitleNumber	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
916	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One	_MN_PropertyCode	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
917	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One	_CountyOfRecordationName	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
918	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One	_StateOfRecordationName	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
919	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One	_OfficeOfRecordationName	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
920	RecordedDateAndOrTime	RecordedInformation	Element	The Date and/or time that the document was recorded on.	Required	One				
921	BookOrVolumeInformation									
922	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One	_BookNumber _BookType _BookTypeOtherDescription	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed, restructured and moved to element
923	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One	_VolumeNumber	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed, restructured and moved to element
924	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One	_PageNumber	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed, restructured and moved to element
925	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One	_MN_EndPageNumber	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed, restructured and moved to element
926	RecordedDateAndOrTime									
927	RecordedDate	RecordedDateAndOrTime	Element	The recorded date of the reference document.	Choice of RecordedDate or RecordedDateTime	One				
928	RecordedDateTime	RecordedDateAndOrTime	Element	The recored date and time of the reference document		One				
929	SupplementalInformation									
930	ReferenceInformation	SupplementalInformation	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple				
931	Code	SupplementalInformation	Element	Abbreviated code of the document.	Required	One	_Code	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element

932	Type	SupplementalInformation	Element	Identifies the type of document	Required	One	_Type	_MN_AGENT_APPOINTMENT_DOCUMENT	Attribute	renamed and moved to element
933	ReferenceInformation									
934	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple				
935	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple				
936	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
937	EmbeddedFile									
938	Type	EmbeddedFile	Attribute	The type of file that is being attached.	Required	One	_MN_Type_Type	_MN_VIEW_EMBEDDED_FILE	Attribute	renamed
939	FileType	EmbeddedFile	Attribute	In addition to the MIME Type, identifies the program or application used to create the embedded file (i.e. Adobe Acrobat)	Optional	One				
940	Name	EmbeddedFile	Attribute	Identifies the name of the embedded file (i.e. CertificateOfRelease.pdf)	Optional	One	_Name			
941	Extension	EmbeddedFile	Attribute	Identifies the extension used to identify the embedded file (i.e. PDF, ZIP, HTML)	Optional	One	_Extension	EMBEDDED_FILE	Attribute	Renamed
942	Description	EmbeddedFile	Attribute	Provides additional information about the embedded file.	Optional	One	_Description	EMBEDDED_FILE	Attribute	Renamed
943	MimeType	EmbeddedFile	Attribute	Indicates the Multipurpose Internet Mail Extensions type of the data in the document. A registered list of these types may be downloaded via ftp from: ftp.isi.edu/in-notes/iana/assignments/media-types/media-types. See http://www.isi.edu/in-notes/iana/assignments/media-types/media-types	Required	One	_MimeType	EMBEDDED_FILE	Attribute	Renamed
944	Encoded	EmbeddedFile	Attribute	Indicates if the file has been encoded.	Required	One				
945	EncodingType	EmbeddedFile	Attribute	Specifies the type of encoding used on the embedded file (i.e. Base64)	Optional	One	_EncodingType	EMBEDDED_FILE	Attribute	Renamed
946	Version	EmbeddedFile	Attribute	Identifies additional version information about the embedded file.	Optional	One	_Version	EMBEDDED_FILE	Attribute	Renamed
947	Signature									
948	DigitalSignature	Signature	Element	Identifies the information associated with an XML Signature as defined in the XML Signature Specification published by the World Wide Web Consortium.	One of DigitalSignature, DigitizedSignature, TextSignature or Object Signature	One				
949	DigitizedSignature	Signature	Element	Identifies the information associated with a Digitized Signature, i.e., the image file and the references to elements signed by that image file.		One				
950	TextSignature	Signature	Element	Identifies the information associated with a text signature, i.e., the text captured by an application representing a person's signature and the references to elements signed by that text.		One				
951	ObjectSignature	Signature	Element	Identifies the information associated with an Object Signature, i.e., the external object code the and references to the elements signed by that object code.		One				
952										
953							MORTGAGE_CONSIDERATION	PRIA_DOCUMENT	Element	Removed element
954							OriginalLoanAmount	MORTGAGE_CONSIDERATION	Attribute	Removed attribute
955							_AdvancedFundsAmount	MORTGAGE_CONSIDERATION	Attribute	Removed attribute
956							CONSIDERATION	PRIA_DOCUMENT	Element	Removed element

957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996

_Description	CONSIDERATION	Attribute	Removed attribute
_Amount	CONSIDERATION	Attribute	Removed attribute
_City	EXECUTION	Attribute	Removed attribute
_MN_UnparsedFIPSCode	extension attribute of GRANTOR	Attribute	Removed attribute
_MN_UnparsedName	extension attribute of _MN_NAME_GROUP	Attribute	Removed attribute
_MN_UnparsedName	extension attribute of _MN_ALIAS	Attribute	Removed attribute
_MN_UnparsedName	extension attribute of _MN_RELATED	Attribute	Removed attribute
AccessorsParcelIdentifer	PROPERTY	Attribute	Removed attribute
PARSED_STREET_ADDRESS	PROPERTY	Element	Removed element
_Type	_LEGAL_DESCRIPTION	Attribute	Removed attribute
_TypeOtherDescription	_LEGAL_DESCRIPTION	Attribute	Removed attribute
_TextDescription	_LEGAL_DESCRIPTION	Attribute	Removed attribute
_TypeIdentifier	_PARCEL_IDENTIFICATION	Attribute	Removed attribute
_Description	_PARCEL_IDENTIFICATION	Attribute	Removed attribute
_PlatBookIdentifier	PLATTED_LAND	Attribute	Removed attribute
_PlatPagIdentifier	PLATTED_LAND	Attribute	Removed attribute
_PlatInstrumentNumber	PLATTED_LAND	Attribute	Removed attribute
_PlatCodeValue	PLATTED_LAND	Attribute	Removed attribute
PropertySubdivisionIdentifier	PLATTED_LAND	Attribute	Removed attribute
_AdditionalParcelIdentifier	PLATTED_LAND	Attribute	Removed attribute
_AdditionalParcelDescription	PLATTED_LAND	Attribute	Removed attribute
_BaseNumber	UNPLATTED_LAND	Attribute	Removed attribute
_MeridianNumber	UNPLATTED_LAND	Attribute	Removed attribute
_BaseAndMeridianIdentifier	UNPLATTED_LAND	Attribute	Removed attribute
_LandGrantIdentifier	UNPLATTED_LAND	Attribute	Removed attribute
_OTHER_LEGAL	_LEGAL_DESCRIPTION	Element	Removed element
_Type	_OTHER_LEGAL	Attribute	Removed attribute
_Description	_OTHER_LEGAL	Attribute	Removed attribute
_UnparsedFIPSCode	_RETURN_TO_PARTY	Attribute	Removed attribute
_TypeOtherDescription	RECORDED_DOCUMENT	Attribute	Removed attribute
_Number	RECORDED_DOCUMENT	Attribute	Removed attribute
_DocumentTitle	RECORDED_DOCUMENT	Attribute	Removed attribute
_RecordingJurisdictionName	RECORDED_DOCUMENT	Attribute	Removed attribute
_SignatoryUnparsedName	PRIA_SIGNATURE	Attribute	Removed attribute
_UnparsedName	NOTARY	Attribute	Removed attribute
_CommissionCity	NOTARY	Attribute	Removed attribute
_PRIAVersion	NOTARY	Attribute	Removed attribute
_CommisionBondNumber	NOTARY	Attribute	Removed attribute
_CERTIFICATE	NOTARY	Element	Removed element
_SigningDate	_CERTIFICATE	Attribute	Removed attribute

997
998
999
1000
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
1011
1012
1013
1014

_SigningCounty	_CERTIFICATE	Attribute	Removed attribute
_SigningState	_CERTIFICATE	Attribute	Removed attribute
_SignerFirstName	_CERTIFICATE	Attribute	Removed attribute
_SignerMiddleName	_CERTIFICATE	Attribute	Removed attribute
_SignerLastName	_CERTIFICATE	Attribute	Removed attribute
_SignerNameSuffix	_CERTIFICATE	Attribute	Removed attribute
_SignerUnparsedName	_CERTIFICATE	Attribute	Removed attribute
_SignerTitle	_CERTIFICATE	Attribute	Removed attribute
_SignerCompanyName	_CERTIFICATE	Attribute	Removed attribute
_SIGNER_IDENTIFICATION	_CERTIFICATE	Element	Removed element
_Type	_CERTIFICATE	Attribute	Removed attribute
_Description	_CERTIFICATE	Attribute	Removed attribute
_NumberOfPages	RECORDING_ENDORSEMENT	Attribute	Removed attribute
_EndorsementIdentifier	RECORDING_ENDORSEMENT	Attribute	Removed attribute
_VOLUME_PAGE	RECORDING_ENDORSEMENT	Element	Removed element
_Number	_VOLUME_PAGE	Attribute	Removed attribute
_TotalAmount	_Fees	Attribute	Removed attribute
_MN_Total_Fees	extension to PRIA_DOCUMENT	Attribute	Removed attribute

Satisfaction

Version 2.0							Version 1.1			
Line #	Name	Parent Element	Element/Attribute	Definition	Required/Optional	Cardinality	Name	Parent Element	Element/Attribute	Change
1	Root									
2	Document	Root	Element	The root element for the Satisfaction schema.	Required	One	PRIA_DOCUMENT	DOCUMENT_RECORDATION	Element	Renamed element, made Document Root element instead of DOCUMENT_RECORDATION
3	Document									
4	Id	Document	Attribute	The ID used when referencing a portion of the document that a person is signing.	Required	One	_MN_PRIADocumentID	Extension from PRIA_DOCUMENT	Attribute	moved to attribute on Document
5	Version	Document	Attribute	The version of the document's schema.	Required	One	_PRIAVersion	PRIA_DOCUMENT	Attribute	Renamed attribute
6	Header	Document	Element	Contains specific information about the document (eg. Type and subtype, property code, etc.)	Required	One	N/A			Added element
7	Grantor	Document	Element	Entity giving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple	GRANTOR	PRIA_DOCUMENT	Element	Renamed element
8	Grantee	Document	Element	Entity receiving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple	GRANTEE	PRIA_DOCUMENT	Element	Renamed element
9	Property	Document	Element	The information pertaining to the subject property.	Optional	Multiple	PROPERTY	PRIA_DOCUMENT	Element	Renamed element
10	Parties	Document	Element	The parties in the document. (eg. Return To, Drafted By)	Required	One	PARTIES	PRIA_DOCUMENT	Element	Renamed element
11	Execution	Document	Element	The information detailing the execution of the document.	Required	One	EXECUTION	PRIA_DOCUMENT	Element	Renamed element
12	RecordedDocument	Document	Element	The information about the recorded reference documents. (eg. the previously recorded Mortgage document that is being satisfied.)	Required	Multiple	RECORDED_DOCUMENT	PRIA_DOCUMENT	Element	Renamed element
13	Notary	Document	Element	The information detailing the specifics about the Notary's authorization.	Required	Multiple	NOTARY	PRIA_DOCUMENT	Element	Renamed element
14	CountyInformation	Document	Element	The information detailing the specifics about the recording or rejecting of the document (eg. document number, data and time or the reasons for rejecting)	Optional	Multiple	RECORDING_ENDORSEMENT	PRIA_DOCUMENT	Element	Renamed element
15	EmbeddedFile	Document	Element	The information detailing the files that accompany the document. (eg. the HTML view or the scanned in image of the Well Certificate)	Required	Multiple	EMBEDDED_FILE_MN_VIEW	PRIA_DOCUMENT extension to RECORDING_ENDORSEMENT	Element Element	Renamed element Renamed and restructed element
16	Header									
17	PropertyCode	Header	Element	The type of the subject property (Abstract or Torrens)	Required	One	_MN_PropertyCode	Extension from PRIA_DOCUMENT	Attribute	created element
18	Code	Header	Element	Abbreviated code of the document.	Required	One	_Code	PRIA_DOCUMENT	Attribute	created element
19	Type	Header	Element	Identifies the type of document	Required	One	_Type	PRIA_DOCUMENT	Attribute	created element
20	Subtype	Header	Element	Identifies a subtype of the type of the document used to help identify the type of the Grantor. (eg. by Individual, by Corporation or Parnership)	Optional	One	MN_SubType	Extension from PRIA_DOCUMENT	Attribute	created element

21	ReferenceInformation	Header	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple	_MN_REFERENCE	Extension from PRIA_DOCUMENT	Element	renamed and moved
22	Reference Information									
23	Identifier	Reference Information	Element	The identifier of the value.	Required	Multiple	_MN_Type	_MN_REFERENCE	Attribute	renamed and moved to element
24	Value	Reference Information	Element	The value representing the identifier	Required	Multiple	_MN_VALUE	_MN_REFERENCE	Attribute	renamed and moved to element
25	Comment	Reference Information	Element	Allows a more detailed description about the subject.	Optional	One	N/A			created element
26	Execution									
27	InstrumentDate	Execution	Element	Date of the document.	Required	One	_Date	EXECUTION	Attribute	renamed and moved to element
28	County	Execution	Element	The county where the document was notarized.	Required	One	_County	EXECUTION	Attribute	renamed and moved to element
29	State	Execution	Element	The state where the document was notarized	Required	One	_State	EXECUTION	Attribute	renamed and moved to element
30	SignatureDate	Execution	Element	The date the document was signed.	Required	One	_SignatureDate	PRIA_SIGNATURE	Attribute	renamed and moved to element
31	Grantor									
32	EntityName	Grantor	Element	The information for the names of the respective party.	Required	One				
33	Correspondence	Grantor	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
34	EntityName									
35	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
36	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple				
37	Organization									
38	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_NAME_GROUP	extension to GRANTOR	Element	renamed and restructured
39	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One				
40	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
41	Name									
42	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_NAME_GROUP	Attribute	renamed and moved to element
43	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS _MN_OrganizationName	_MN_NAME_GROUP _MN_ALIAS	Element Attribute	renamed renamed and moved to element
44	OtherName									
45	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
46	RegulatoryEntity									

47	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple	_MN_SignatoryEntityType	extension of PRIA_SIGNATURES	Attribute	renamed
48	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple	_MN_SignatoryOrganizedUnderTheLawsOfJurisdictionName	extension attribute of PRIA_SIGNATURES	Attribute	renamed
49	RelatedOrganization									
50	RelatedRole	Organization	Attribute	The information defining the relationship between the two entities.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
51	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element
52	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
53	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
54	Name									
55	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
56	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
57	OtherName									
58	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
59	Regual									
60	Identifier		Element	The identifier of the value.	Required	Multiple				
61	Value		Element	The value representing the identifier	Required	Multiple				
62	IndividualGroup									
63	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One	_MN_RelationshipStatus	extension from GRANTOR	Attribute	renamed and moved
64	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
65	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
66	Name									
67	PrimaryName	Name	Element	The commonly used name for an individual.		One	_MN_NAME_GROUP	extension from GRANTOR	Element	renamed and restructured
68	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple	_MN_ALIAS	_MN_NAME_GROUP	Element	renamed and restructured
69	PrimaryName									
70	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_NAME_GROUP	Attribute	renamed and moved to element
71	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_NAME_GROUP	Attribute	renamed and moved to element
72	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_NAME_GROUP	Attribute	renamed and moved to element
73	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_NAME_GROUP	Attribute	renamed and moved to element
74	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_NAME_GROUP	Attribute	renamed and moved to element
75	OtherName									
76	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_ALIAS	Attribute	renamed and moved to element

77	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_ALIAS	Attribute	renamed and moved to element
78	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_ALIAS	Attribute	renamed and moved to element
79	LastName	OtherName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_ALIAS	Attribute	renamed and moved to element
80	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_ALIAS	Attribute	renamed and moved to element
81	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
82	Capacity									
83	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple	_Capacity	GRANTOR	Attribute	renamed and moved to element
84	Value	Capacity	Element	The value representing the identifier	Required	Multiple	_MN_CapacityComment	extension from GRANTOR	Attribute	renamed and moved to element
85	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
86	Correspondence									
87	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
88	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
89	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple	_MN_COMMUNICATION	extension from GRANTOR	Element	renamed
90	Address									
91	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
92	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_MN_StreetAddress _MN_StreetAddress2	extension from GRANTOR	Attribute	renamed, restructured and moved to element
93	City	Address	Element	City of the address	Required	One	_MN_City	extension from GRANTOR	Attribute	renamed and moved to element
94	Township	Address	Element	Township of the address	Optional	One				
95	County	Address	Element	County of the address	Optional	One	_MN_County	extension from GRANTOR	Attribute	renamed and moved to element
96	State	Address	Element	State of the address	Required	One	_MN_State	extension from GRANTOR	Attribute	renamed and moved to element
97	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_MN_PostalCode	extension from GRANTOR	Attribute	renamed and moved to element
98	Country	Address	Element	Country of the address	Optional	One	_MN_Country	extension from GRANTOR	Attribute	renamed and moved to element
99	City									
100	Code	City	Attribute	The assigned code of the city	Optional	One				
101	Township									
102	Code	Township	Attribute	The assigned code of the township	Optional	One				
103	County									
104	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
105	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_CountyFIPSCode	extension from GRANTOR	Attribute	renamed and moved
106	State									
107	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
108	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_StateFIPSCode	extension from GRANTOR	Attribute	renamed and moved
109	Country									
110	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_MN_CountryCode	extension from GRANTOR	Attribute	renamed and moved

111	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
112	Communication									
113	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_MN_Method	_MN_COMMUNICATION	Attribute	renamed and moved to element
114	Value	Communication	Element	The value representing the identifier	Required	Multiple	_MN_ContactPhoneNumber _MN_Code	extension from GRANTOR _MN_COMMUNICATION	Attribute Attribute	renamed and restructured renamed and moved to element
115	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
116	Grantee									
117	EntityName	Grantee	Element	The information for the names of the respective party.	Required	One				
118	Correspondence	Grantee	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
119	EntityName									
120	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple				
121	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE, JOHN DOE, JOE DOE, AD WIFE AND CHILDREN)						
122	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
123	Organization									
124	Name	Organization	Element	The information about all the different names for an organization.	Required	One	_MN_NAME_GROUP	extension to GRANTOR	Element	renamed and restructured
125	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
126	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
127	Name									
128	PrimaryName	Name	Element	The primary name of an organization.	Required	One	MN_OrganizationName	_MN_NAME_GROUP	Attribute	renamed and moved to element
129	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple	_MN_ALIAS _MN_OrganizationName	_MN_NAME_GROUP _MN_ALIAS	Element Attribute	renamed renamed and moved to element
130	OtherName									
131	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
132	RegulatoryEntity									
133	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple	_MN_SignatoryEntityType	extension of PRIA_SIGNATURES	Attribute	renamed
134	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple	_MN_SignatoryOrganizedUnderTheLawsOfJurisdiction Name	extension attribute of PRIA_SIGNATURES	Attribute	renamed
135	RelatedOrganization									
136	RelatedRole	RelatedOrganization	Attribute	The information about all the relationship between organizations.	Required	One	_MN_RelationshipRole	_MN_RELATED	Attribute	renamed
137	Name	RelatedOrganization	Element	The information about all the different names for an organization.	Required	One	_MN_OrganizationName	_MN_RELATED	Attribute	renamed and moved to element

138	RegulatoryEntity	RelatedOrganization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
139	RelatedOrganization	RelatedOrganization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple	_MN_RELATED	_MN_NAME_GROUP	Element	renamed
140	Name									
141	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
142	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
143	OtherName									
144	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed
145	RegulatoryEntity									
146	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
147	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
148	IndividualGroup									
149	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One	_MN_RelationshipStatus	extension from GRANTOR	Attribute	renamed and moved
150	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple				
151	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One				
152	Name									
153	PrimaryName	Name	Element	The commonly used name for an individual.		One	_MN_NAME_GROUP	extension from GRANTOR	Element	renamed and restructured
154	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple	_MN_ALIAS	_MN_NAME_GROUP	Element	renamed and restructured
155	PrimaryName									
156	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_NAME_GROUP	Attribute	renamed and moved to element
157	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_NAME_GROUP	Attribute	renamed and moved to element
158	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_NAME_GROUP	Attribute	renamed and moved to element
159	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_NAME_GROUP	Attribute	renamed and moved to element
160	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_NAME_GROUP	Attribute	renamed and moved to element
161	OtherName									
162	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One	_MN_NamePrefix	_MN_ALIAS	Attribute	renamed and moved to element
163	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple	_MN_FirstName	_MN_ALIAS	Attribute	renamed and moved to element
164	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple	_MN_MiddleName	_MN_ALIAS	Attribute	renamed and moved to element
165	LastName	OtherName	Element	The last name of an individual	Required	Multiple	_MN_LastName	_MN_ALIAS	Attribute	renamed and moved to element
166	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_MN_NameSuffix	_MN_ALIAS	Attribute	renamed and moved to element
167	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One	_MN_Type	_MN_ALIAS	Attribute	renamed

168	Capacity									
169	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple	_Capacity	GRANTOR	Attribute	renamed and moved to element
170	Value	Capacity	Element	The value representing the identifier	Required	Multiple	_MN_CapacityComment	extension from GRANTOR	Attribute	renamed and moved to element
171	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
172	Correspondence									
173	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
174	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple				
175	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple	_MN_COMMUNICATION	extension from GRANTOR	Element	renamed
176	Address									
177	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
178	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_MN_StreetAddress _MN_StreetAddress2	extension from GRANTOR	Attribute	renamed, restructured and moved to element
179	City	Address	Element	City of the address	Required	One	_MN_City	extension from GRANTOR	Attribute	renamed and moved to element
180	Township	Address	Element	Township of the address	Optional	One				
181	County	Address	Element	County of the address	Optional	One	_MN_County	extension from GRANTOR	Attribute	renamed and moved to element
182	State	Address	Element	State of the address	Required	One	_MN_State	extension from GRANTOR	Attribute	renamed and moved to element
183	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_MN_PostalCode	extension from GRANTOR	Attribute	renamed and moved to element
184	Country	Address	Element	Country of the address	Optional	One	_MN_Country	extension from GRANTOR	Attribute	renamed and moved to element
185	City									
186	Code	City	Attribute	The assigned code of the city	Optional	One				
187	Township									
188	Code	Township	Attribute	The assigned code of the township	Optional	One				
189	County									
190	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
191	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_CountyFIPSCode	extension from GRANTOR	Attribute	renamed and moved
192	State									
193	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
194	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_MN_StateFIPSCode	extension from GRANTOR	Attribute	renamed and moved
195	Country									
196	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_MN_CountryCode	extension from GRANTOR	Attribute	renamed and moved
197	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
198	Communication									
199	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_MN_Method	_MN_COMMUNICATION	Attribute	renamed and moved to element
200	Value	Communication	Element	The value representing the identifier	Required	Multiple	_MN_ContactPhoneNumber _MN_Code	extension from GRANTOR _MN_COMMUNICATION	Attribute Attribute	renamed and restructured renamed and moved to element

201	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
202	Property									
203	LegalDescription	Property	Element	Identifies the legal description information for the property.	Required	Multiple	_LEGAL_DESCRIPTION	PROPERTY	Element	renamed
204	PropertyCode	Property	Element	The type of the subject property (eg. Abstract or	Required	One	_MN_PropertyCode	extension attribute of	Attribute	renamed and moved to
205	Address	Property	Element	The address of the subject property.	Required	Multiple				
206	LegalDescription									
207	ParcelIdentificationNumber	LegalDescription	Element	The identification number (commonly referred to as PIN) of the subject property.	Required	Multiple	_PARCEL_IDENTIFICATION _NumberIdentifier	_LEGAL_DESCRIPTION _PARCEL_IDENTIFICATION	Element Attribute	renamed removed, uses element instead
208	Comment	LegalDescription	Element	Allows a more detailed description about the subject.	Optional	One				
209	SurveyType	LegalDescription	Element	The platted and/or unplatted information of the subject property.	Required	One				
210	SurveyType									
211	PlattedLand	SurveyType	Element	Platted legal description of subject property.	At least one is required.	Multiple	PLATTED_LAND	_LEGAL_DESCRIPTION	Element	renamed
212	UnplattedLand	SurveyType	Element	Unplatted legal description of subject property.			UNPLATTED_LAND	_LEGAL_DESCRIPTION	Element	renamed
213	PlattedLand									
214	Type	PlattedLand	Attribute	Describes the type of platted land survey. (eg. Subdivision, condominium, CIC or RLS)	Required	One	_Type	PLATTED_LAND	Attribute	renamed
215	Name	PlattedLand	Element	Subdivision name of a platted subdivisions, condominium, CIC or RLS.	Required	One	PropertySectionIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
216	Lot	PlattedLand	Element	Lot unit as shown on Plat on file with county	Optional	One	PropertyLotIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
217	Tract	PlattedLand	Element	Tract number designated on a Registered Land survey	Optional	One	PropertyTractIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
218	Block	PlattedLand	Element	Block unit as shown on Plat on file with county	Optional	One	PropertyBlockIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
219	Code	PlattedLand	Element	A coded identification number assigned to a plat by a county to be used to identify a plat in place of a subdivision name or platbook and page	Optional	One	_PlatCodeValue	PLATTED_LAND	Attribute	renamed and moved to element
220	Building	PlattedLand	Element	Building identifier of a buidling in a condominium or timeshare condominium	Optional	One	_BuildingNumberIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
221	AppurtenanceInformation	PlattedLand	Element	Accessory objects, such as a parking garage, parking psace, storage shed or boat slip	Optional	Multiple				
222	Unit	PlattedLand	Element	Unit Identifier or CECT (Common Element Certificate Title) number of a building in a condominium or timeshare condominium.	Optional	One	_UnitNumberIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
223	PartOfFlag	PlattedLand	Element	Indicator used to reveal if the property is only part of the platted legal description. The Comment element can be used to further describe the property boudaries.	Required	One	_MN_PartOfFlag	extension attribute of element PLATTED_LAND	Attribute	renamed
224	OtherLot	PlattedLand	Element	Allows for descriptor of another lot (eg. Parks)	Optional	One	_MN_OtherLot	extension attribute of _LEGAL_DESCRIPTION	Attribute	renamed and moved to element
225	Comment	PlattedLand	Element	Allows a more detailed description about the subject.	Optional	One				
226	AppurtenanceInformation									
227	Identifier	AppurtenanceInformation	Element	The identifier of the value.	Required	Multiple	_AppurtenanceIdentifier	PLATTED_LAND	Attribute	renamed and moved to element
228	Value	AppurtenanceInformation	Element	The value representing the identifier	Required	Multiple	_AppurtenanceDescription	PLATTED_LAND	Attribute	renamed and moved to element
229	Comment	AppurtenanceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
230	UnplattedLand									

231	Type	UnplattedLand	Attribute	Describes the type of unplatted land survey. (eg. Government Survey or Land)	Required	One	_Type	UNPLATTED_LAND	Attribute	renamed
232	Section	UnplattedLand	Element	The Government Survey section in which the property is located, numbered 1 through 36 though some jurisdictions have up to 100 sections	Required	One	_SectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
233	Township	UnplattedLand	Element	The Government Survey Township coordinate and direction code of Property, e.g. 37N	Required	One	PropertyTownshipIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
234	Range	UnplattedLand	Element	The Government Survey Range doordinate and direction code of the property, e.g. 12E	Required	One	PropertyRangeIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
235	QuarterSection	UnplattedLand	Element	The quarter section in which the property is located. Based on Government Suvey system.	Optional	One	_QuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
236	QuarterQuarterSection	UnplattedLand	Element	The quarter section within the first quarter section in which the property is located. Based on Government Survey system.	Optional	One	_MN_QuarterQuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
237	QuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the second quarter section in which the property is located. Based on Government Survey system.	Optional	One	_MN_QuarterQuarterQuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
238	QuarterQuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the third quarter section in which the property is located. Based on Government Survey system.	Optional	One	_MN_QuarterQuarterQuarterQuarterSectionIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
239	GovernmentLot	UnplattedLand	Element	An Identifier of an irregular parcel of land.	Optional	One	_AbstractNumberIdentifier	UNPLATTED_LAND	Attribute	renamed and moved to element
240	Comment	UnplattedLand	Element	Allows a more detailed description about the subject.	Optional	One	_MetesAndBoundsRemainingText	UNPLATTED_LAND	Attribute	renamed and moved to element
241	Address									
242	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
243	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_StreetAddress _StreetAddress2	PROPERTY	Attribute	renamed, restructueed and moved to element
244	City	Address	Element	City of the address	Optional	One	_City	PROPERTY	Attribute	renamed and moved to element
245	Township	Address	Element	Township of the address	Optional	One				
246	County	Address	Element	County of the address	Required	One	_State	PROPERTY	Attribute	renamed and moved to element
247	State	Address	Element	State of the address	Required	One	_County	PROPERTY	Attribute	renamed and moved to element
248	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_PostalCode	PROPERTY	Attribute	renamed and moved to element
249	Country	Address	Element	Country of the address	Optional	One	_MN_Country	extension attribute of PROPERTY	Attribute	renamed and moved to element
250	City									
251	Code	City	Attribute	The assigned code of the city	Optional	One				
252	Township									
253	Code	Township	Attribute	The assigned code of the township	Optional	One				
254	County									
255	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
256	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_CountyFIPSCode	_IDENTIFICATION	Attribute	renamed and moved
257	State									
258	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
259	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_IDENTIFICATION	Attribute	renamed and moved

260	Country									
261	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_MN_CountryCode	extension attribute of PROPERTY	Attribute	renamed and moved attribute
262	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
263	Parties									
264	ReturnToParty	Parties	Element	Party where recorded document will eventually be returned to. This may not always be the sumitting party.	Optional	Multiple	_RETURN_TO_PARTY	PARTIES	Element	renamed
265	DraftedOrPreparedByParty	Parties	Element	Party who prepared the document.	Required	Multiple	_PREPATED_BY_PARTY	PARTIES	Element	renamed
266	BillToParty	Parties	Element	Party responsible for payment of all fees associated with the recording of the document.	Optional	Multiple	_BILL_TO_PARTY	PARTIES	Element	renamed
267	SignedByParty	Parties	Element	The information of the people signing the document.	Required	One				
268	DraftedOrPreparedByParty									
269	EntityName	DraftedOrPreparedByParty	Element	The information for the names of the respective party.	Required	One				
270	Correspondence	DraftedOrPreparedByParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
271	EntityName									
272	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple				
273	Individual	EntityName	Element	A person's name and title.						
274	Individual									
275	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
276	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
277	Organization									
278	PrimaryName	Organization	Element	The name of the organization.	Required	One	_OrganizationName	_RETURN_TO_PARTY	Attribute	renamed
279	Individual	Organization	Element	The representative for the organization.	Optional	Multiple				
280	Individual									
281	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
282	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
283	Correspondence									
284	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
285	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple				
286	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple	_MN_COMMUNICATION	extension of _PREPARED_BY_PARTY	element	renamed
287	Address									
288	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
289	StreetAddress	Address	Element	Street Address of the address	Required	Multiple	_StreetAddress _StreetAddress2	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
290	City	Address	Element	City of the address	Required	One	_City	_RETURN_TO_PARTY	Attribute	renamed and moved to element
291	Township	Address	Element	Township of the address	Optional	One				

292	County	Address	Element	County of the address	Optional	One	_County	_RETURN_TO_PARTY	Attribute	renamed and moved to element
293	State	Address	Element	State of the address	Required	One	_State	_RETURN_TO_PARTY	Attribute	renamed and moved to element
294	ZipCode	Address	Element	Zipcode/Zip code of the address	Required	One	_PostalCode	_RETURN_TO_PARTY	Attribute	renamed and moved to element
295	Country	Address	Element	Country of the address	Optional	One	_Country	_RETURN_TO_PARTY	Attribute	renamed and moved to element
296	City									
297	Code	City	Attribute	The assigned code of the city	Optional	One				
298	Township									
299	Code	Township	Attribute	The assigned code of the township	Optional	One				
300	County									
301	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
302	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_CountyFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
303	State									
304	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
305	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
306	Country									
307	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_CountryCode	_RETURN_TO_PARTY	Attribute	renamed
308	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
309	Communication									
310	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_ElectronicRoutingMethod _MN_Method	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
311	Value	Communication	Element	The value representing the identifier	Required	Multiple	_ContactPhoneNumber _ElectronicRoutingAddress _MN_Code	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
312	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
313	ReturnToParty									
314	EntityName	ReturnToParty	Element	The information for the names of the respective party.	Required	One				
315	Correspondence	ReturnToParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
316	EntityName									
317	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple				
318	Individual	EntityName	Element	A person's name and title.						
319	Individual									
320	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
321	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
322	Organization									
323	PrimaryName	Organization	Element	The name of the organization.	Required	One	_OrganizationName	_RETURN_TO_PARTY	Attribute	renamed
324	Individual	Organization	Element	The representative for the organization.	Optional	Multiple				
325	Individual									

326	PrimaryName	Individual	Element	The unparsed name of the person	Required	One	_UnparsedName	_RETURN_TO_PARTY	Attribute	renamed and moved to element
327	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One	_Title	_RETURN_TO_PARTY	Attribute	renamed and moved to element
328	Correspondence									
329	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One				
330	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple				
331	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple				
332	Address									
333	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
334	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple	_StreetAddress _StreetAddress2	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
335	City	Address	Element	City of the address	Required	One	_City	_RETURN_TO_PARTY	Attribute	renamed and moved to element
336	Township	Address	Element	Township of the address	Optional	One				
337	County	Address	Element	County of the address	Optional	One	_County	_RETURN_TO_PARTY	Attribute	renamed and moved to element
338	State	Address	Element	State of the address	Required	One	_State	_RETURN_TO_PARTY	Attribute	renamed and moved to element
339	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One	_PostalCode	_RETURN_TO_PARTY	Attribute	renamed and moved to element
340	Country	Address	Element	Country of the address	Optional	One	_Country	_RETURN_TO_PARTY	Attribute	renamed and moved to element
341	City									
342	Code	City	Attribute	The assigned code of the city	Optional	One				
343	Township									
344	Code	Township	Attribute	The assigned code of the township	Optional	One				
345	County									
346	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
347	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_CountyFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
348	State									
349	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
350	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
351	Country									
352	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_CountryCode	_RETURN_TO_PARTY	Attribute	renamed
353	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
354	Communication									
355	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_ElectronicRoutingMethod	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
356	Value	Communication	Element	The value representing the identifier	Required	Multiple	_ContactPhoneNumber _ElectronicRoutingAddress	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
357	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
358	BillToParty									
359	EntityName	BillToParty	Element	The information for the names of the respective party.	Required	One				

394	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
395	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One	_StateFIPSCode	_RETURN_TO_PARTY	Attribute	renamed
396	Country									
397	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One	_CountryCode	_RETURN_TO_PARTY	Attribute	renamed
398	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
399	Communication									
400	Identifier	Communication	Element	The identifier of the value.	Required	Multiple	_ElectronicRoutingMethod _MN_Method	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
401	Value	Communication	Element	The value representing the identifier	Required	Multiple	_ContactPhoneNumber _ElectronicRoutingAddress _MN_Code	_RETURN_TO_PARTY	Attribute	renamed, restructured and moved to element
402	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
403	SignedByParty									
404	Id	SignedByParty	Attribute	The ID referenced when notarizing or witnessing a signature or group of signatures.	Required	One				
405	SigningEntityGroup	SignedByParty	Element	Groups the individuals that are signing the document for the same purpose (ie. endorser, witness)	Required	Multiple				
406	SigningEntityGroup									
407	Type	SigningEntityGroup	Attribute	The type of the group of signatures. (eg. "Endorser" or "Witness")	Required	Multiple				
408	Id	SigningEntityGroup	Attribute	The ID reference when witnessing or notarizing a signature or group of signatures.	Required	Multiple				
409	SigningEntity	SigningEntityGroup	Element	The entity(s) that are signing the document.	Required	Multiple				
410	SigningEntity									
411	EntityName	SigningEntity	Element	The information for the names of the respective party.	Required					
412	Correspondence	SigningEntity	Element	The information for the address and communication means for the respective party.	Optional	Multiple				
413	EntityName									
414	Organization	EntityName	Element	The name of the organization and its signing representative(s).	Choice of Organization or Individual	Multiple				
415	Individual	EntityName	Element	The person's name and title for signing purposes.		Multiple				
416	Organization									
417	Name	Organization	Element	The information about all the different names for an organization.	Optional	One				
418	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One				
419	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple				
420	Seal	Organization	Element	The seal of the person or organization signing.	Optional	One	_MN_SignatorySeal	PRIA_SIGNATURE	Attribute	renamed and moved to element
421	Individual	Organization	Element	The information about the person who is signing the document for the organization. (eg. JANE DOE, OPERATIONS OFFICER)	Required	Multiple				

422	Name									
423	PrimaryName	Name	Element	The primary name of an organization.	Required	One	_SignatoryOrganizationName_MN_SignatoryOrganizationName	PRIA_SIGNATURE	Attribute	renamed and moved to element
424	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
425	OtherName									
426	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One				
427	RegulatoryEntity									
428	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple				
429	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple				
430	RelatedOrganization									
431	RelatedRole	RelatedOrganization	Attribute	The information about all the relationship between organizations.	Required	One				
432	Name	Organization	Element	The information about all the different names for an organization.	Required	One				
433	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One				
434	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple				
435	Name									
436	PrimaryName	Name	Element	The primary name of an organization.	Required	One				
437	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple				
438	OtherName									
439	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One				
440	RegulatoryEntity									
441	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple	_MN_SignatoryEntityType	extension attribute of PRIA_SIGNATURES	Attribute	renamed
442	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple	_MN_SignatoryOrganizedUnderTheLawsOfJurisdictionName	extension attribute of PRIA_SIGNATURES	Attribute	renamed
443	Individual									
444	PrimaryName	Individual	Element	The information about the person who is signing	Required	One				
445	Title	Individual	Element	The title of the person. (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One	_SignatoryOrganizationPosition	PRIA_SIGNATURE	Attribute	renamed and moved to element
446	Signature	Individual	Element	Information detailing the signature of the person.	Required	One	_ELECTRONIC_SIGNATURE_RE_MN_PRIASignatureRootID	PRIA_SIGNATURE	Element Attribute	renamed and restructured
447	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One				
448	PrimaryName									
449	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
450	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple	_SignatoryFirstName	PRIA_SIGNATURE	Attribute	renamed and moved to element
451	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_SignatoryMiddleName	PRIA_SIGNATURE	Attribute	renamed and moved to element

452	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_SignatoryLastName	PRIA_SIGNATURE	Attribute	renamed and moved to element
453	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_SignatoryNameSuffix	PRIA_SIGNATURE	Attribute	renamed and moved to element
454	Individual									
455	Name	Individual	Element	The unparsed name of the person	Required	One				
456	Capacity	Individual	Element	The capacity of the person (eg. Guardian, trustee)	Optional	One				
457	Signature	Individual	Element	Information detailing the signature of the person.	Required	One	_ELECTRONIC_SIGNATURE_MN_PRIASignatureRootID	PRIA_SIGNATURE	Element Attribute	renamed and restructured
458	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One				
459	Name									
460	PrimaryName	Name	Element	The commonly used name for an individual.	Required	One				
461	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)	Optional	Multiple				
462	PrimaryName									
463	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
464	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple	_SignatoryFirstName	PRIA_SIGNATURE	Attribute	renamed and moved to element
465	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_SignatoryMiddleName	PRIA_SIGNATURE	Attribute	renamed and moved to element
466	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_SignatoryLastName	PRIA_SIGNATURE	Attribute	renamed and moved to element
467	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_SignatoryNameSuffix	PRIA_SIGNATURE	Attribute	renamed and moved to element
468	OtherName									
469	Type	OtherName	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One				
470	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
471	FirstName	OtherName	Element	The first name of an individual	Required	Multiple				
472	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple				
473	LastName	OtherName	Element	The last name of an individual	Required	Multiple				
474	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
475	Capacity									
476	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple				
477	Value	Capacity	Element	The value representing the identifier	Required	Multiple	_SignatoryCapacity	PRIA_SIGNATURE	Attribute	renamed, restructured and moved to element
478	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One				
479	Address									
480	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One				
481	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple				
482	City	Address	Element	City of the address	Required	One				
483	Township	Address	Element	Township of the address	Optional	One				
484	County	Address	Element	County of the address	Optional	One				
485	State	Address	Element	State of the address	Required	One				
486	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One				
487	Country	Address	Element	Country of the address	Optional	One				
488	City									

489	Code	City	Attribute	The assigned code of the city	Optional	One				
490	Township									
491	Code	Township	Attribute	The assigned code of the township	Optional	One				
492	County									
493	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One				
494	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
495	State									
496	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One				
497	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
498	Country									
499	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One				
500	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One				
501	Communication									
502	Identifier	Communication	Element	The identifier of the value.	Required	Multiple				
503	Value	Communication	Element	The value representing the identifier	Required	Multiple				
504	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One				
505	Notary									
506	PrimaryName	Notary	Element	Name of the notary.	Required	One				
507	Title	Notary	Element	Title of the notary, or official e.g. Notary Public	Required	One	_Title	NOTARY	Attribute	renamed and moved to element
508	CommissionNumber	Notary	Element	Commission Number assigned to Notary by Authorizing Agency (usually Secretary of State)	Optional	One	_CommissionNumber	NOTARY	Attribute	renamed and moved to element
509	CommissionExpirationDate	Notary	Element	Expiration date of Notary Commission if the PerpetualFlag = 'False'. If the PerpetualFlag = 'True', then date is set to infinity (9999-12-31) to represent the county official's perpetual end date.	Required	One	_CommissionExpirationDate	NOTARY	Attribute	renamed and moved to element
510	CommissionState	Notary	Element	State in which the Notary is commissioned	Required	One	_CommissionState	NOTARY	Attribute	renamed and moved to element
511	CommissionCounty	Notary	Element	County in which the Notary is commissioned	Optional	One	_CommissionCounty	NOTARY	Attribute	renamed and moved to element
512	CommissionCountry	Notary	Element	Country in which the Notary is commissioned	Optional	One				
513	Seal	Notary	Element	The seal of the person signing.	Optional	One	_MN_Seal	extension attribute to Notary	Attribute	renamed and moved to element
514	Signature	Notary	Element	Information detailing the signature of the person.	Required	One	_MN_ELECTRONIC_SIGNATURE _MN_ElectronicSignatureIDRef	extension to Notary	Element Attribute	renamed and restructured
515	CommissionExpiration Date									
516	PerpetualFlag	CommissionExpirationDate	Attribute	Identifies if the commission is perpetual or not. (eg. a person working in the county office would be authorized as long as they are an employee). A notary would not a perpetual commission since they have a commission expiration date.	Required	One				
517	PrimaryName									
518	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				

519	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple	_FirstName	NOTARY	Attribute	renamed and moved to element
520	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple	_MiddleName	NOTARY	Attribute	renamed and moved to element
521	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple	_LastName	NOTARY	Attribute	renamed and moved to element
522	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple	_NameSuffix	NOTARY	Attribute	renamed and moved to element
523	CountyInformation									
524	RecordingEndorsement	CountyInformation	Element	The information about the recording of the document and the fees associated with the recording.	Choice of RecordingEndorsement or Rejection	Multiple				
525	Rejection	CountyInformation	Element	Information detailing the specifics about the rejection of the document.						
526	RecordingEndorsement									
527	RecordedInformation	RecordingEndorsement	Element	The information about the recording of the document.	Required	Multiple				
528	Fees	RecordingEndorsement	Element	The fees associated with the recording of the document.	Required	Multiple	_FEES	RECORDING_ENDORSEMENT		
529	RecordingInformation									
530	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One	_Number	RECORDING_ENDORSEMENT		
531	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One				
532	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One				
533	CertificateOfTitle Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One	_MN_CertificateOfTitleNumber	extension to RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
534	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One	_RecordedCounty	RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
535	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One	_RecordedState	RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
536	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One				
537	RecordedDateAndOrTime	RecordedInformation	Element	The recorded date and time of the document	Required	One	_RecordedDate _RecordedTime	RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
538	Officer	RecordedInformation	Element	Identifies the name of the person signing the document authorizing that it has been recorded.	Required	Multiple				
539	BookOrVolumeInformation									
540	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One				
541	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One	_VolumeType _Volume	RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
542	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One				
543	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One				
544	Officer									
545	PrimaryName	Officer	Element	The unparsed name of the person	Required	One	_OfficersName _MN_DeputysName	RECORDING_ENDORSEMENT extension to RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element
546	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One	_MN_OfficersTitle	extension to RECORDING_ENDORSEMENT	Attribute	renamed, restructured and moved to element

547	Signature	Officer	Element	Information detailing the signature of the person.	Required	One				
548	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One				
549	PrimaryName									
550	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
551	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple				
552	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
553	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
554	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
555	Fees									
556	TotalAmount	Fees	Element	The total of all the fees involved in the recording for this office.	Required	One	_TotalAmount	_FEES	Attribute	renamed, restructured and moved to element
557	ProcessingInformation	Fees	Element	The information about the processing of the fees.	Required	One				
558	Fee	Fees	Element	The breakdown of the type and amount of the fees.	Required	Multiple	_FEE	_FEES	Element	renamed and restructured
559	ProcessingInformation									
560	Number	ProcessingInformation	Element	The individual's prefix	Optional	One				
561	Officer	ProcessingInformation	Element	Identifies the name of the person signing the document authorizing for a specific reason in an office.	Optional	Multiple	_MN_ProcessedBy	extension to _Fees	Attribute	renamed, restructured and moved to element
562	DateTime	ProcessingInformation	Element	The individual's last name	Optional	One	_MN_ProcessedDate	extension to _Fees	Attribute	renamed, restructured and moved to element
563	Office	ProcessingInformation	Element	The office that is processing the fees (eg. Recorder, Auditor, Treasurer, etc.)	Required	One				
564	Officer									
565	PrimaryName	Officer	Element	The unparsed name of the person	Required	One				
566	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One				
567	Signature	Officer	Element	Information detailing the signature of the person.	Required	One	_ELECTRONIC_SIGNATURE _MN_ElectronicSignatureRef	extension to RECORDING_ENDORSEMENT	Element Attribute	renamed and restructured
568	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One				
569	PrimaryName									
570	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One				
571	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple				
572	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple				
573	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple				
574	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple				
575	Fee									
576	ExemptFeeFlag	Fee	Attribute	The indicator that the person or organization was exempt from paying the fee.	Required	One	_EXEMPTIONS	RECORDING_ENDORSEMENT	Element	renamed and restructured
577	Identifier	Fee	Element	The identifier of the value.	Required	Multiple	_Description	_FEE	Attribute	renamed and moved to
578	Value	Fee	Element	The value representing the identifier	Required	Multiple	_Amount	_FEE	Attribute	renamed and moved to element
579	Comment	Fee	Element	Allows a more detailed description about the subject.	Optional	One				
580	Rejection									
581	County	Rejection	Element	The county that rejected the document	Required	One				
582	State	Rejection	Element	The state that rejected the document.	Required	One				
583	RejectInformation	Rejection	Element	The details about the reject information.	Required	Multiple				

584	RejectInformation									
585	Office	RejectInformation	Element	The Office (County Recorder, Registrar of Titles, Auditor, etc.) that the document was rejected in	Required	One				
586	Officer	RejectInformation	Element	The Officer that the document was rejected by	Optional	One				
587	Date and Time	RejectInformation	Element	The date and time that the document was rejected	Optional	One				
588	Reason	RejectInformation	Element	The reason(s) why the document was rejected. (eg. Identifier = '010', Value = 'wrong county')	Required	Multiple				
589	Officer									
590	PrimaryName	Officer	Element	The unparsed name of the person	Optional	One	_MN_RejectorsName	extension to RECORDING_ENDORSE	Attribute	renamed and moved to element
591	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One				
592	Reason									
593	Identifier	Reason	Element	The identifier of the value.	Optional	Multiple	_MN_Code	extension to RECORDING_ENDORSE	Attribute	renamed and moved to element
594	Value	Reason	Element	The value representing the identifier	Required	Multiple	_MN_Reason	extension to RECORDING_ENDORSEMENT	Attribute	renamed and moved to element
595	Comment	Reason	Element	Allows a more detailed description about the subject.	Optional	One				
596	RecordedDocument									
597	MortgageReferenceDocument	RecordedDocument	Element	The Mortgage document that is referenced in the document being recorded.	Required	Multiple				
598	MortgageReferenceDocument									
599	RecordedInformation	MortgageReferenceDocument	Element	The information about the recording of the document.	Required	Multiple				
600	SupplementalInformation	MortgageReferenceDocument	Element	Additional recording information for the document	Required	One				
601	RecordedInformation									
602	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One	_InstrumentNumber	RECORDED_DOCUMENT	Attribute	renamed and moved to element
603	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One				
604	Certificate of Title Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One	_MN_CertificateOfTitleNumber	extension attribute of RECORDED_DOCUMENT	Attribute	renamed and moved to element
605	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One	_MN_PropertyCode	extension attribute of RECORDED_DOCUMENT	Attribute	renamed and moved to element
606	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One	_CountyOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
607	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One	_StateOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
608	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One	_OfficeOfRecordationName	RECORDED_DOCUMENT	Attribute	renamed and moved to element
609	RecordedDateAndOrTime	RecordedInformation	Element	The Date and/or time that the document was recorded on.	Required	One				
610	BookOrVolumeInformation									
611	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One	_BookNumber _BookType _BookTypeOtherDescription	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
612	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One	_VolumeNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element

613	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One	_PageNumber	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
614	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One	_MN_EndPageNumber	extension attribute of RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
615	RecordedDateAndOrTime									
616	RecordedDate	RecordedDateAndOrTime	Element	The recorded date of the reference document.	Choice of RecordedDate or RecordedDateTime	One	_RecordingDate	RECORDED_DOCUMENT	Attribute	renamed, restructured and moved to element
617	RecordedDateTime	RecordedDateAndOrTime	Element	The recored date and time of the reference document		One				
618	SupplementalInformation									
619	ReferenceInformation	SupplementalInformation	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple				
620	Code	SupplementalInformation	Element	Abbreviated code of the document.	Required	One	_Code	RECORDED_DOCUMENT	Attribute	renamed and moved to element
621	Type	SupplementalInformation	Element	Identifies the type of document	Required	One	_Type	RECORDED_DOCUMENT	Attribute	renamed and moved to element
622	Instrument Date	SupplementalInformation	Element	Date of the document.	Optional	One	_MN_InstrumentDate	extension attribute of RECORDED_DOCUMENT	Attribute	renamed and moved to element
623	Amount	SupplementalInformation	Element	Information about the amount of the mortgage.	Optional	Multiple				
624	InterestStartDate	SupplementalInformation	Element	The start date of the interest of the mortgage.	Optional	One				
625	ReferenceInformation									
626	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple				
627	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple				
628	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
629	Amount									
630	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple				
631	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple				
632	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One				
633	EmbeddedFile									
634	Type	EmbeddedFile	Attribute	The type of file that is being attached.	Required	One	_MN_Type _Type	_MN_VIEW EMBEDDED_FILE	Attribute	renamed
635	FileType	EmbeddedFile	Attribute	In addition to the MIME Type, identifies the program or application used to create the embedded file (i.e. Adobe Acrobat)	Optional	One				
636	Name	EmbeddedFile	Attribute	Identifies the name of the embedded file (i.e. Satisfaction.pdf)	Optional	One	_Name			
637	Extension	EmbeddedFile	Attribute	Identifies the extension used to identify the embedded file (i.e. PDF, ZIP, HTML)	Optional	One	_Extension	EMBEDDED_FILE	Attribute	Renamed
638	Description	EmbeddedFile	Attribute	Provides additional information about the embedded file.	Optional	One	_Description	EMBEDDED_FILE	Attribute	Renamed
639	MimeType	EmbeddedFile	Attribute	Indicates the Multipurpose Internet Mail Extensions type of the data in the document. A registered list of these types may be downloaded via ftp from: ftp.isi.edu/in-notes/iana/assignments/media-types/media-types. See http://www.isi.edu/in-notes/iana/assignments/media-types/media-types	Required	One	_MimeType	EMBEDDED_FILE	Attribute	Renamed
640	Encoded	EmbeddedFile	Attribute	Indicates if the file has been encoded.	Required	One				
641	EncodingType	EmbeddedFile	Attribute	Specifies the type of encoding used on the embedded file (i.e. Base64)	Optional	One	_EncodingType	EMBEDDED_FILE	Attribute	Renamed

642	Version	EmbeddedFile	Attribute	Identifies additional version information about the embedded file.	Optional	One	_Version	EMBEDDED_FILE	Attribute	Renamed
643	Signature									
644	DigitalSignature	Signature	Element	Identifies the information associated with an XML Signature as defined in the XML Signature Specification published by the World Wide Web Consortium.	One of DigitalSignature, DigitizedSignature, TextSignature or Object Signature	One				
645	DigitizedSignature	Signature	Element	Identifies the information associated with a Digitized Signature, i.e., the image file and the references to elements signed by that image file.		One				
646	TextSignature	Signature	Element	Identifies the information associated with a text signature, i.e., the text captured by an application representing a person's signature and the references to elements signed by that text.		One				
647	ObjectSignature	Signature	Element	Identifies the information associated with an Object Signature, i.e., the external object code the and references to the elements signed by that object code.		One				
648										
649							MORTGAGE_CONSIDERATION	PRIA_DOCUMENT	Element	Removed element
650							OriginalLoanAmount	MORTGAGE_CONSIDERATION	Attribute	Removed attribute
651							_AdvancedFundsAmount	MORTGAGE_CONSIDERATION	Attribute	Removed attribute
652							CONSIDERATION	PRIA_DOCUMENT	Element	Removed element
653							_Description	CONSIDERATION	Attribute	Removed attribute
654							_Amount	CONSIDERATION	Attribute	Removed attribute
655							_City	EXECUTION	Attribute	Removed attribute
656							_MN_UnparsedFIPSCode	extension attribute of GRANTOR	Attribute	Removed attribute
657							_MN_UnparsedName	extension attribute of _MN_NAME_GROUP	Attribute	Removed attribute
658							_MN_UnparsedName	extension attribute of _MN_ALIAS	Attribute	Removed attribute
659							_MN_UnparsedName	extension attribute of _MN_RELATED	Attribute	Removed attribute
660							AccessorsParcelIdenti	PROPERTY	Attribute	Removed attribute
661							PARSED_STREET_ADDRESS	PROPERTY	Element	Removed element
662							_Type	_LEGAL_DESCRIPTION	Attribute	Removed attribute
663							_TypeOtherDescription	_LEGAL_DESCRIPTION	Attribute	Removed attribute
664							_TextDescription	_LEGAL_DESCRIPTION	Attribute	Removed attribute
665							_TypeIdentifier	_PARCEL_IDENTIFICATION	Attribute	Removed attribute
666							_Description	_PARCEL_IDENTIFICATION	Attribute	Removed attribute
667							_PlatBookIdentifier	PLATTED_LAND	Attribute	Removed attribute
668							_PlatPageIdentifier	PLATTED_LAND	Attribute	Removed attribute
669							_PlatInstrumentNumber	PLATTED_LAND	Attribute	Removed attribute
670							_PlatCodeValue	PLATTED_LAND	Attribute	Removed attribute
671							PropertySubdivisionIdentifier	PLATTED_LAND	Attribute	Removed attribute

672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710

_AdditionalParcelIdentifier	PLATTED_LAND	Attribute	Removed attribute
_AdditionalParcelDescription	PLATTED_LAND	Attribute	Removed attribute
_BaseNumber	UNPLATTED_LAND	Attribute	Removed attribute
_MeridianNumber	UNPLATTED_LAND	Attribute	Removed attribute
_BaseAndMeridianIdentifier	UNPLATTED_LAND	Attribute	Removed attribute
_LandGrantIdentifier	UNPLATTED_LAND	Attribute	Removed attribute
_OTHER_LEGAL	_LEGAL_DESCRIPTION	Element	Removed element
_Type	_OTHER_LEGAL	Attribute	Removed attribute
_Description	_OTHER_LEGAL	Attribute	Removed attribute
_UnparsedFIPSCode	_RETURN_TO_PARTY	Attribute	Removed attribute
_TypeOtherDescription	RECORDED_DOCUMENT	Attribute	Removed attribute
_Number	RECORDED_DOCUMENT	Attribute	Removed attribute
_DocumentTitle	RECORDED_DOCUMENT	Attribute	Removed attribute
_RecordingJurisdictionName	RECORDED_DOCUMENT	Attribute	Removed attribute
_SignatoryUnparsedName	PRIA_SIGNATURE	Attribute	Removed attribute
_UnparsedName	NOTARY	Attribute	Removed attribute
_CommissionCity	NOTARY	Attribute	Removed attribute
_PRIAVersion	NOTARY	Attribute	Removed attribute
_CommisionBondNumber	NOTARY	Attribute	Removed attribute
_CERTIFICATE	NOTARY	Element	Removed element
_SigningDate	_CERTIFICATE	Attribute	Removed attribute
_SigningCounty	_CERTIFICATE	Attribute	Removed attribute
_SigningState	_CERTIFICATE	Attribute	Removed attribute
_SignerFirstName	_CERTIFICATE	Attribute	Removed attribute
_SignerMiddleName	_CERTIFICATE	Attribute	Removed attribute
_SignerLastName	_CERTIFICATE	Attribute	Removed attribute
_SignerNameSuffix	_CERTIFICATE	Attribute	Removed attribute
_SignerUnparsedName	_CERTIFICATE	Attribute	Removed attribute
_SignerTitle	_CERTIFICATE	Attribute	Removed attribute
_SignerCompanyName	_CERTIFICATE	Attribute	Removed attribute
_SIGNER_IDENTIFICATION	_CERTIFICATE	Element	Removed element
_Type	_CERTIFICATE	Attribute	Removed attribute
_Description	_CERTIFICATE	Attribute	Removed attribute
_NumberOfPages	RECORDING_ENDORSEMENT	Attribute	Removed attribute
_EndorsementIdentifier	RECORDING_ENDORSEMENT	Attribute	Removed attribute
_VOLUME_PAGE	RECORDING_ENDORSEMENT	Element	Removed element
_Number	_VOLUME_PAGE	Attribute	Removed attribute
_TotalAmount	_Fees	Attribute	Removed attribute
_MN_Total_Fees	extension to PRIA_DOCUMENT	Attribute	Removed attribute

Certificate of Real Estate Value

Line #	Name	Parent Element	Element/Attribute	Definition	Required/Optional	Cardinality
1	Root					
2	Document	Root	Element	The root element for the CRV schema.	Required	One
3	Document					
4	Id	Document	Attribute	The ID used when referencing a portion of the document that a person is signing.	Required	One
5	Version	Document	Attribute	The version of the document's schema.	Required	One
6	Header	Document	Element	Contains specific information about the document (eg. Type and subtype, property code, etc.)	Required	One
7	Buyer	Document	Element	The information for the Buyer of the property	Required	Multiple
8	Seller	Document	Element	The information for the Seller of the property	Required	Multiple
9	Property	Document	Element	The information pertaining to the subject property.	Required	One
10	SignedByParty	Document	Element	The Buyer's Signature or a representative for the Buyer.	Required	Multiple
10	Body	Document	Element	The information identifying the remaining details of the property that was transferred.	Optional	One
	Reject	Document	Element	The reject code(s) and reason(s) to indicate the reason for rejecting the sale from the study. (Field 57 in the 2002 Sales Ratio Study)	Optional	Multiple
11	Header					
12	Code	Header	Element	Abbreviated code of the document.	Required	One
13	Type	Header	Element	Description of the type of document	Required	One
14	ContractOrDeedDate	Header	Element	The Date of the Deed or Contract. (Field 45 in the 2002 Sales Ratio Study)	Required	One
15	AuditorIDNumber	Header	Element	The ID number assigned by the county auditor. This number should be unique and consecutive. (Field 1 in the 2002 Sales Ratio Study).	Required	One
16	AuditorIDSuffix	Header	Element	The alpha suffix to the Auditor ID Number. This is used only when more than one CRV has the same Auditor ID Number. (Field 1A in the 2002 Sales Ratio Study)+E193	Optional	One

17	AuditorDate	Header	Element	The date that the CRV was filed with the county auditor. (Field 55 in the 2002 Sales Ratio Study).	Required	One
18	Buyer					
19	EntityName	Buyer	Element	Identifies the name of the buyer of the property	Required	One
20	Correspondence	Buyer	Element	Indifies the information used to contact the buyer of the property.	Required	Multiple
21	EntityName					
22	Organization	EntityName	Element	Identifies the information of the organization that purchased the property	Choice of Organization or Individual	Multiple
23	Individual	EntityName	Element	Identifies thei nformation of the person(s) that purchased the property		Multiple
24	Organization					
25	PrimaryName	Organization	Element	Identifies the name of the organization that purchased the property. (Field 2 in the 2002 Sales Ratio Study).	Required	One
26	FederalTaxId	Organization	Element	Identifies the Federal Tax ID number of the organization that purchased the property.	Required	One
27	Individual					
28	PrimaryName	Individual	Element	Identifies the person's name that purchased the property. (Field 2 in the 2002 Sales Ratio Study).	Required	One
29	SSN	Individual	Element	Identifies the social security number of the buyer of the property.	Required	One
30	DateOfBirth	Individual	Element	Identifies the date of birth of the buyer of the property.	Required	One
31	SSN					
32	Id	SSN	Attribute	The ID used to encrypt the Social Security Number.	Required	One
33	PrimaryName					
34	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
35	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
36	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
37	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
38	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
39	Correspondence					

40	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
41	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
42	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Required	Multiple
43	Address					
44	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
45	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
46	City	Address	Element	City of the address	Required	One
47	Township	Address	Element	Township of the address	Optional	One
48	County	Address	Element	County of the address	Optional	One
49	State	Address	Element	State of the address	Required	One
50	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
51	Country	Address	Element	Country of the address	Optional	One
52	City					
53	Code	County	Attribute	The assigned code of the city	Optional	One
54	Township					
55	Code	State	Attribute	The assigned code of the township	Optional	One
56	County					
57	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
58	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
59	State					
60	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
61	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
62	Country					
63	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
64	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
65	Communication					
66	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
67	Value	Communication	Element	The value representing the identifier	Required	Multiple
68	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One

69	Seller					
70	EntityName	Seller	Element	Identifies the name of the seller of the property	Required	One
71	Correspondence	Seller	Element	Indifies the information used to contact the seller of the property.	Required	Multiple
72	EntityName					
73	Organization	EntityName	Element	Identifies the information of the organization that sold the property	Choice of Organization or Individual	Multiple
74	Individual	EntityName	Element	Identifies thei nformation of the person(s) that sold the property		Multiple
75	Organization					
76	PrimaryName	Organization	Element	Identifies the name of the organization that sold the property. (Field 3 in the 2002 Sales Ratio Study).	Required	One
77	FederalTaxId	Organization	Element	Identifies the Federal Tax ID number of the organization that sold the property.	Required	One
78	Individual					
79	PrimaryName	Individual	Element	Identifies the person's name that sold the property. (Field 3 in the 2002 Sales Ratio Study).	Required	One
80	SSN	Individual	Element	Identifies the social security number of the seller of the property.	Required	One
81	DateOfBirth	Individual	Element	Identifies the date of birth of the seller of the property.	Required	One
82	PrimaryName					
83	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
84	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
85	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
86	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
87	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
88	Correspondence					
89	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
90	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
91	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
92	Address					

93	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
94	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
95	City	Address	Element	City of the address	Required	One
96	Township	Address	Element	Township of the address	Optional	One
97	County	Address	Element	County of the address	Optional	One
98	State	Address	Element	State of the address	Required	One
99	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
100	Country	Address	Element	Country of the address	Optional	One
101	City					
102	Code	County	Attribute	The assigned code of the city	Optional	One
103	Township					
104	Code	State	Attribute	The assigned code of the township	Optional	One
105	County					
106	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
107	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
108	State					
109	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
110	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
111	Country					
112	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
113	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
114	Communication					
115	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
116	Value	Communication	Element	The value representing the identifier	Required	Multiple
117	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
118	Property					
119	LegalDescription	Property	Element	Identifies the legal description information for the property.	Required	Multiple
120	PropertyCode	Property	Element	The type of the subject property (eg. Abstract or	Optional	One
121	Address	Property	Element	The address of the subject property.	Required	One
122	Legal Description					

123	ParcelIdentificationNumber	LegalDescription	Element	The identification number (commonly referred to as PIN) of the subject property.	Required	Multiple
124	Comment	LegalDescription	Element	Allows a more detailed description about the subject.	Optional	One
125	SurveyType	LegalDescription	Element	The platted and/or unplatted information of the subject property.	Optional	One
126	SurveyType					
127	PlattedLand	SurveyType	Element	Platted legal description of subject property.	At least one is required.	Multiple
128	UnplattedLand	SurveyType	Element	Unplatted legal description of subject property.		
129	PlattedLand					
130	Type	PlattedLand	Attribute	Describes the type of platted land survey. (eg. Subdivision, condominium, CIC or RLS)	Required	One
131	Name	PlattedLand	Element	Subdivision name of a platted subdivisions, condominium, CIC or RLS.	Required	One
132	Lot	PlattedLand	Element	Lot unit as shown on Plat on file with county	Optional	One
133	Tract	PlattedLand	Element	Tract number designated on a Registered Land Survey	Optional	One
134	Block	PlattedLand	Element	Block unit as shown on Plat on file with county	Optional	One
135	Code	PlattedLand	Element	A coded identification number assigned to a plat by a county to be used to identify a plat in place of a subdivision name or platbook and page	Optional	One
136	Building	PlattedLand	Element	Building identifier of a buidling in a condominium or timeshare condominium	Optional	One
137	AppurtenanceInformation	PlattedLand	Element	Accessory objects, such as a parking garage, parking psace, storage shed or boat slip	Optional	Multiple
138	Unit	PlattedLand	Element	Unit Identifier or CECT (Common Element Certificate Title) number of a building in a condominium or timeshare condominium.	Optional	One
139	PartOfFlag	PlattedLand	Element	Indicator used to reveal if the property is only part of the platted legal description. The Comment element can be used to further describe the property boudaries.	Required	One
140	OtherLot	PlattedLand	Element	Allows for descriptor of another lot (eg. Parks)	Optional	One
141	Comment	PlattedLand	Element	Allows a more detailed description about the subject.	Optional	One
142	AppurtenanceInformation					

143	Identifier	AppurtenanceInformation	Element	The identifier of the value.	Required	Multiple
144	Value	AppurtenanceInformation	Element	The value representing the identifier	Required	Multiple
145	Comment	AppurtenanceInformation	Element	Allows a more detailed description about the subject.	Optional	One
146	Unplatted Land					
147	Type	UnplattedLand	Attribute	Describes the type of unplatted land survey. (eg. Government Survey or Land)	Required	One
148	Section	UnplattedLand	Element	The Government Survey section in which the property is located, numbered 1 through 36 though some jurisdictions have up to 100 sections	Required	One
149	Township	UnplattedLand	Element	The Government Survey Township coordinate and direction code of Property, e.g. 37N	Required	One
150	Range	UnplattedLand	Element	The Government Survey Range doordinate and direction code of the property, e.g. 12E	Required	One
151	QuarterSection	UnplattedLand	Element	The quarter section in which the property is located. Based on Government Survey system.	Optional	One
152	QuarterQuarterSection	UnplattedLand	Element	The quarter section within the first quarter section in which the property is located. Based on Government Survey system.	Optional	One
153	QuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the second quarter section in which the property is located. Based on Government Survey system.	Optional	One
154	QuarterQuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the third quarter section in which the property is located. Based on Government Survey system.	Optional	One
155	GovernmentLot	UnplattedLand	Element	An Identifier of an irregular parcel of land.	Optional	One
156	Comment	UnplattedLand	Element	Allows a more detailed description about the subject.	Optional	One
157	Address					
158	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
159	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
160	City	Address	Element	City of the address	Choice of City or Township.	One
161	Township	Address	Element	Township of the address		
162	County	Address	Element	County of the address	Required	One

163	State	Address	Element	State of the address	Optional	One
164	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
165	Country	Address	Element	Country of the address	Optional	One
166	City					
167	Code	County	Attribute	The assigned code of the city	Required	One
168	Township					
169	Code	State	Attribute	The assigned code of the township	Required	One
170	County					
171	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Required	One
172	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
173	State					
174	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
175	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
176	Country					
177	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
178	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
179	SignedByParty					
180	Id	SignedByParty	Attribute	The ID referenced when notarizing or witnessing a signature or group of signatures	Required	One
181	SigningEntityGroup	SignedByParty	Element	Groups the individuals that are signing the document for the same purpose (ie. endorser, witness)	Required	Multiple
171	SigningDate	SignedByParty	Element	The date the party signed the document.	Required	One
172	SigningEntityGroup					
173	Type	SigningEntityGroup	Attribute	The type of the group of signatures. (eg. "Endorser" or "Witness")	Required	Multiple
174	Id	SigningEntityGroup	Attribute	The ID reference when witnessing or notarizing a signature or group of signatures.	Required	Multiple
175	SigningEntity	SigningEntityGroup	Element	The entity(s) that are signing the document.	Required	Multiple
176	SigningEntity					
177	EntityName	SigningEntity	Element	The information for the names of the respective party.	Required	One

178	Correspondence	SigningEntity	Element	The information for the address and communication means for the respective party.	Optional	Multiple
#REF!	EntityName					
#REF!	Organization	EntityName	Element	The name of the organization and its signing representative(s).	Choice of Organization or Individual	Multiple
#REF!	Individual	EntityName	Element	The person's name and title for signing purposes.		Multiple
#REF!	Organization					
#REF!	Name	Organization	Element	The information about all the different names for an organization.	Optional	One
#REF!	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One
#REF!	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
#REF!	Seal	Organization	Element	The seal of the person or organization signing.	Optional	One
#REF!	Individual	Organization	Element	The information about the person who is signing the document for the organization. (eg. JANE DOE, OPERATIONS OFFICER)	Required	Multiple
#REF!	Name					
#REF!	PrimaryName	Name	Element	The primary name of an organization.	Required	One
#REF!	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
#REF!	OtherName					
#REF!	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
#REF!	RegulatoryEntity					
#REF!	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
#REF!	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
#REF!	RelatedOrganization					
#REF!	Name	Organization	Element	The information about all the different names for an organization.	Required	One
#REF!	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One

#REF!	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
#REF!	Name					
#REF!	PrimaryName	Name	Element	The primary name of an organization.	Required	One
#REF!	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
#REF!	OtherName					
#REF!	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
#REF!	RegulatoryEntity					
#REF!	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
#REF!	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
#REF!	Individual					
#REF!	PrimaryName	Individual	Element	The information about the person who is signing	Required	One
#REF!	Title	Individual	Element	The title of the person. (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
#REF!	Signature	Individual	Element	Information detailing the signature of the person.	Required	One
#REF!	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One
#REF!	PrimaryName					
#REF!	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
#REF!	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
#REF!	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
#REF!	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
#REF!	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
#REF!	Individual					
#REF!	Name	Individual	Element	The unparsed name of the person	Required	One
#REF!	Capacity	Individual	Element	The capacity of the person (eg. Guardian, trustee)	Optional	One
#REF!	Signature	Individual	Element	Information detailing the signature of the person.	Required	One
#REF!	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One
#REF!	Name					

#REF!	PrimaryName	Name	Element	The commonly used name for an individual.	Required	One
#REF!	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)	Optional	Multiple
#REF!	PrimaryName					
#REF!	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
#REF!	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
#REF!	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
#REF!	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
#REF!	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
#REF!	OtherName					
#REF!	Type	OtherName	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
#REF!	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
#REF!	FirstName	OtherName	Element	The first name of an individual	Required	Multiple
#REF!	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
#REF!	LastName	OtherName	Element	The last name of an individual	Required	Multiple
#REF!	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
#REF!	Capacity					
#REF!	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
#REF!	Value	Capacity	Element	The value representing the identifier	Required	Multiple
#REF!	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
#REF!	Correspondence					
#REF!	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
#REF!	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
#REF!	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
#REF!	Address					
#REF!	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
#REF!	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
#REF!	City	Address	Element	City of the address	Required	One
#REF!	Township	Address	Element	Township of the address	Optional	One
#REF!	County	Address	Element	County of the address	Optional	One

#REF!	State	Address	Element	State of the address	Required	One
#REF!	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
#REF!	Country	Address	Element	Country of the address	Optional	One
#REF!	County					
#REF!	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
#REF!	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
#REF!	State					
#REF!	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
#REF!	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
#REF!	Country					
#REF!	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
#REF!	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
#REF!	Communication					
#REF!	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
#REF!	Value	Communication	Element	The value representing the identifier	Required	Multiple
#REF!	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
179	Body					
#REF!	FinancialArrangements	Body	Element	Identifies the financial arrangements used to purchase the property.	Required	One
#REF!	Acquisition	Body	Element	The information defining the reason for the acquisition of the property. Only allow one of each type.	Optional	up to 10
#REF!	PropertyTransferred	Body	Element	The information defining the type of property that was transferred. Only allow one of each type.	Optional	up to 3
#REF!	UseOfProperty	Body	Element	Identifies the information about the buyer's planned use of the property.	Optional	One
#REF!	MethodOfFinancing	Body	Element	The information about the method of financing used to purchase the property.	Optional	up to 2
#REF!	Specifications	Body	Element	Identifies further specifications about the property.	Required	One
#REF!	FinancialArrangements					

#REF!	TotalPurchasePrice	FinancialArrangements	Element	Identifies the total purchase price of the property. (Field 4 in the 2002 Sales Ratio Study).	Required	One
#REF!	DownPayment	FinancialArrangements	Element	Identifies the down payment when purchasing the property. (Field 5 in the 2002 Sales Ratio Study).	Optional	One
#REF!	PrepaidInterest	FinancialArrangements	Element	Identifies the prepaid interest when purchasing the property. Required when seller financed. (Field 6 in the 2002 Sales Ratio Study).	Optional	One
#REF!	PersonalProperty	FinancialArrangements	Element	Identifies all the personal property items included in the total purchase price of the property.	Optional	One
#REF!	PersonalProperty					
#REF!	Details	PersonalProperty	Element	The details of the personal property included in the purchase price of the property.	Optional	Multiple
#REF!	TotalValue	PersonalProperty	Element	The total value of all the personal property that was included in the purchase price . (Field 7 in the 2002 Sales Ratio Study).	Required	One
#REF!	Details					
#REF!	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
#REF!	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
#REF!	Acquisition					
#REF!	YearSigned	Acquisition	Attribute	The year the the purchase agreement was signed (if over two years ago). Only applicable for the "Purchase agreement singed over two years ago" acquisition type.	Optional	One
	SellerAcquisitionDate	Acquisition	Attribute	The year the seller acquired the property.	Optional	One
#REF!	UseOfProperty					
1	Participant	UseOfProperty	Attribute	Identifies if the participant using the property.	Required	One
#REF!	PrincipalResidence	UseOfProperty	Attribute	The information identifying if the property will be the buyer's principal residence.	Required	One
	Reason	UseOfProperty	Element	The identifier of the value.	Required	One
	Description	UseOfProperty	Element	The value representing the identifier.	Optional	One
#REF!	MethodOfFinancing					
#REF!	Type	MethodOfFinancing	Attribute	The method of financing used to purchase the property. ("A" is for the assumed mortgage and "C" is for the Contract for Deed) (Field 8 and 14 in the 2002 Sales Ratio Study)	Required	One

	MortgageOfContractAmount	MethodOfFinancing	Element	The Mortgage or Contract for Deed amount at purchase. (Field 9 and 15 in the 2002 Sales Ratio Study).	Required	One
	Details	MethodOfFinancing	Element	Identifies the details about the adjustments.	Required	One
#REF!	Details					
#REF!	NoAdjustment	Details	Element	Identifies the information without adjustments	Choice of NoAdjustment or Adjustment	One
#REF!	Adjustment	Details	Element	Identifies the information with adjustments		
1	NoAdjustment					
2	MonthlyPayment	NoAdjustment	Element	The monthly payment for principal and interest. (Field 10 and 16 in the 2002 Sales Ratio Study).	Optional	One
3	InterestRate	NoAdjustment	Element	The interest rate that is now in effect. (Field 11 and 17 in the 2002 Sales Ratio Study).		One
	TotalNumberOfPayments	NoAdjustment	Element	The total number of payments. (Field 12 and 18 in the 2002 Sales Ratio Study).	Optional	One
	DateOfLumpSumPayments	The date of any lump sum (balloon) payments. (Field 13 and 19 in the 2002 Sales Ratio Study)			Optional	One
1	Adjustment					
2	AdjustmentCode	Adjustment	Element	The adjustment code for sales that have special terms (eg. a contract with scheduled changes in payment). (Field 32 in the 2002 Sales Ratio Study)	Optional	One
3	AdjustedSalePrice	Adjustment	Element	A sale price that was adjusted using a personal computer or a financial calculator. (Field 33 in the 2002 Sales Ratio Study).		One
#REF!	Specifications					
#REF!	CurrentYearMarketValue	Specifications	Element	The market value of the purchased property for the current year.	Optional	One
#REF!	PreviousYearMarketValue	Specifications	Element	The market value of the purchased property for the previous year.	Optional	One
#REF!	YearBuilt	Specifications	Element	The year that the principal structure was built. (Field 20 in the 2002 Sales Ratio Study)	Optional	One
#REF!	SchoolDistrict	Specifications	Element	The school district that the property resides in. (Field 21 in the 2002 Sales Ratio Study).	Required	One
#REF!	UseCode	Specifications	Element	The code describing what the property is to be used for. Use only for apartment, commercial, industrial and resort properties. (Field 34 in the 2002 Sales Ratio Study).	Optional	One

#REF!	NumberOfApartments	Specifications	Element	The total number of units of apartment property being transferred. (Field 36 in the 2002 Sales Ratio Study).	Optional	One
#REF!	GreenAcresCode	Specifications	Element	Indicator if any of the parcels in the sale are subject to Green Acres, Wetlands or Native Praries. (Field 38 in the 2002 Sales Ratio Study)	Optional	One
#REF!	Identification	Specifications	Element	Identifies the unique record ID number assigned by the Department of Revenue.	Optional	One
#REF!	PropertyTypeCode	Specifications	Element	The property type code that the property resides in. (Field 44 in the 2002 Sales Ratio Study).	Required	One
#REF!	TransactionCode	Specifications	Element	The code for the type of transaction. (Field 46 in the 2002 Sales Ratio Study).	Optional	One
#REF!	UpdateCode	Body	Element	Do not enter. (Field 29 in the 2002 Sales Ratio Study)	Optional	One
#REF!	HoldCode	Body	Element	Do not enter. (Field 30 in the 2002 Sales Ratio Study)	Optional	One
#REF!	StatusCode	LeaveBlank	Element	Do not enter. (Field 31 in the 2002 Sales Ratio Study)	Optional	One
#REF!	CRVSequenceNumber	Specifications	Element	The CRV Sequence Number. (Field 54 in the 2002 Sales Ratio Study).	Optional	One
#REF!	Comment	Specifications	Element	A comment area in which the county may note any special information that it feels the department should be aware of. (Field 60 in the 2002 Sales Ratio Study)	Optional	One
#REF!	AgriculturalSpecifics	Specifications	Element	Identifies the agricultural related specifications.	Optional	One
#REF!	CurrentYearMarketValue					
#REF!	Year	CurrentYearMarketValue	Element	The Year that the land and building estimated market values are based on.	Required	One
#REF!	LandValue	CurrentYearMarketValue	Element	The estimated market value for the land.	Required	One
#REF!	BuildingValue	CurrentYearMarketValue	Element	The estimated market value for the building(s).	Optional	One
#REF!	EstimatedMarketValue	CurrentYearMarketValue	Element	The total estimated market value of the land and building(s). (Field 27 (previous year) and 28 (current year) on the 2002 Sales Ratio Study).	Required	One
#REF!	TillableMarketValue	CurrentYearMarketValue	Element	The market value for Tillable Acres. Only needed for agricultural properties. (Field 35 in the 2002 Sales Ratio Study).	Optional	One

#REF!	PreviousYearMarketValue					
#REF!	Year	PreviousYearMarketValue	Element	The Year that the land and building estimated market values are based on.	Required	One
#REF!	LandValue	PreviousYearMarketValue	Element	The estimated market value for the land.	Required	One
#REF!	BuildingValue	PreviousYearMarketValue	Element	The estimated market value for the building(s).	Optional	One
#REF!	EstimatedMarketValue	PreviousYearMarketValue	Element	The total estimated market value of the land and building(s). (Field 27 (previous year) and 28 (current year) on the 2002 Sales Ratio Study).	Required	One
#REF!	Use					
#REF!	Code	Use	Element	Identifies the code of the Use for the property.	Required	One
#REF!	NAICSCode	Use	Element	Identifies the North American Industry Classification System (NAICS) code.	Optional	One
#REF!	AgriculturalSpecifics					
#REF!	DeededAcres	AgriculturalSpecifics	Element	The total deeded acres being transferred. Only needed for agricultural and timber properties. (Field 22 in the 2002 Sales Ratio Study).	Optional	One
#REF!	TillableAcres	AgriculturalSpecifics	Element	The total tillable acres being transferred. Only needed for agricultural properties. (Field 23 in the 2002 Sales Ratio Study).	Optional	One
#REF!	CropEquivalencyRating	AgriculturalSpecifics	Element	The information for the address and communication means for the respective party.	Optional	One
#REF!	CRPRIM	AgriculturalSpecifics	Element	Crop equivalency rating of the property being transferred. Only needed for agricultural properties. (Field 24 in the 2002 Sales Ratio Study).	Optional	One
#REF!	CRPRIMAcres	AgriculturalSpecifics	Element	The number of acres of the property that are enrolled in the CRPRIM program. (Field 26 in the 2002 Sales Ratio Study).	Optional	One
#REF!	Reject					
#REF!	CountyRejected	Reject	Attribute	Identifies if the county rejected the document	Required	One

#REF!	Identifier	Reject	Element	The identifier of the value.	Required	Multiple
#REF!	Value	Reject	Element	The value representing the identifier.	Optional	Multiple
#REF!	Comment	Reject	Element	Allows a more detailed description about the subject.	Optional	One

Assignment of Mortgage

Line #	Name	Parent Element	Element/Attribute	Definition	Required/Optional	Cardinality
1	Root					
2	Document	Root	Element	The root element for the Assignment of Mortgage schema.	Required	One
3	Document					
4	Id	Document	Attribute	The ID used when referencing a portion of the document that a person is signing.	Required	One
5	Version	Document	Attribute	The version of the document's schema.	Required	One
6	Header	Document	Element	Contains specific information about the document (eg. Type and subtype, property code, etc.)	Required	One
7	Grantor	Document	Element	Entity giving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple
8	Grantee	Document	Element	Entity receiving the interest in the property. (eg. Grantor 1: Jane Doe and John Doe, as husband and wife. Grantor 2: Jimmy Doe, a single person or Company ABC)	Required	Multiple
9	Property	Document	Element		Optional	Multiple
10	Parties	Document	Element	The parties in the document. (eg. Return To, Drafted By)	Required	One
11	Execution	Document	Element	The information detailing the execution of the document.	Required	One
12	RecordedDocument	Document	Element	The information about the recorded reference documents. (eg. the previously recorded Mortgage document that is being satisfied.)	Required	Multiple
13	Notary	Document	Element	The information detailing the specifics about the Notary's authorization.	Required	Multiple
14	CountyInformation	Document	Element	The information detailing the specifics about the recording or rejecting of the document (eg. document number, data and time or the reasons for rejecting)	Optional	Multiple

15	EmbeddedFile	Document	Element	The information detailing the files that accompany the document. (eg. the HTML view or the scanned in image of the Well Certificate)	Required	Multiple
16	Header					
17	PropertyCode	Header	Element	The type of the subject property (Abstract or Torrens)	Required	One
18	Code	Header	Element	Abbreviated code of the document.	Required	One
19	Type	Header	Element	Identifies the type of document	Required	One
20	Subtype	Header	Element	Identifies a subtype of the type of the document used to help identify the type of the Grantor. (eg. by Individual, by Corporation or Partnership)	Optional	One
21	ReferenceInformation	Header	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple
22	Reference Information					
23	Identifier	Reference Information	Element	The identifier of the value.	Required	Multiple
24	Value	Reference Information	Element	The value representing the identifier	Required	Multiple
25	Comment	Reference Information	Element	Allows a more detailed description about the subject.	Optional	One
26	Execution					
27	InstrumentDate	Execution	Element	Date of the document.	Required	One
28	County	Execution	Element	The county where the document was notarized.	Required	One
29	State	Execution	Element	The state where the document was notarized	Required	One
30	SignatureDate	Execution	Element	The date the document was signed.	Required	One
31	Grantor					
32	EntityName	Grantor	Element	The information for the names of the respective party.	Required	One
33	Correspondence	Grantor	Element	The information for the address and communication means for the respective party.	Optional	Multiple
34	EntityName					
35	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple

36	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. ONE DOE, JOHN DOE, AS WIFE AND		Multiple
37	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple
38	Organization					
39	Name	Organization	Element	The information about all the different names for an organization.	Required	One
40	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One
41	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
42	Name					
43	PrimaryName	Name	Element	The primary name of an organization.	Required	One
44	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
45	OtherName					
46	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
47	RegulatoryEntity					
48	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
49	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
50	RelatedOrganization					
51	Name	Organization	Element	The information about all the different names for an organization.	Required	One
52	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
53	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
54	Name					
55	PrimaryName	Name	Element	The primary name of an organization.	Required	One
56	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
57	OtherName					

58	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
59	RegulatoryEntity					
60	Identifier		Element	The identifier of the value.	Required	Multiple
61	Value		Element	The value representing the identifier	Required	Multiple
62	IndividualGroup					
63	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One
64	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple
65	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One
66	Name					
67	PrimaryName	Name	Element	The commonly used name for an individual.		One
68	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple
69	PrimaryName					
70	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
71	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple
72	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
73	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
74	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
75	OtherName					
76	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
77	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple
78	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
79	LastName	OtherName	Element	The last name of an individual	Required	Multiple
80	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
81	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One
82	Capacity					
83	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
84	Value	Capacity	Element	The value representing the identifier	Required	Multiple

85	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
86	Correspondence					
87	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
88	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
89	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
90	Address					
91	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
92	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
93	City	Address	Element	City of the address	Required	One
94	Township	Address	Element	Township of the address	Optional	One
95	County	Address	Element	County of the address	Optional	One
96	State	Address	Element	State of the address	Required	One
97	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
98	Country	Address	Element	Country of the address	Optional	One
95	City					
96	Code	County	Attribute	The assigned code of the city	Optional	One
97	Township					
98	Code	County	Attribute	The assigned code of the township	Optional	One
99	County					
100	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
101	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
102	State					
103	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
104	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
105	Country					
106	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
107	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
108	Communication					
109	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
110	Value	Communication	Element	The value representing the identifier	Required	Multiple

111	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
112	Grantee					
113	EntityName	Grantee	Element	The information for the names of the respective party.	Required	One
114	Correspondence	Grantee	Element	The information for the address and communication means for the respective party.	Optional	Multiple
115	EntityName					
116	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple
117	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE is a HOUSEWIFE AS WIFE AND		
118	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple
119	Organization					
120	Name	Organization	Element	The information about all the different names for an organization.	Required	One
121	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
122	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
123	Name					
124	PrimaryName	Name	Element	The primary name of an organization.	Required	One
125	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
126	OtherName					
127	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
128	RegulatoryEntity					
129	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
130	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
131	RelatedOrganization					
132	Name	RelatedOrganization	Element	The information about all the different names for an organization.	Required	One

133	RegulatoryEntity	RelatedOrganization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
134	RelatedOrganization	RelatedOrganization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
135	Name					
136	PrimaryName	Name	Element	The primary name of an organization.	Required	One
137	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
138	OtherName					
139	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
140	RegulatoryEntity					
141	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
142	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
143	Individual Group					
144	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One
145	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple
146	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One
147	Name					
148	PrimaryName	Name	Element	The commonly used name for an individual.		One
149	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple
150	PrimaryName					
151	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
152	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple
153	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
154	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
155	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
156	OtherName					

157	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
158	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple
159	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
160	LastName	OtherName	Element	The last name of an individual	Required	Multiple
161	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
162	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One
163	Capacity					
164	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
165	Value	Capacity	Element	The value representing the identifier	Required	Multiple
166	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
167	Correspondence					
168	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
169	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
170	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
171	Address					
172	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
173	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
174	City	Address	Element	City of the address	Required	One
175	Township	Address	Element	Township of the address	Optional	One
176	County	Address	Element	County of the address	Optional	One
177	State	Address	Element	State of the address	Required	One
178	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
179	Country	Address	Element	Country of the address	Optional	One
176	City					
177	Code	County	Attribute	The assigned code of the city	Optional	One
178	Township					
179	Code	County	Attribute	The assigned code of the township	Optional	One
180	County					
181	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
182	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
183	State					

184	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
185	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
186	Country					
187	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
188	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
189	Communication					
190	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
191	Value	Communication	Element	The value representing the identifier	Required	Multiple
192	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
193	Property					
194	LegalDescription	Property	Element	Identifies the legal description information for the property.	Required	Multiple
195	PropertyCode	Property	Element	The type of the subject property (eg. Abstract or	Required	One
196	Address	Property	Element	The address of the subject property.	Required	Multiple
197	Legal Description					
198	ParcelIdentificationNumber	LegalDescription	Element	The identification number (commonly referred to as PIN) of the subject property.	Required	Multiple
199	Comment	LegalDescription	Element	Allows a more detailed description about the subject.	Optional	One
200	SurveyType	LegalDescription	Element	The platted and/or unplatted information of the subject property.	Required	One
201	SurveyType					
202	PlattedLand	SurveyType	Element	Platted legal description of subject property.	At least one is required.	Multiple
203	UnplattedLand	SurveyType	Element	Unplatted legal description of subject property.		
204	PlattedLand					
205	Type	PlattedLand	Attribute	Describes the type of platted land survey. (eg. Subdivision, condominium, CIC or RLS)	Required	One
206	Name	PlattedLand	Element	Subdivision name of a platted subdivisions, condominium, CIC or RLS.	Required	One
207	Lot	PlattedLand	Element	Lot unit as shown on Plat on file with county	Optional	One
208	Tract	PlattedLand	Element	Tract number designated on a Registered Land survey	Optional	One
209	Block	PlattedLand	Element	Block unit as shown on Plat on file with county	Optional	One

210	Code	PlattedLand	Element	A coded identification number assigned to a plat by a county to be used to identify a plat in place of a subdivision name or platbook and page	Optional	One
211	Building	PlattedLand	Element	Building identifier of a building in a condominium or timeshare condominium	Optional	One
212	AppurtenanceInformation	PlattedLand	Element	Accessory objects, such as a parking garage, parking space, storage shed or boat slip	Optional	Multiple
213	Unit	PlattedLand	Element	Unit Identifier or CECT (Common Element Certificate Title) number of a building in a condominium or timeshare condominium.	Optional	One
214	PartOfFlag	PlattedLand	Element	Indicator used to reveal if the property is only part of the platted legal description. The Comment element can be used to further describe the property boundaries.	Required	One
215	OtherLot	PlattedLand	Element	Allows for descriptor of another lot (eg. Parks)	Optional	One
216	Comment	PlattedLand	Element	Allows a more detailed description about the subject.	Optional	One
217	AppurtenanceInformation					
218	Identifier	AppurtenanceInformation	Element	The identifier of the value.	Required	Multiple
219	Value	AppurtenanceInformation	Element	The value representing the identifier	Required	Multiple
220	Comment	AppurtenanceInformation	Element	Allows a more detailed description about the subject.	Optional	One
221	Unplatted Land					
222	Type	UnplattedLand	Attribute	Describes the type of unplatted land survey. (eg. Government Survey or Land)	Required	One
223	Section	UnplattedLand	Element	The Government Survey section in which the property is located, numbered 1 through 36 though some jurisdictions have up to 100 sections	Required	One
224	Township	UnplattedLand	Element	The Government Survey Township coordinate and direction code of Property, e.g. 37N	Required	One
225	Range	UnplattedLand	Element	The Government Survey Range coordinate and direction code of the property, e.g. 12E	Required	One
226	QuarterSection	UnplattedLand	Element	The quarter section in which the property is located. Based on Government Survey system.	Optional	One

227	QuarterQuarterSection	UnplattedLand	Element	The quarter section within the first quarter section in which the property is located. Based on Government Survey system.	Optional	One
228	QuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the second quarter section in which the property is located. Based on Government Survey system.	Optional	One
229	QuarterQuarterQuarterQuarterSection	UnplattedLand	Element	The quarter section within the third quarter section in which the property is located. Based on Government Survey system.	Optional	One
230	GovernmentLot	UnplattedLand	Element	An Identifier of an irregular parcel of land.	Optional	One
231	Comment	UnplattedLand	Element	Allows a more detailed description about the subject.	Optional	One
232	Address					
233	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
234	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
235	City	Address	Element	City of the address	Optional	One
236	Township	Address	Element	Township of the address	Optional	One
237	County	Address	Element	County of the address	Required	One
238	State	Address	Element	State of the address	Required	One
239	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
240	Country	Address	Element	Country of the address	Optional	One
237	City					
238	Code	County	Attribute	The assigned code of the city	Optional	One
239	Township					
240	Code	County	Attribute	The assigned code of the township	Optional	One
241	County					
242	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
243	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
244	State					
245	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
246	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
247	Country					
248	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
249	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One

250	Parties					
251	ReturnToParty	Parties	Element	Party where recorded document will eventually be returned to. This may not always be the sumitting party.	Optional	Multiple
252	DraftedOrPreparedByParty	Parties	Element	Party who prepared the document.	Required	Multiple
253	BillToParty	Parties	Element	Party responsible for payment of all fees associated with the recording of the document.	Optional	Multiple
254	SignedByParty	Parties	Element	The information of the people signing the document.	Required	One
255	OriginalMortgagorParty	Parties	Element	Information about the original mortgagor of the mortgage.	Required	Multiple
256	OriginalMortgageeParty	Parties	Element	Information about the original mortgagee of the mortgage.	Required	Multiple
257	DraftedOrPreparedByParty					
258	EntityName	DraftedOrPreparedByParty	Element	The information for the names of the respective party.	Required	One
259	Correspondence	DraftedOrPreparedByParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
260	EntityName					
261	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple
262	Individual	EntityName	Element	A person's name and title.		
263	Individual					
264	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
265	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
266	Organization					
267	PrimaryName	Organization	Element	The name of the organization.	Required	One
268	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
269	Individual					
270	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
271	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
272	Correspondence					
273	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
274	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple

275	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
276	Address					
277	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
278	StreetAddress	Address	Element	Street Address of the address	Required	Multiple
279	City	Address	Element	City of the address	Required	One
280	Township	Address	Element	Township of the address	Optional	One
281	County	Address	Element	County of the address	Optional	One
282	State	Address	Element	State of the address	Required	One
283	ZipCode	Address	Element	Zipcode/Zip code of the address	Required	One
284	Country	Address	Element	Country of the address	Optional	One
281	City					
282	Code	County	Attribute	The assigned code of the city	Optional	One
283	Township					
284	Code	County	Attribute	The assigned code of the township	Optional	One
285	County					
286	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
287	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
288	State					
289	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
290	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
291	Country					
292	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
293	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
294	Communication					
295	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
296	Value	Communication	Element	The value representing the identifier	Required	Multiple
297	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
298	ReturnToParty					
299	EntityName	ReturnToParty	Element	The information for the names of the respective party.	Required	One
300	Correspondence	ReturnToParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple

301				EntityName		
302	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple
303	Individual	EntityName	Element	A person's name and title.		
304	Individual					
305	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
306	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
307	Organization					
308	PrimaryName	Organization	Element	The name of the organization.	Required	One
309	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
310	Individual					
311	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
312	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
313	Correspondence					
314	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
315	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple
316	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
317	Address					
318	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
319	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
320	City	Address	Element	City of the address	Required	One
321	Township	Address	Element	Township of the address	Optional	One
322	County	Address	Element	County of the address	Optional	One
323	State	Address	Element	State of the address	Required	One
324	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
325	Country	Address	Element	Country of the address	Optional	One
322	City					
323	Code	County	Attribute	The assigned code of the city	Optional	One
324	Township					
325	Code	County	Attribute	The assigned code of the township	Optional	One
326	County					
327	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
328	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One

329				State		
330	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
331	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
332	Country					
333	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
334	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
335	Communication					
336	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
337	Value	Communication	Element	The value representing the identifier	Required	Multiple
338	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
339	BillToParty					
340	EntityName	BillToParty	Element	The information for the names of the respective party.	Required	One
341	Correspondence	BillToParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
342	EntityName					
343	Organization	EntityName	Element	The name and representative(s) of the organization.	Choice of Organization or Individual	Multiple
344	Individual	EntityName	Element	A person's name and title.		
345	Individual					
346	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
347	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
348	Organization					
349	PrimaryName	Organization	Element	The name of the organization.	Required	One
350	Individual	Organization	Element	The representative for the organization.	Optional	Multiple
351	Individual					
352	PrimaryName	Individual	Element	The unparsed name of the person	Required	One
353	Title	Individual	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Optional	One
354	Correspondence					
355	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
356	Address	Correspondence	Element	The address of the individual or organization.	Required	Multiple

357	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
358	Address					
359	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
360	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
361	City	Address	Element	City of the address	Required	One
362	Township	Address	Element	Township of the address	Optional	One
363	County	Address	Element	County of the address	Optional	One
364	State	Address	Element	State of the address	Required	One
365	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
366	Country	Address	Element	Country of the address	Optional	One
363	City					
364	Code	County	Attribute	The assigned code of the city	Optional	One
365	Township					
366	Code	County	Attribute	The assigned code of the township	Optional	One
367	County					
368	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
369	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
370	State					
371	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
372	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
373	Country					
374	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
375	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
376	Communication					
377	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
378	Value	Communication	Element	The value representing the identifier	Required	Multiple
379	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
380	SignedByParty					
381	Id	SignedByParty	Attribute	The ID referenced when notarizing or witnessing a signature or group of signatures.	Required	One

382	SigningEntityGroup	SignedByParty	Element	Groups the individuals that are signing the document for the same purpose (ie. endorser, witness)	Required	Multiple
383	SigningEntityGroup					
384	Type	SigningEntityGroup	Attribute	The type of the group of signatures. (eg. "Endorser" or "Witness")	Required	Multiple
385	Id	SigningEntityGroup	Attribute	The ID reference when witnessing or notarizing a signature or group of signatures.	Required	Multiple
386	SigningEntity	SigningEntityGroup	Element	The entity(s) that are signing the document.	Required	Multiple
387	SigningEntity					
388	EntityName	SigningEntity	Element	The information for the names of the respective party.	Required	
389	Correspondence	SigningEntity	Element	The information for the address and communication means for the respective party.	Optional	Multiple
390	EntityName					
391	Organization	EntityName	Element	The name of the organization and its signing representative(s).	Choice of Organization or Individual	Multiple
392	Individual	EntityName	Element	The person's name and title for signing purposes.		Multiple
393	Organization					
394	Name	Organization	Element	The information about all the different names for an organization.	Optional	One
395	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Required	One
396	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
397	Seal	Organization	Element	The seal of the person or organization signing.	Optional	One
398	Individual	Organization	Element	The information about the person who is signing the document for the organization. (eg. JANE DOE, OPERATIONS OFFICER)	Required	Multiple
399	Name					
400	PrimaryName	Name	Element	The primary name of an organization.	Required	One
401	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
402	OtherName					

403	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
404	RegulatoryEntity					
405	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
406	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
407	RelatedOrganization					
408	Name	Organization	Element	The information about all the different names for an organization.	Required	One
409	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
410	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
411	Name					
412	PrimaryName	Name	Element	The primary name of an organization.	Required	One
413	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
414	OtherName					
415	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
416	RegulatoryEntity					
417	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
418	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
419	Individual					
420	PrimaryName	Individual	Element	The information about the person who is signing	Required	One
421	Title	Individual	Element	The title of the person. (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
422	Signature	Individual	Element	Information detailing the signature of the person.	Required	One
423	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One
424	PrimaryName					
425	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
426	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
427	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
428	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
429	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple

430	Individual					
431	Name	Individual	Element	The unparsed name of the person	Required	One
432	Capacity	Individual	Element	The capacity of the person (eg. Guardian, trustee)	Optional	One
433	Signature	Individual	Element	Information detailing the signature of the person.	Required	One
434	Seal	Individual	Element	The seal of the person or organization signing.	Optional	One
435	Name					
436	PrimaryName	Name	Element	The commonly used name for an individual.	Required	One
437	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)	Optional	Multiple
438	PrimaryName					
439	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
440	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
441	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
442	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
443	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
444	OtherName					
445	Type	OtherName	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
446	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
447	FirstName	OtherName	Element	The first name of an individual	Required	Multiple
448	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
449	LastName	OtherName	Element	The last name of an individual	Required	Multiple
450	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
451	Capacity					
452	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
453	Value	Capacity	Element	The value representing the identifier	Required	Multiple
454	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
455	Address					
456	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
457	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
458	City	Address	Element	City of the address	Required	One
459	Township	Address	Element	Township of the address	Optional	One
460	County	Address	Element	County of the address	Optional	One

461	State	Address	Element	State of the address	Required	One
462	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
463	Country	Address	Element	Country of the address	Optional	One
460	City					
461	Code	County	Attribute	The assigned code of the city	Optional	One
462	Township					
463	Code	County	Attribute	The assigned code of the township	Optional	One
464	County					
465	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
466	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
467	State					
468	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
469	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
470	Country					
471	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
472	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
473	Communication					
474	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
475	Value	Communication	Element	The value representing the identifier	Required	Multiple
476	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
477	OriginalMortgagorParty					
478	EntityName	OriginalMortgagorParty	Element	The information for the names of the respective party.	Required	One
479	Correspondence	OriginalMortgagorParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
480	EntityName					
481	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple

482	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple
483	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple
484	Organization					
485	Name	Organization	Element	The information about all the different names for an organization.	Required	One
486	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
487	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
488	Name					
489	PrimaryName	Name	Element	The primary name of an organization.	Required	One
490	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
491	OtherName					
492	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
493	RegulatoryEntity					
494	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
495	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
496	RelatedOrganization					
497	Name	Organization	Element	The information about all the different names for an organization.	Required	One
498	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
499	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
500	Name					
501	PrimaryName	Name	Element	The primary name of an organization.	Required	One
502	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple

503	OtherName					
504	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
505	RegulatoryEntity					
506	Identifier		Element	The identifier of the value.	Required	Multiple
507	Value		Element	The value representing the identifier	Required	Multiple
508	IndividualGroup					
509	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One
510	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple
511	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One
512	Name					
513	PrimaryName	Name	Element	The commonly used name for an individual.		One
514	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple
515	PrimaryName					
516	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
517	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple
518	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
519	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
520	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
521	OtherName					
522	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
523	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple
524	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
525	LastName	OtherName	Element	The last name of an individual	Required	Multiple
526	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
527	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One
528	Capacity					
529	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
530	Value	Capacity	Element	The value representing the identifier	Required	Multiple

531	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
532	Correspondence					
533	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
534	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
535	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
536	Address					
537	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
538	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
539	City	Address	Element	City of the address	Required	One
540	Township	Address	Element	Township of the address	Optional	One
541	County	Address	Element	County of the address	Optional	One
542	State	Address	Element	State of the address	Required	One
543	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
544	Country	Address	Element	Country of the address	Optional	One
541	City					
542	Code	County	Attribute	The assigned code of the city	Optional	One
543	Township					
544	Code	County	Attribute	The assigned code of the township	Optional	One
545	County					
546	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One
547	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
548	State					
549	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
550	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
551	Country					
552	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
553	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
554	Communication					
555	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
556	Value	Communication	Element	The value representing the identifier	Required	Multiple

557	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
558	OriginalMortgageeParty					
559	EntityName	OriginalMortgageeParty	Element	The information for the names of the respective party.	Required	One
560	Correspondence	OriginalMortgageeParty	Element	The information for the address and communication means for the respective party.	Optional	Multiple
561	EntityName					
562	Organization	EntityName	Element	The information about an organization relating to its name, related organizations and jurisdiction authorization. (eg. LOCAL BANK is an ASSOCIATION under the laws of THE UNITED STATES OF AMERICA)	Choice of Organization or Individual Group	Multiple
563	IndividualGroup	EntityName	Element	The information about groups of individuals relating to their names and their relationships. (eg. JANE DOE and JOHN DOE, AS WIFE AND HUSBAND)		Multiple
564	Correspondence	EntityName	Element	The information for the address and communication means for the respective party.	Optional	Multiple
565	Organization					
566	Name	Organization	Element	The information about all the different names for an organization.	Required	One
567	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
568	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
569	Name					
570	PrimaryName	Name	Element	The primary name of an organization.	Required	One
571	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
572	OtherName					
573	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
574	RegulatoryEntity					
575	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
576	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
577	RelatedOrganization					

578	Name	Organization	Element	The information about all the different names for an organization.	Required	One
579	RegulatoryEntity	Organization	Element	The information about the jurisdiction of the entity. (eg. Identifier = 'ASSOCIATION'; Value = 'THE UNITED STATES OF AMERICA')	Optional	One
580	RelatedOrganization	Organization	Element	The information about organizations that are related to the primary organization. (eg. A NATIONAL COMPANY successor to A LOCAL COMPANY)	Optional	Multiple
581	Name					
582	PrimaryName	Name	Element	The primary name of an organization.	Required	One
583	OtherName	Name	Element	The other names that an organization can go by. (eg. abbreviated name or acronym of an organization)	Optional	Multiple
584	OtherName					
585	Type	Other Name	Attribute	Identifies the reason for the existence of the other names of an organization.	Required	One
586	RegulatoryEntity					
587	Identifier	RegulatoryEntity	Element	The identifier of the value.	Required	Multiple
588	Value	RegulatoryEntity	Element	The value representing the identifier	Required	Multiple
589	IndividualGroup					
590	RelationshipStatus	Individual Group	Attribute	Identifies the relationship of the individuals that have been grouped together (ie. husband and wife).	Optional	One
591	Name	Individual Group	Element	All the names that an individual can be known by. (eg. Jane Doe also known as Jane P. Doe)	Required	Multiple
592	Capacity	Individual Group	Element	The capacity that an individual has for another individual (eg. Identifier = 'TRUSTEE'; Value = 'of the XXXXX Trust'; Comment = 'dated March 21, 1993')	Optional	One
593	Name					
594	PrimaryName	Name	Element	The commonly used name for an individual.		One
595	OtherName	Name	Element	The additional names the individual goes by. (eg. the maiden name of a person)		Multiple
596	PrimaryName					
597	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
598	FirstName	PrimaryName	Element	The first name of an individual	Optional	Multiple
599	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
600	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple

601	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
602	OtherName					
603	NamePrefix	OtherName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
604	FirstName	OtherName	Element	The first name of an individual	Optional	Multiple
605	MiddleName	OtherName	Element	The middle name of an individual	Optional	Multiple
606	LastName	OtherName	Element	The last name of an individual	Required	Multiple
607	NameSuffix	OtherName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
608	Type	OtherName	Attribute	The type of other name for the individual (f.k.a., a.k.a., etc.)	Required	One
609	Capacity					
610	Identifier	Capacity	Element	The identifier of the value.	Required	Multiple
611	Value	Capacity	Element	The value representing the identifier	Required	Multiple
612	Comment	Capacity	Element	Allows a more detailed description about the subject.	Optional	One
613	Correspondence					
614	Type	Correspondence	Attribute	The information for the address and communication means for the respective party.	Required	One
615	Address	Correspondence	Element	The address of the individual or organization.	Optional	Multiple
616	Communication	Correspondence	Element	The communication means for contacting an individual or organization.	Optional	Multiple
617	Address					
618	Type	Address	Attribute	The type of address. (eg. Mailing, Physical, Billing, etc.)	Required	One
619	StreetAddress	Address	Element	Street Address of the address	Optional	Multiple
620	City	Address	Element	City of the address	Required	One
621	Township	Address	Element	Township of the address	Optional	One
622	County	Address	Element	County of the address	Optional	One
623	State	Address	Element	State of the address	Required	One
624	ZipCode	Address	Element	Zipcode/Zip code of the address	Optional	One
625	Country	Address	Element	Country of the address	Optional	One
622	City					
623	Code	County	Attribute	The assigned code of the city	Optional	One
624	Township					
625	Code	County	Attribute	The assigned code of the township	Optional	One
626	County					
627	Code	County	Attribute	The assigned code of the county (eg. Hennepin = '27')	Optional	One

628	FIPSCode	County	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
629	State					
630	Code	State	Attribute	The assigned code of the state. (eg. Minnesota = 'MN')	Optional	One
631	FIPSCode	State	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
632	Country					
633	Code	Country	Attribute	The assigned code of the country. (eg. United States of America = 'US')	Optional	One
634	FIPSCode	Country	Attribute	The assigned FIPS (Federal Industry Standards Processing) code.	Optional	One
635	Communication					
636	Identifier	Communication	Element	The identifier of the value.	Required	Multiple
637	Value	Communication	Element	The value representing the identifier	Required	Multiple
638	Comment	Communication	Element	Allows a more detailed description about the subject.	Optional	One
639	Notary					
640	PrimaryName	Notary	Element	Name of the notary.	Required	One
641	Title	Notary	Element	Title of the notary, or official e.g. Notary Public	Required	One
642	CommissionNumber	Notary	Element	Commission Number assigned to Notary by Authorizing Agency (usually Secretary of State)	Optional	One
643	CommissionExpirationDate	Notary	Element	Expiration date of Notary Commission if the PerpetualFlag = 'False'. If the PerpetualFlag = 'True', then date is set to infinity (9999-12-31) to represent the county official's perpetual end date.	Required	One
644	CommissionState	Notary	Element	State in which the Notary is commissioned	Required	One
645	CommissionCounty	Notary	Element	County in which the Notary is commissioned	Optional	One
646	CommissionCountry	Notary	Element	Country in which the Notary is commissioned	Optional	One
647	Seal	Notary	Element	The seal of the person signing.	Optional	One
648	Signature	Notary	Element	Information detailing the signature of the person.	Required	One
649	CommissionExpirationDate					

650	PerpetualFlag	CommissionExpirationDate	Attribute	Identifies if the commission is perpetual or not. (eg. a person working in the county office would be authorized as long as they are an employee). A notary would not a perpetual commission since they have a commission expiration date.	Required	One
651	PrimaryName					
652	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
653	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
654	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
655	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
656	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
657	CountyInformation					
658	RecordingEndorsement	CountyInformation	Element	The information about the recording of the document and the fees associated with the recording.	Choice of RecordingEndorsement or Rejection	Multiple
659	Rejection	CountyInformation	Element	Information detailing the specifics about the rejection of the document.		
660	RecordingEndorsement					
661	RecordedInformation	RecordingEndorsement	Element	The information about the recording of the document.	Required	Multiple
662	Fees	RecordingEndorsement	Element	The fees associated with the recording of the document.	Required	Multiple
663	RecordedInformation					
664	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One
665	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One
666	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One
667	CertificateOfTitle Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One
668	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One
669	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One
670	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One

671	RecordedDateAndOrTime	RecordedInformation	Element	The recorded date and time of the document	Required	One
672	Officer	RecordedInformation	Element	Identifies the name of the person signing the document authorizing that it has been recorded.	Required	Multiple
673	BookOrVolumeInformation					
674	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One
675	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One
676	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One
677	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One
678	Officer					
679	PrimaryName	Officer	Element	The unparsed name of the person	Required	One
680	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
681	Signature	Officer	Element	Information detailing the signature of the person.	Required	One
682	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One
683	PrimaryName					
684	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
685	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
686	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
687	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
688	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
689	Fees					
690	TotalAmount	Fees	Element	The total of all the fees involved in the recording for this office.	Required	One
691	ProcessingInformation	Fees	Element	The information about the processing of the fees.	Required	One
692	Fee	Fees	Element	The breakdown of the type and amount of the fees.	Required	Multiple
693	ProcessingInformation					
694	Number	ProcessingInformation	Element	The individual's prefix	Optional	One
695	Officer	ProcessingInformation	Element	Identifies the name of the person signing the document authorizing for a specific reason in an office.	Optional	Multiple

696	DateTime	ProcessingInformation	Element	The individual's last name	Optional	One
697	Office	ProcessingInformation	Element	The office that is processing the fees (eg. Recorder, Auditor, Treasurer, etc.)	Required	One
698	Officer					
699	PrimaryName	Officer	Element	The unparsed name of the person	Required	One
700	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
701	Signature	Officer	Element	Information detailing the signature of the person.	Required	One
702	Seal	Officer	Element	The seal of the person or organization signing.	Optional	One
703	PrimaryName					
704	NamePrefix	PrimaryName	Element	The prefix of an individual's name. (eg. MISS, MRS, MS, MR, etc.)	Optional	One
705	FirstName	PrimaryName	Element	The first name of an individual	Required	Multiple
706	MiddleName	PrimaryName	Element	The middle name of an individual	Optional	Multiple
707	LastName	PrimaryName	Element	The last name of an individual	Required	Multiple
708	NameSuffix	PrimaryName	Element	The suffix of an individual's name. (eg. DR, JR, SR, etc.)	Optional	Multiple
709	Fee					
710	ExemptFeeFlag	Fee	Attribute	The indicator that the person or organization was exempt from paying the fee.	Required	One
711	Identifier	Fee	Element	The identifier of the value.	Required	Multiple
712	Value	Fee	Element	The value representing the identifier	Required	Multiple
713	Comment	Fee	Element	Allows a more detailed description about the subject.	Optional	One
714	Rejection					
715	County	Rejection	Element	The county that rejected the document	Required	One
716	State	Rejection	Element	The state that rejected the document.	Required	One
717	RejectInformation	Rejection	Element	The details about the reject information.	Required	Multiple
718	RejectInformation					
719	Office	RejectInformation	Element	The Office (County Recorder, Registrar of Titles, Auditor, etc.) that the document was rejected in	Required	One
720	Officer	RejectInformation	Element	The Officer that the document was rejected by	Optional	One
721	Date and Time	RejectInformation	Element	The date and time that the document was rejected	Optional	One
722	Reason	RejectInformation	Element	The reason(s) why the document was rejected. (eg. Identifier = '010', Value = 'wrong county')	Required	Multiple
723	Officer					

724	PrimaryName	Officer	Element	The unparsed name of the person	Optional	One
725	Title	Officer	Element	The title of the person (eg. OPERATIONS OFFICER, VICE-PRESIDENT)	Required	One
726	Reason					
727	Identifier	Reason	Element	The identifier of the value.	Optional	Multiple
728	Value	Reason	Element	The value representing the identifier	Required	Multiple
729	Comment	Reason	Element	Allows a more detailed description about the subject.	Optional	One
730	RecordedDocument					
731	MortgageReferenceDocument	RecordedDocument	Element	The Mortgage document that is referenced in the document being recorded.	Required	Multiple
732	MortgageReferenceDocument					
733	RecordedInformation	MortgageReferenceDocument	Element	The information about the recording of the document.	Required	Multiple
734	SupplementalInformation	MortgageReferenceDocument	Element	Additional recording information for the document	Required	One
735	RecordedInformation					
736	Number	RecordedInformation	Element	Document Number assigned to document when recorded.	Required	One
737	BookOrVolumeInformation	RecordedInformation	Element	The book and/or volumen that the recorded document has been archived in.	Optional	One
738	Certificate of Title Number	RecordedInformation	Element	The number of the Certificate of Title for the recorded document.	Optional	One
739	PropertyCode	RecordedInformation	Element	The type of the subject property (Abstract or Torrens)	Required	One
740	County	RecordedInformation	Element	The name of the county that the document was recorded in.	Required	One
741	State	RecordedInformation	Element	The name of the state that the document was recorded in.	Required	One
742	Office	RecordedInformation	Element	The name of the recording office that the document was recorded in (County Recorder or Registrar of Titles)	Required	One
743	RecordedDateAndOrTime	RecordedInformation	Element	The Date and/or time that the document was recorded on.	Required	One
744	BookOrVolumeInformation					
745	Book	BookOrVolumeInformation	Element	Book identifier that the recorded document has been archived in.	Choice of Book, Volume or Book and Volume	One
746	Volume	BookOrVolumeInformation	Element	Volume identifier that the recorded document has been archived in.		One
747	PageStart	BookOrVolumeInformation	Element	The start page number of the recorded document in the archive books.	Required	One

748	PageStop	BookOrVolumeInformation	Element	The stop page number of the recorded document in the archive books.	Optional	One
749	RecordedDateAndOrTime					
750	RecordedDate	RecordedDateAndOrTime	Element	The recorded date of the reference document.	Choice of RecordedDate or RecordedDateTime	One
751	RecordedDateTime	RecordedDateAndOrTime	Element	The recored date and time of the reference document		One
752	SupplementalInformation					
753	ReferenceInformation	SupplementalInformation	Element	Information referencing the ID numbers for the document. (eg. Identifier = 'Loan #', Value = '109283664783'). Comment can be used to give additional details about the subject.	Optional	Multiple
754	Code	SupplementalInformation	Element	Abbreviated code of the document.	Required	One
755	Type	SupplementalInformation	Element	Identifies the type of document	Required	One
756	Instrument Date	SupplementalInformation	Element	Date of the document.	Optional	One
757	Amount	SupplementalInformation	Element	Information about the amount of the mortgage.	Optional	Multiple
758	InterestStartDate	SupplementalInformation	Element	The start date of the interest of the mortgage.	Optional	One
759	ReferenceInformation					
760	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple
761	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple
762	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One
763	Amount					
764	Identifier	ReferenceInformation	Element	The identifier of the value.	Required	Multiple
765	Value	ReferenceInformation	Element	The value representing the identifier	Required	Multiple
766	Comment	ReferenceInformation	Element	Allows a more detailed description about the subject.	Optional	One
767	EmbeddedFile					
768	Type	EmbeddedFile	Attribute	The type of file that is being attached.	Required	One
769	FileType	EmbeddedFile	Attribute	In addition to the MIME Type, identifies the program or application used to create the embedded file (i.e. Adobe Acrobat)	Optional	One
770	Name	EmbeddedFile	Attribute	Identifies the name of the embedded file (i.e. AssignmentOfMortgage.pdf)	Optional	One
771	Extension	EmbeddedFile	Attribute	Identifies the extension used to identify the embedded file (i.e. PDF, ZIP, HTML)	Optional	One

772	Description	EmbeddedFile	Attribute	Provides additional information about the embedded file.	Optional	One
773	MimeType	EmbeddedFile	Attribute	Indicates the Multipurpose Internet Mail Extensions type of the data in the document. A registered list of these types may be downloaded via ftp from: ftp.isi.edu/in-notes/iana/assignments/media-types/media-types . See http://www.isi.edu/in-notes/iana/assignments/media-types/media-types	Required	One
774	Encoded	EmbeddedFile	Attribute	Indicates if the file has been encoded.	Required	One
775	EncodingType	EmbeddedFile	Attribute	Specifies the type of encoding used on the embedded file (i.e. Base64)	Optional	One
776	Version	EmbeddedFile	Attribute	Identifies additional version information about the embedded file.	Optional	One



-- General Legislative Info --

-- Depts & Commissions --



Homepage

Members

Upcoming Meetings

Meeting Minutes

Resources on the Web

Subcommittees

Task Force Forms

Pilot Activity

ERERTF Standards

2001 Legislative
Report

2002 Legislative
Report

2003 Legislative
Report

2004 Legislative
Report

Change Control

[Version 1.0 Discussion](#)

[Change Control Document v1.0 to v1.1](#)

[Change Control Document v.1.1 to v2.0](#)

[Change Control Document v2.0 to 3.0](#)

[Attribute vs. Element Presentation](#)

Project Leader: Bert Black
Office of the Secretary of State
Phone: (651) 215-1441
Fax: (651) 215-0683
E-Mail: bert.black@state.mn.us

Send comments regarding this site to:
www@commissions.leg.state.mn.us

Updated: 12/17/03(sk)

Version 1.0

Background:

Version 1.0 was designed based on the following decisions agreed upon by the Electronic Real Estate Recording Task Force (ERERTF):

1. Schemas would be used to identify the data standards
2. Each document would have its own schema (Satisfaction, Certificate of Release, Affidavit of Purchaser, Assignment of Mortgage, Deeds (Warranty Deed, Limited Warranty Deed, Quit Claim Deed), and the CRV).
3. Business rules would be defined in each schema to reflect that document's requirements.

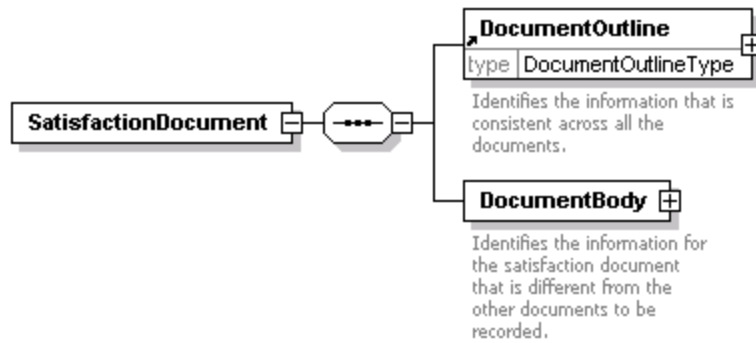
The following design standards were implemented:

1. Mixed case was used to decipher the words within one name
2. No underscores were used in the naming conventions
3. All document schema files started with an upper case value
4. All datatype files started with "dt"
5. All sub-schema files used to create the document schemas started with a lower case value
6. Typing of element structures was used to allow for reuse of these structures and ease of maintenance
7. Grouping of attributes was used to allow for reuse of these groupings and ease of maintenance
8. W3C XML Signature standards were followed for the representations of the persons signing the document (endorsers, notaries, county personnel, buyers and sellers of the property)
9. All elements started with an upper case letter
10. All attributes started with a lower case letter

There were 6 schemas identified, commonly referred to as "the six pack":

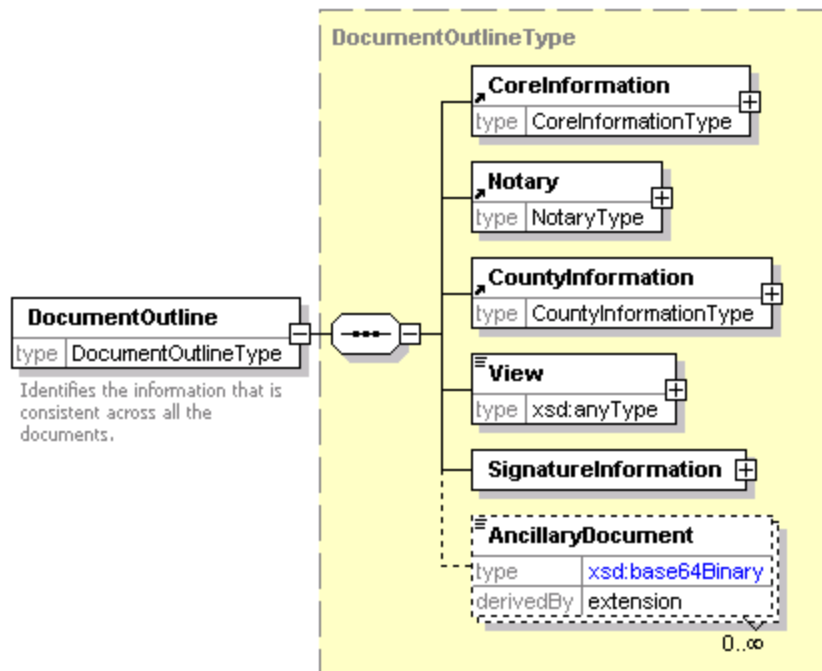
- Satisfaction
- Deed
- AssignmentOfMortgage
- CertificateOfRelease
- CRV
- AffidavitOfPuchaser

The **Satisfaction**, **Deed**, **Assignment of Mortgage** and **Certificate of Release** document schemas were identified by the top or root element indicating the type of document and then two child element structures indicating the outline information and the body information for the document.



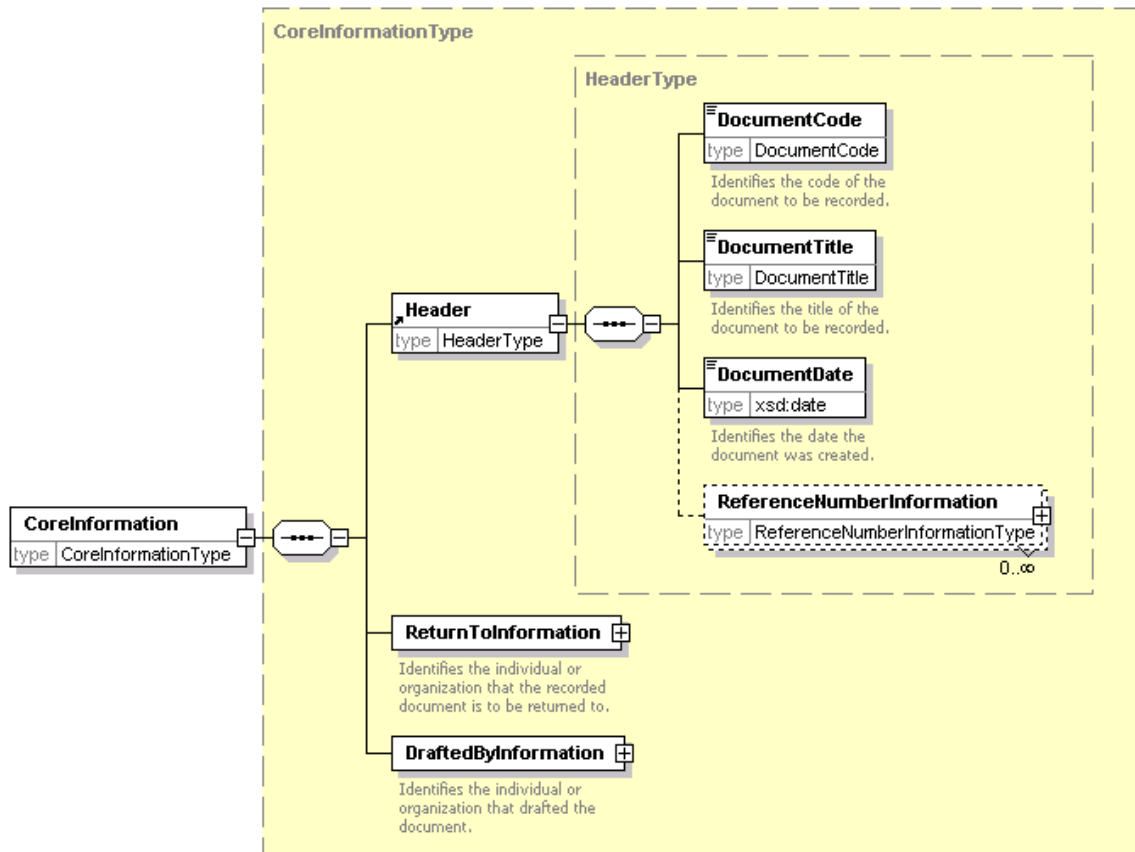
Generated with XMLSpy Schema Editor www.xmlspy.com

The **DocumentOutline** element structure contains information that was consistent across all the documents and contains general information about the document.

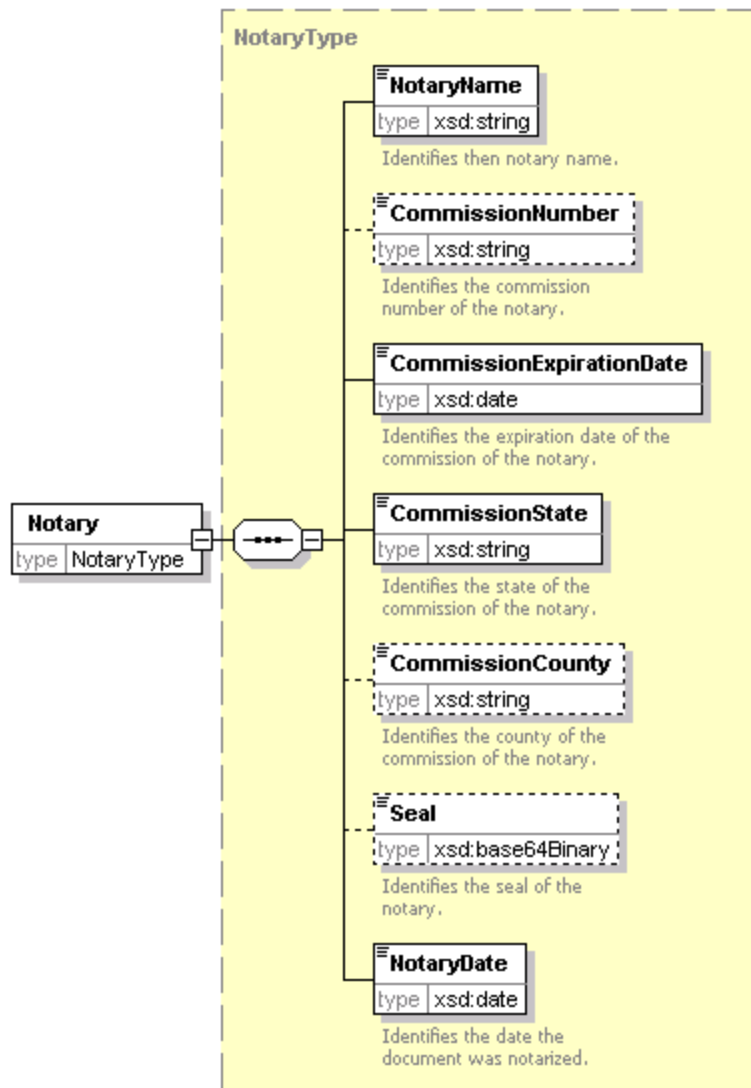


Generated with XMLSpy Schema Editor www.xmlspy.com

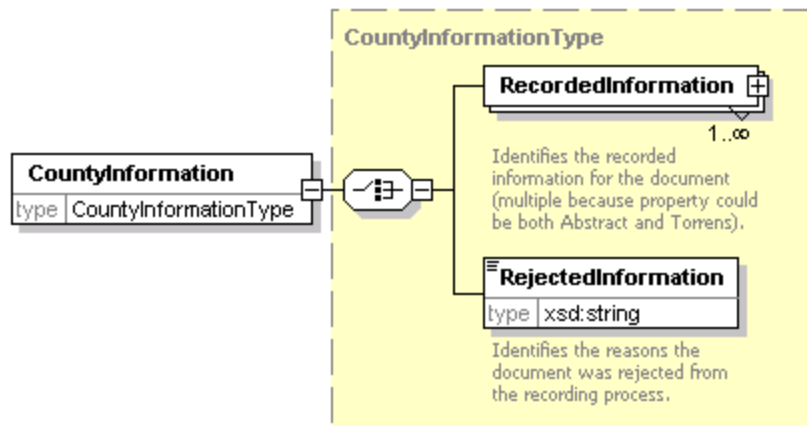
The **CoreInformation** element structure contains document identifiers (eg. code and title), reference number information (eg. loan numbers or file numbers), the date the document was signed, the party that the document should be returned to and the party that drafted the document.



The **Notary** element structure contains information about the notary's name, the notary's commission information, the date the document was notarized and the seal of the notary.

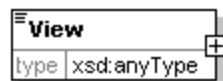


The **CountyInformation** element contains information about the rejection or recordation of the document by the county.



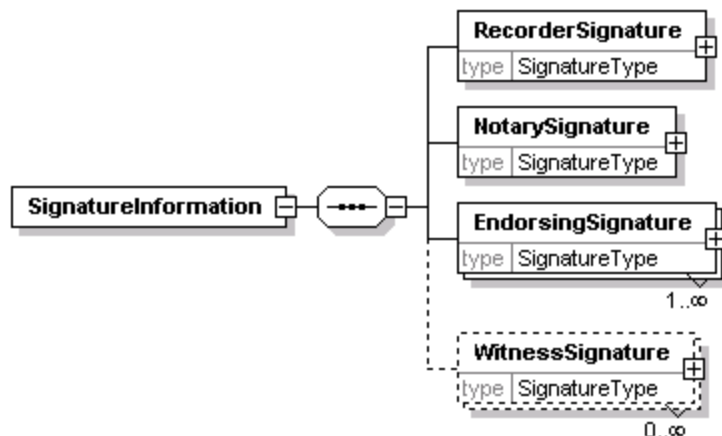
Generated with XMLSpy Schema Editor www.xmlspy.com

The **View** structure allows for a style sheet to accompany the document to render the XML into a user-friendly format.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **SignatureInformation** element structure contains the information need to identify the signatures of all the people that would sign the document.



Generated with XMLSpy Schema Editor www.xmlspy.com

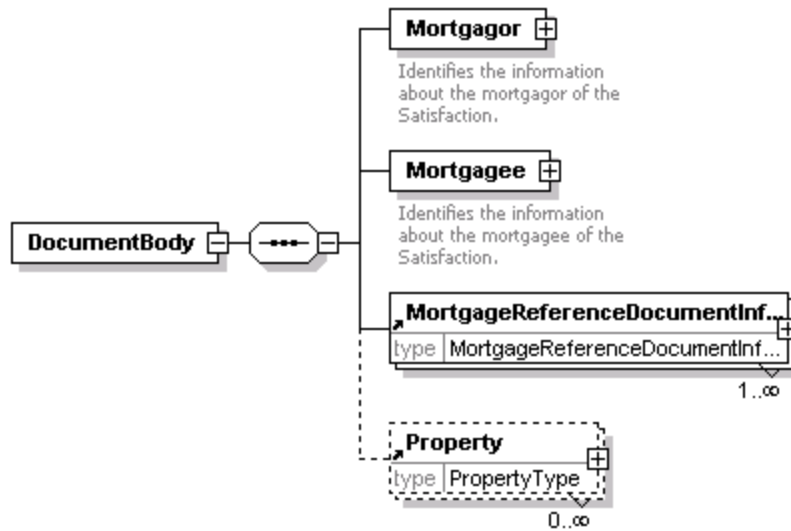
The **AncillaryDocument** element held the information for any additional documents that needed to accompany this document. These additional documents could be scanned in and attached in a base64 Binary format.

AncillaryDocument	
type	xsd:base64Binary
derivedBy	extension

Generated with XMLSpy Schema Editor www.xmlspy.com

The **DocumentBody** element structure contains information about that was specific to that particular document.

Satisfaction



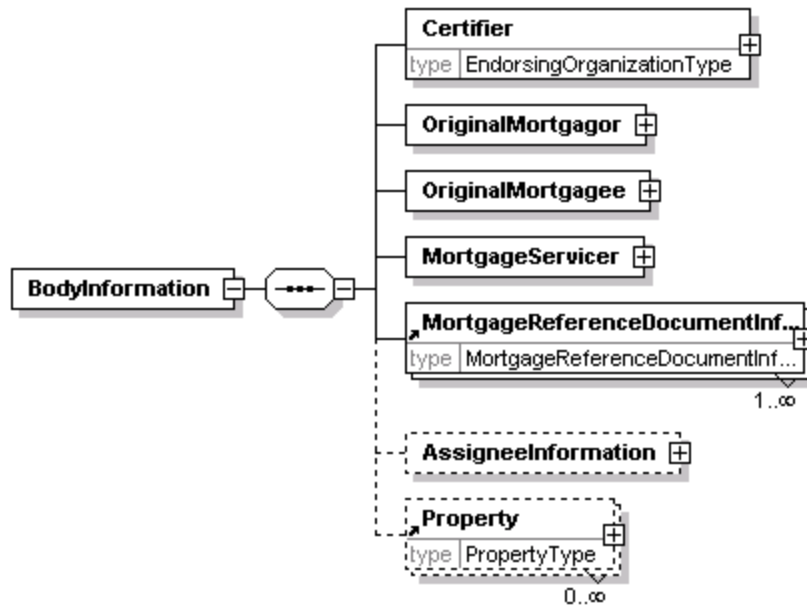
Generated with XMLSpy Schema Editor www.xmlspy.com

The **Mortgagor** and **Mortgagee** elements contains the information about Corporations or Individuals that represented the respective roles.

The **MortgageReferenceDocumentInformation** element structure contains information about the mortgage document that was being satisfied.

The **Property** element structure contains information about the property of the mortgage.

Certificate of Release

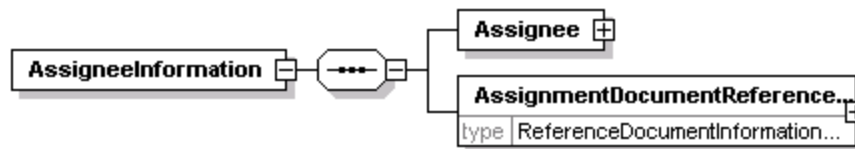


Generated with XMLSpy Schema Editor www.xmlspy.com

The **Certifier**, **OriginalMortgagor**, **OriginalMortgagee** and **MortgageServicer** elements contains the structure to identify the Corporation or Individual that represented those roles in the document.

The **MortgageReferenceDocumentInformation** element structure contains information about the mortgage document that was being satisfied.

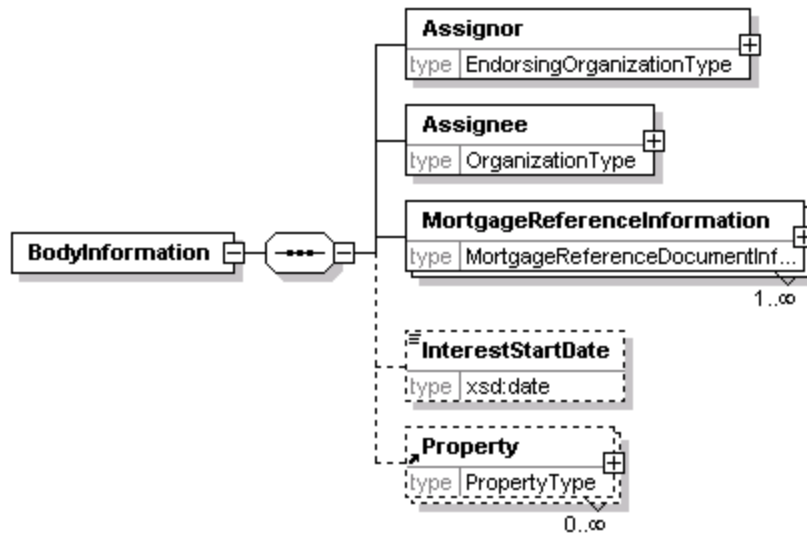
The **AssigneeInformation** element structure contains information about the assignment of the mortgage. The **Assignee** element contains the structure to identify the Corporation or Individual that represented that role. The **AssignmentDocumentReferenceInformation** element structure contains information about the assignment of mortgage document that was recorded.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **Property** element structure contains information about the property of the mortgage.

Assignment of Mortgage



Generated with XMLSpy Schema Editor www.xmlspy.com

The **Assignor** and **Assignee** elements contains the structure to identify the Corporation or Individual that represented those roles in the document.

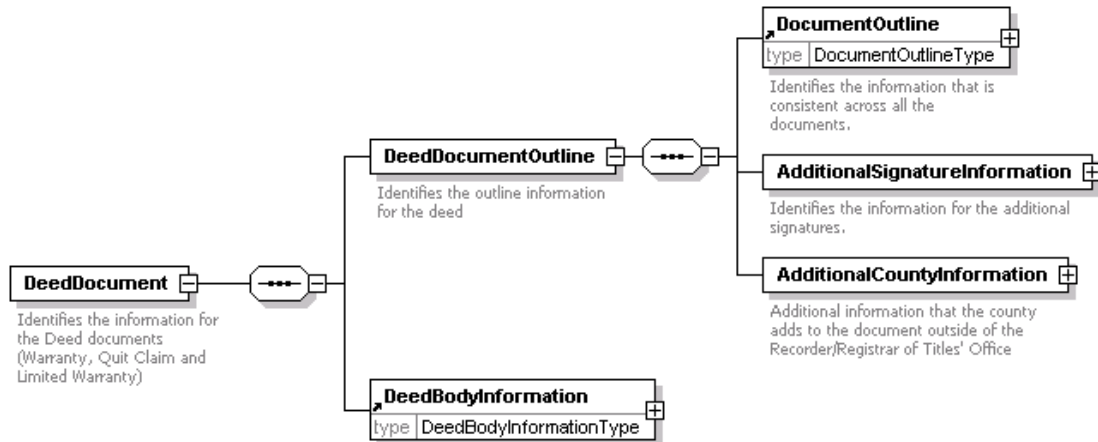
The **MortgageReferenceDocumentInformation** element structure contains information about the mortgage document that was being satisfied.

The **InterestStartDate** element contains information about the start date of the interest of the loan.

The **Property** element structure contains information about the property of the mortgage.

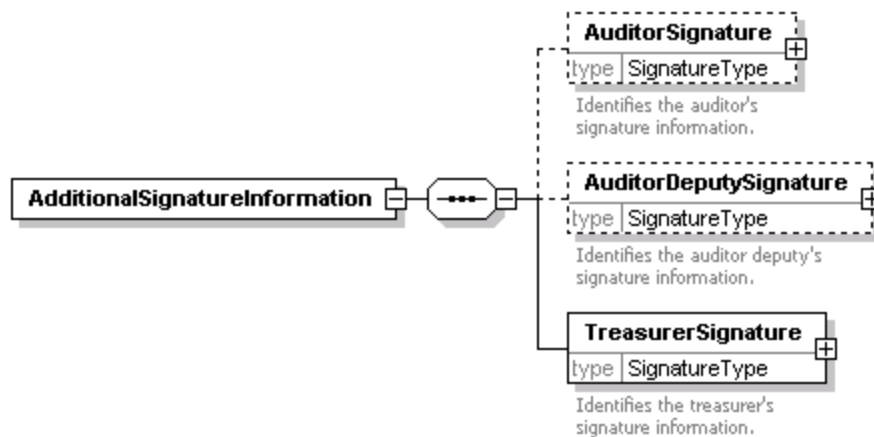
Deed

The **Deed** schema reused the above concept but added another level to the outline structure to accommodate the seller's signature and additional county information specific to deeds.



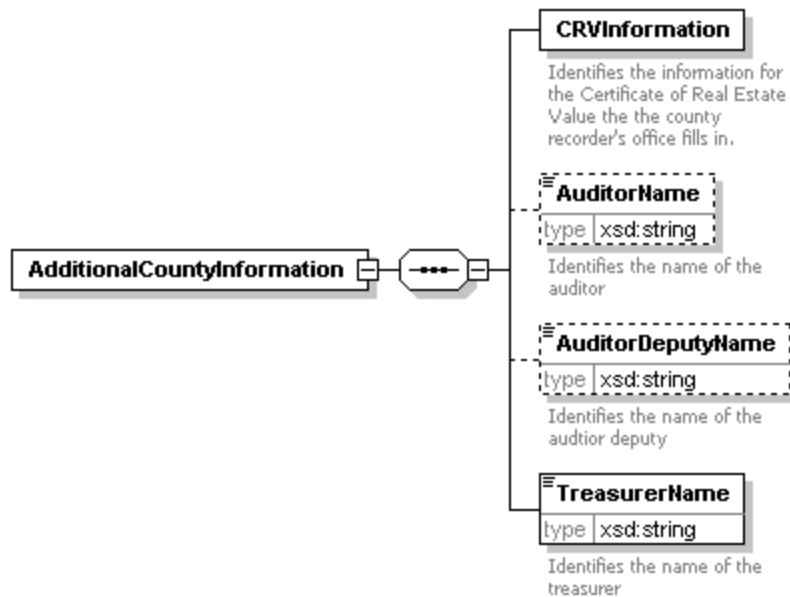
Generated with XMLSpy Schema Editor www.xmlspy.com

The **AdditionalSignatureInformation** element structure contains the information about the signatures of additional county personnel (ie. the auditor, auditor deputy and treasurer).



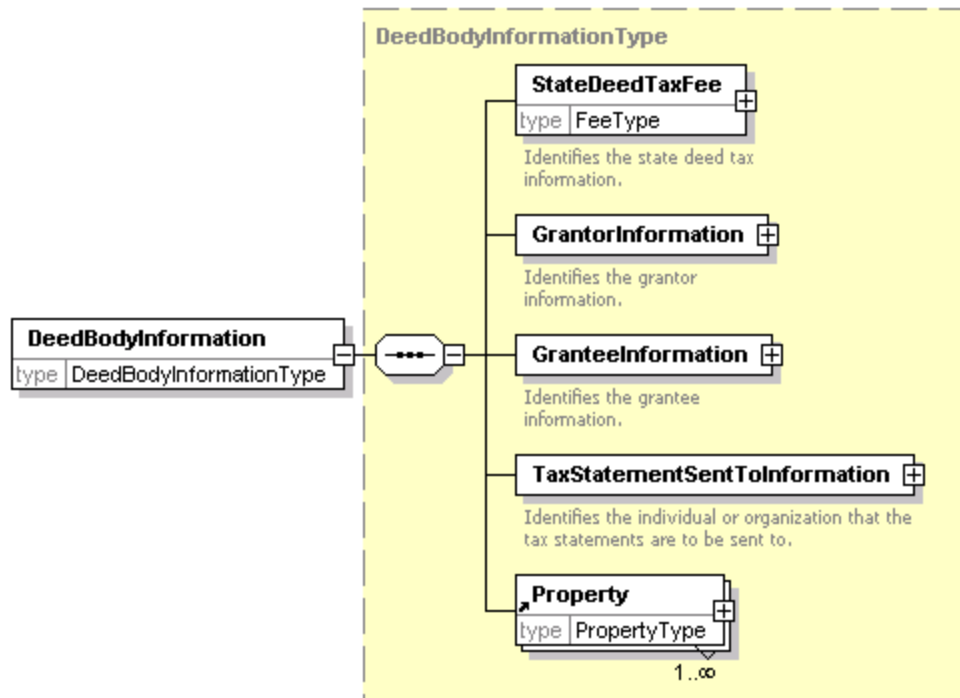
Generated with XMLSpy Schema Editor www.xmlspy.com

The **AdditionalCountyInformation** element structure contains the status and number of the CRV, the auditor, auditor deputy's, and treasurer's name.



Generated with XMLSpy Schema Editor www.xmlspy.com

Deed Body Information:



Generated with XMLSpy Schema Editor www.xmlspy.com

The **StateDeedTaxFee** element structure contains information about the state deed tax that was calculated.

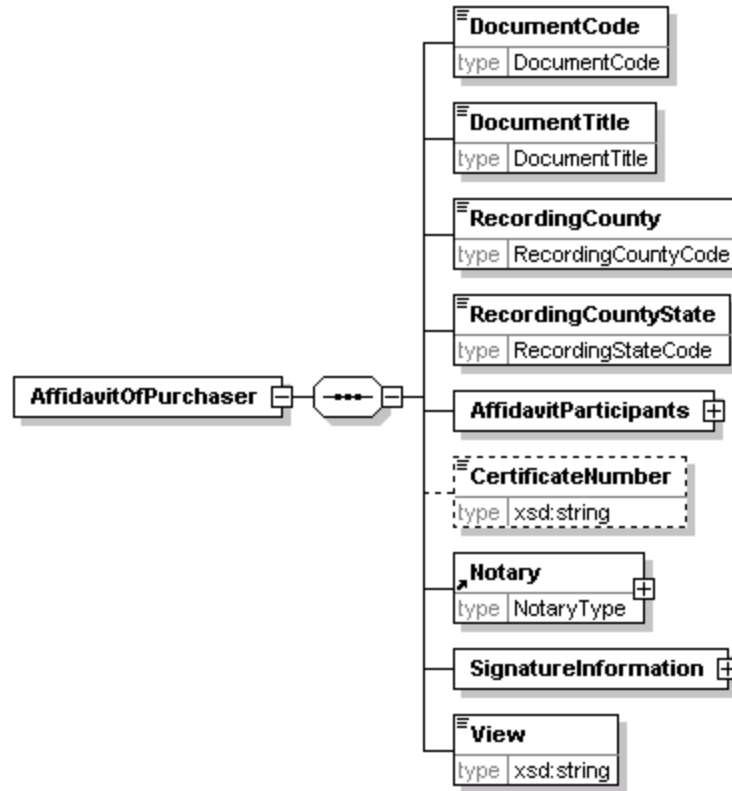
The **GrantorInformation** and **GranteeInformation** element structure contains the information about the Corporation or Individuals that represent those roles in the document.

The **TaxStatementSentToInformation** element structure contains the information about who and where the tax statements are to be sent.

The **Property** element structure contains information about the property that was purchased.

Affidavit Of Purchaser

The **AffidavitOfPurchaser** schema reused the structures from the above schemas, but its layout was different due to it's unique format.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **DocumentCode** and **DocumentTitle** elements identify the code and type of the document.

The **RecordingCounty** and **RecordingCountyState** elements identified the county and state that the property resided in.

The **AffidavitParticipants** element structure contains individuals and their roles that were represented in the document.

The **CertificateNumber** element contains the torrens certificate number of the affidavit.

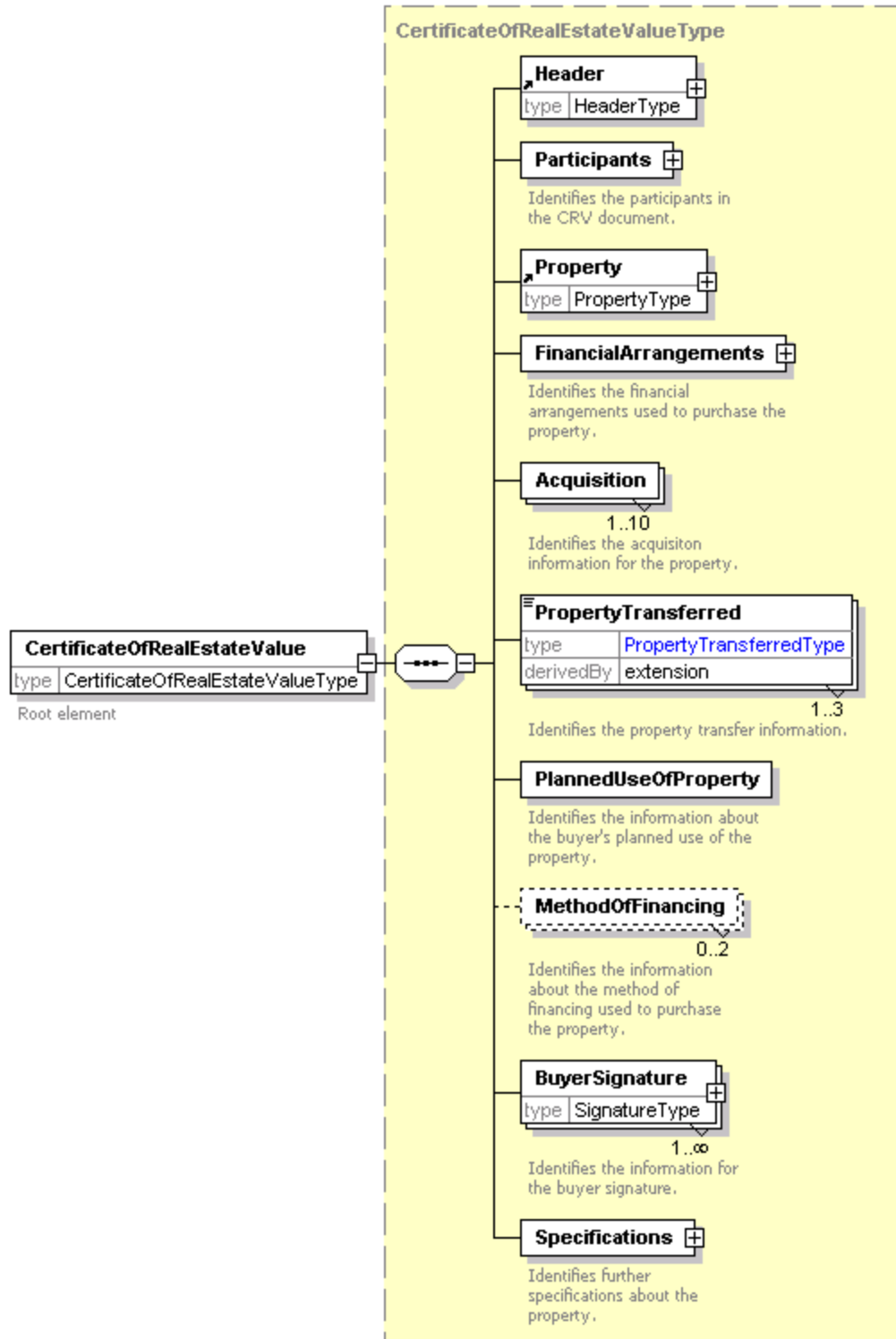
The **Notary** element structure contains information about the notary's name, the notary's commission information, the date the document was notarized and the seal of the notary.

The **View** element structure allows for a style sheet to accompany the document to render the XML into a user-friendly format.

The **SignatureInformation** element structure contains the information need to identify the signatures of all the people that would sign the document.

Certificate of Real Estate Value

The Certificate of Real Estate Value document identifies more detailed information about the property and the buyers and sellers of the property.



The **Header** element structure identifies the document code, document title, document date and reference information.

The **Participants** element structure contains the information about the buyers and sellers of the property.

The **Property** element structure contains information about the property that was purchased.

The **FinancialArrangements** element structure contains information about the personal property total, purchase price, interest and down payment of the property.

The **Acquisition** element identifies the reasons for the purchase of the property.

The **PropertyTransferred** element identifies whether there was buildings or just land transferred.

The **PlannedUseOrProperty** element identifies what the buyer intends to use the land for.

The **MethodOfFinancing** element identifies what the financing methods were to acquire the property.

The **BuyerSignature** element structure contains the information about the type of signature used to sign the document.

The **Specifications** element structure contains the information about the property such as the school district and farm land information as well as the current and previous year's market value.

Version 1.1

Background:

A decision was made by the Electronic Real Estate Recording Task Force (ERERTF) to be compliant with the national standards and use Version 1.05 of the Property Records Industry Association (PRIA) DTD National Standards instead of creating their own version of standards for the State of Minnesota.

Version 1.1 was designed based on Version 1.05 of the PRIA DTD National Standards. Extension Structures were used following the PRIA Extension Standards to accommodate additional information that was not accounted for in the PRIA DTD Standards. All documented PRIA naming standards were followed.

Please see PRIA's website for the complete standards and Version 1.05 DTD:

<http://taskforce.cifnet.com/priaus/>

The following rules were enforced:

1. Schemas would be used to identify the data standards (A schema was created from PRIA's Version 1.05 DTD as a starting point)
2. Each document would have its own schema (Satisfaction, Certificate of Release, Affidavit of Purchaser, Assignment of Mortgage, Deeds (Warranty Deed, Limited Warranty Deed, Quit Claim Deed), and the CRV).
3. All PRIA elements and attributes would remain in the schema even if they were not used by the Minnesota Standards.
4. Current PRIA element and attribute structures reused in the Minnesota Extensions would remain consistent as originally designed by PRIA.
5. Existing PRIA relationships would be maintained unless a required field didn't support our existing business rules.
6. Business rules would be defined in each schema as much as possible using the Minnesota Extensions to reflect that document's requirements.

The following design standards were implemented:

1. All document schema files started with an upper case value
2. All datatype files started with "dt"
3. All sub-schema files used to create the document schemas started with a lower case value
4. Typing of element structures was used to allow for reuse of these structures and ease of maintenance
5. Grouping of attributes was used to allow for reuse of these groupings and ease of maintenance
6. W3C XML Signature standards were followed for the representations of the persons signing the document (endorsers, notaries, county personnel, buyers and sellers of the property)

There were 2 schemas designed:

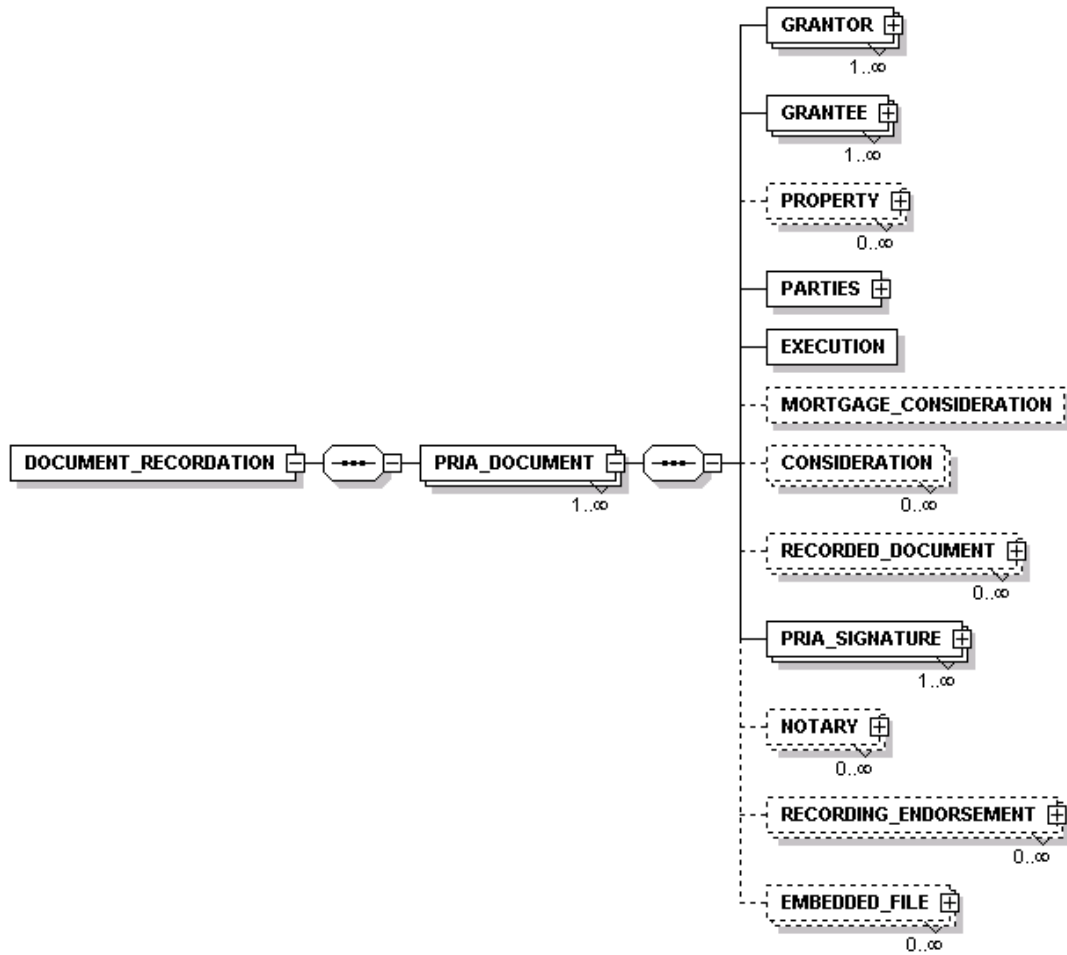
- Satisfaction
- Certificate of Release

PRIA Version 1.05 DTD was converted to a schema and gap analysis was conducted to map elements and attributes from the Minnesota Version 1.0 Schema to the PRIA Version 1.05 DTD to create the baseline for the Version 1.1 Minnesota Schema.

The spreadsheets PRIA_V1.05SATMN.xls and PRIA_V1.05CORMN.xls were created to show the mapping between the elements and attributes from Version 1.0 to Version 1.1. The red text indicates an extension had to be added to accommodate a Minnesota only requirement. The blue text indicates a PRIA element or attribute that was not in the Minnesota Version 1.0 schema. The black text indicates a match between the Minnesota Schema and the PRIA DTD. Please refer to these for the detailed mapping between the elements and attributes.

The following diagram depicts the PRIA Version 1.05 DTD converted to a Schema. This was the baseline for the Version 1.1 of the Minnesota Standard.

Version 1.1 Baseline



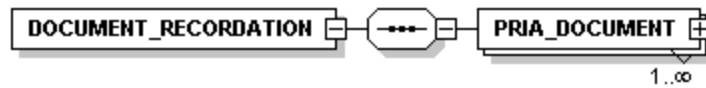
Satisfaction

Element Descriptions:

1. DOCUMENT_RECORDATION

The **DOCUMENT_RECORDATION** element structure is the root or top-level element of the schema and is designed so it can handle multiple different documents of the **PRIA_DOCUMENT** element structure.

Version 1.1 DOCUMENT_RECORDATION



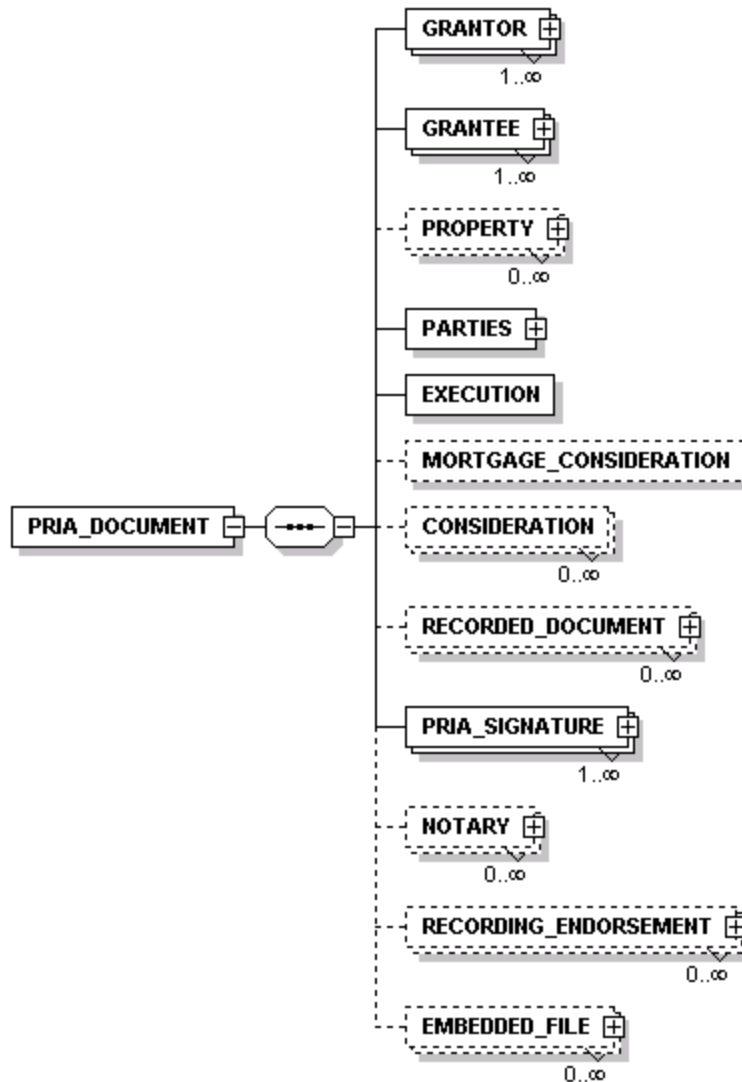
Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

No Minnesota Extensions needed to be added.

2. PRIA_DOCUMENT

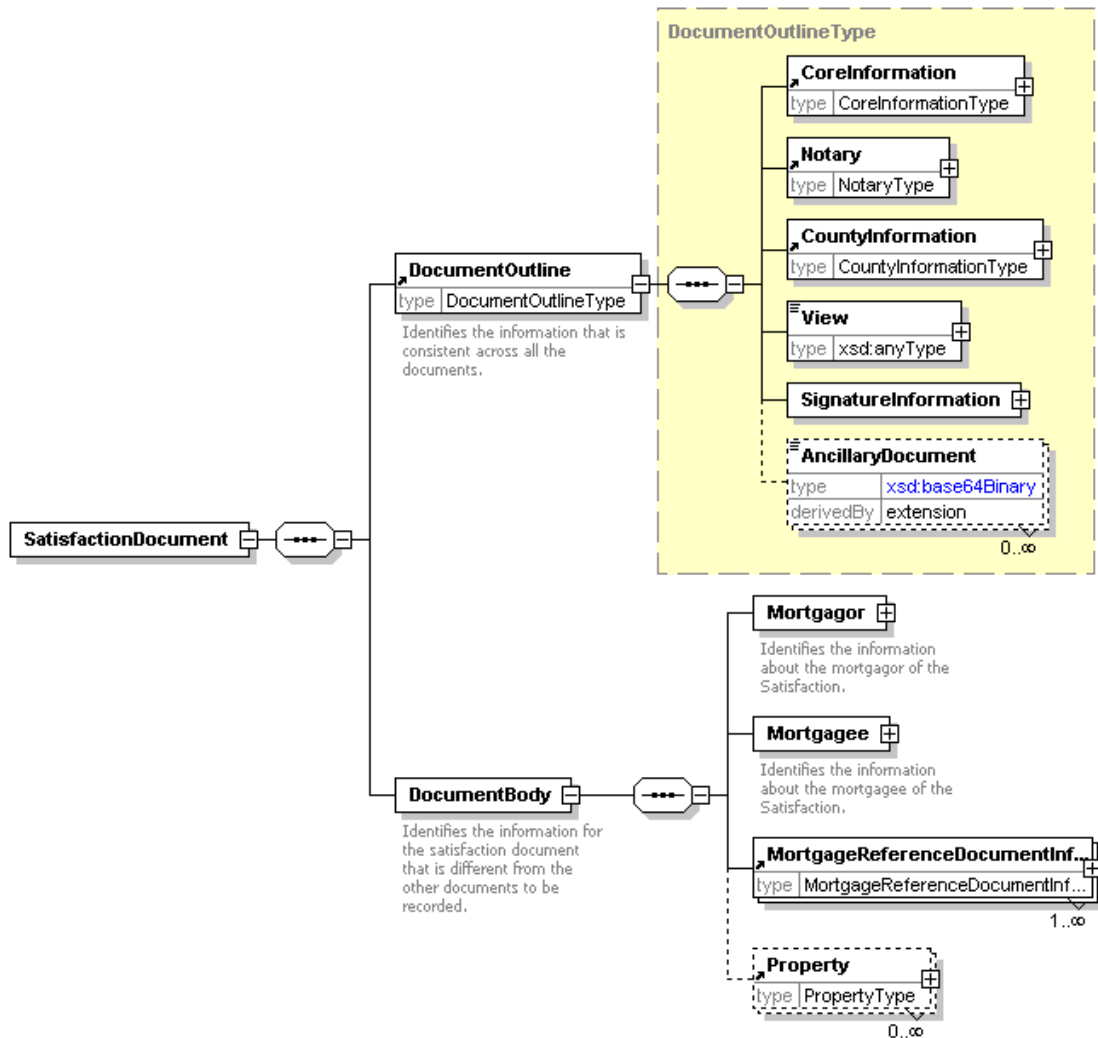
The **PRIA_DOCUMENT** element structure contains all the information about the document.



Generated with XMLSpy Schema Editor www.xmlspy.com

This was mapped to the Version 1.0 **SatisfactionDocument** element structure. The concept of grouping Outline related information and Body related information was dropped and the remaining elements were used in the mapping.

Version 1.0 SatisfactionDocument



Generated with XMLSpy Schema Editor www.xmlspy.com

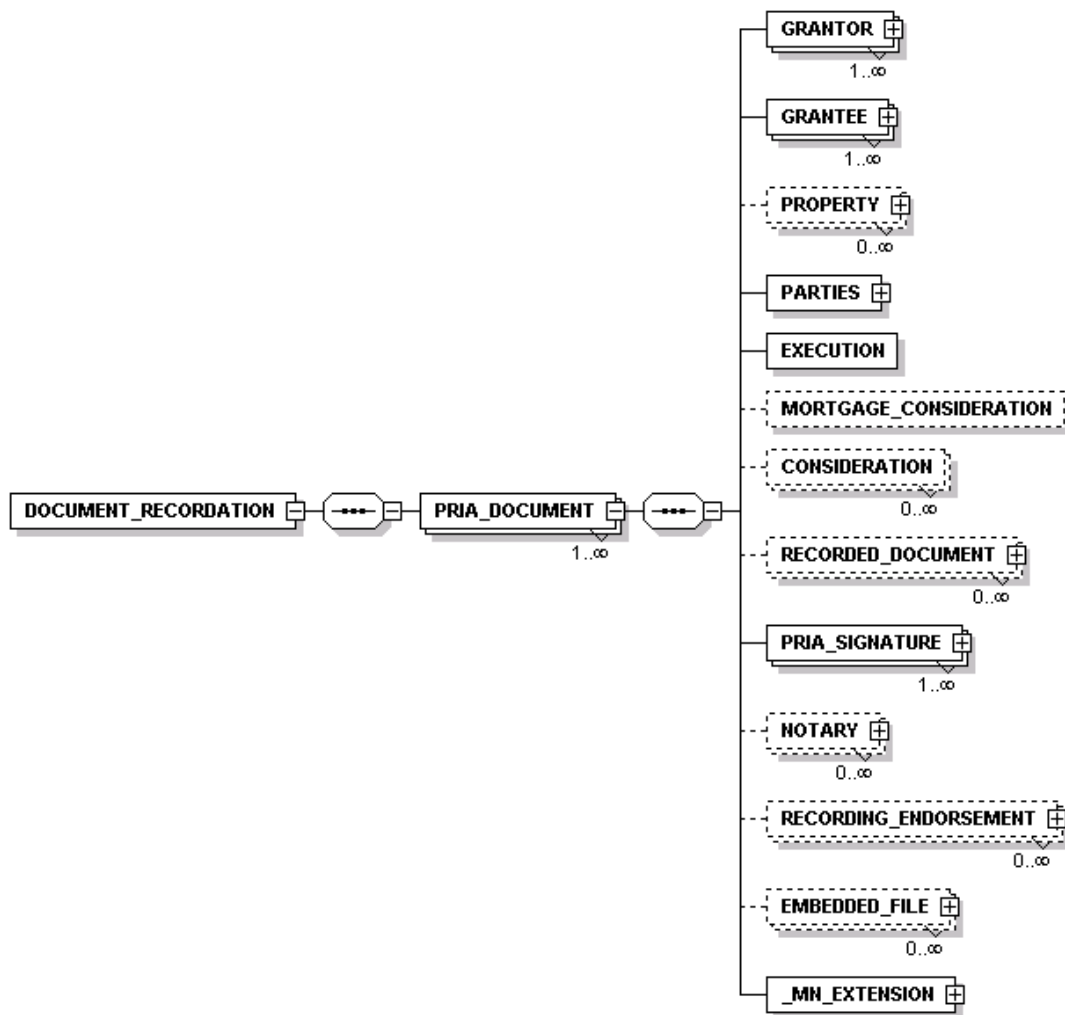
Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION**, had to be added to accommodate the following Minnesota requirements:

1. The **_MN_PRIADocumentID** attribute was added for indicating the portion of the document that is being signed by the endorser
2. The **_MN_PropertyCode** attribute was added for identifying if the property is "Abstract", "Torrens" or "Both"
3. The **_MN_SubType** attribute was added for indicating if the mortgagee had a name change or not (eg. by corporation or by corporation name change)
4. The **_MN_Total_Fees** attribute was added for the total fees of the recording

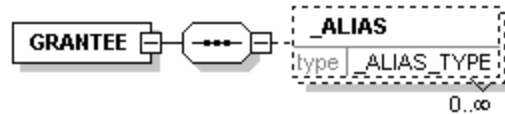
5. The **_MN_REFERENCE** element was added to identify the reference numbers (eg. Loan Number)
6. The **_MN_VIEW** element was added for holding the stylesheet that renders the XML into a user-friendly format

Version 1.1 PRIA_DOCUMENT



3. GRANTEE

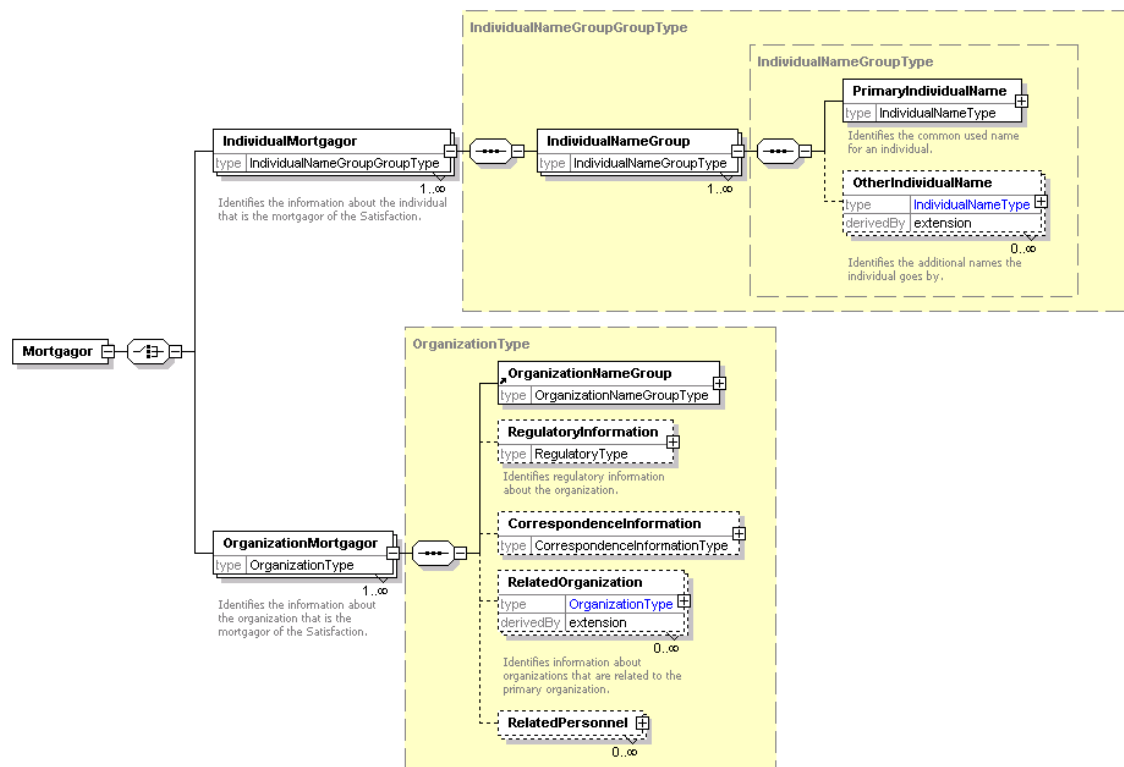
The **GRANTEE** element structure contains all the information about the Grantee or Mortgagor of the document.



Generated with XMLSpy Schema Editor www.xmlspy.com

This structure mapped to the Version 1.0 **Mortgagor** element in the Satisfaction document.

Minnesota Version 1.0 Mortgagor:



Generated with XMLSpy Schema Editor www.xmlspy.com

One of the business rules that needed to be maintained was the relationship of the mortgagor individuals.

For example:

THAT CERTAIN MORTGAGE owned by the undersigned, a **National Banking Association** under the laws of **The United States of America**, DATED, **June 9, 1995** executed by **Jim Johnson and Mary Johnson**, as husband and wife and

Nancy James and Bill James, as wife and husband to U.S. Bank National Association ND MORTGAGEE, and filed for record **July 14, 1995**, as Document Number **10298734** in the Office of the **County Recorder** of **Aitkin County, Minnesota**, is, with the indebtedness thereby secured, fully paid, satisfied, released and discharged.

The requirement to keep Jim and Mary Johnson as husband and wife and Nancy and Bill James as husband and wife is necessary to be able to recreate the correct format when displaying the document in the user-friendly view.

The **GRANTEE** element had a **_MaritalStatusType** attribute which contained the following values: “Married, Not Provided, Divorced, Separated, Unknown, Not Married” but didn’t handle the “husband and wife” and “wife and husband” relationship. Minnesota needed the latter relationship for creating the document in the appropriate format in the user-friendly view.

If the current structure was used, each person would be represented by a **GRANTEE** element using the value of “Married” for the **_MaritalStatusType**. This was not sufficient as the correct relationship needed to be identified.

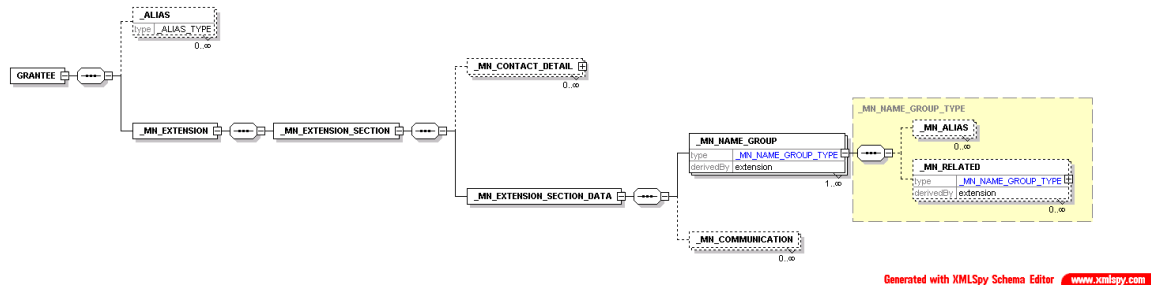
If “husband and wife” and “wife and husband” were added to the values for the **_MaritalStatusType** attribute, then a relationship would need to be created to group the appropriate **GRANTEE** elements together. The schema, as it stands, does not allow for a relationship to be built between the **GRANTEE** elements so adding these new values would not solve the problem.

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION**, had to be added to accommodate the following Minnesota requirements:

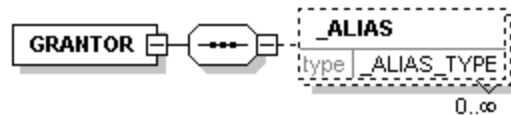
1. Attributes were added for the address of the Grantee
2. The **_MN_NAME_GROUP** element structure was added to accommodate the name and alias names of the grantor. This element contained the **_MN_RelationshipStatus** attribute which identified the “as husband and wife”, “as wife and husband” and “a single person”. This element grouped the related grantors together that pertained to the relationship
3. The **_MN_RELATED** element structure was added for the organizations that were related to the grantor (eg. a merger or assignment from one organization to another)
4. THE **_MN_COMMUNICATION** element was added for allowing more than one contact means (ie. phone number, pager number, fax number, etc.)

Version 1.1 GRANTEE



4. GRANTOR

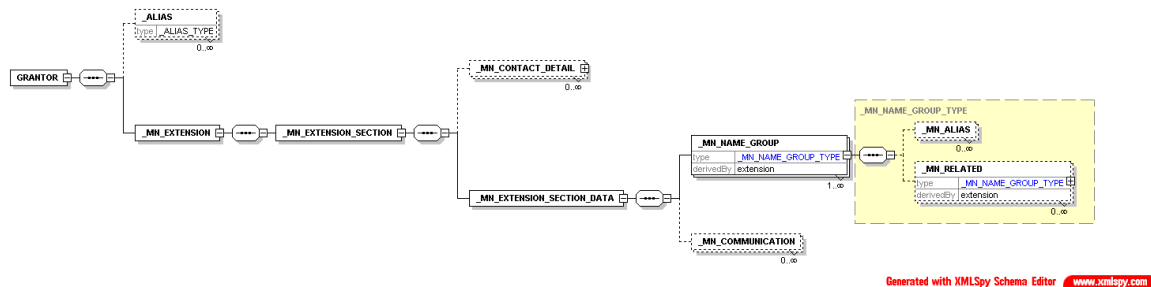
The **GRANTOR** element contains information about the Grantor or Mortgagee of the document.



Generated with XMLSpy Schema Editor www.xmlspy.com

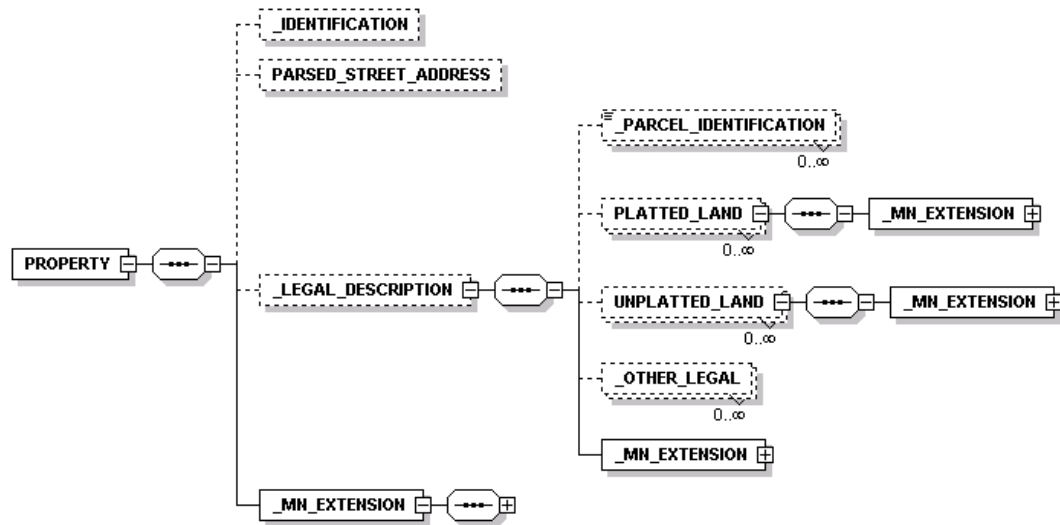
This structure mapped to the Version 1.0 **Mortgagee** element and was created the same as the **GRANTEE**.

Version 1.1 GRANTOR



5. PROPERTY

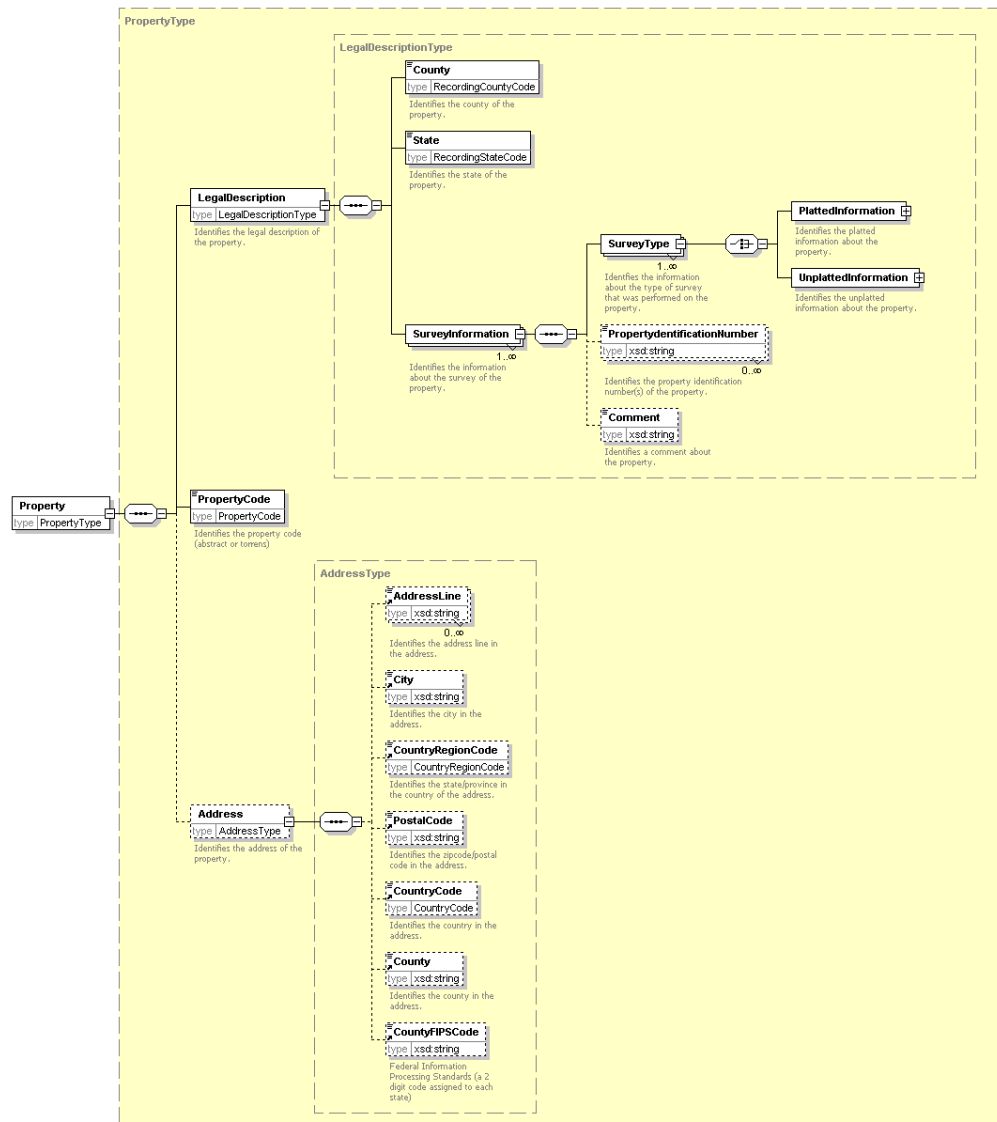
The **PROPERTY** element structure contains the information about the property on the document



Generated with XMLSpy Schema Editor www.xmlspy.com

This structure mapped to the Version 1.0 **Property** element.

Version 1.0 Property



Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION**, had to be added to the **PROPERTY** element to accommodate the following Minnesota requirements:

1. THE **_MN_PropertyCode** attribute was added to indicate if the property is “Abstract”, “Torrens” or “Both”.
2. THE **_MN_Country** attribute was added to indicate the country the property was located
3. THE **_MN_CountryCode** attribute was added to indicate the code of the country the property was located in

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **PLATTED_LAND** element to accommodate the following Minnesota requirements:

1. THE **_MN_PartOffFlag** attribute was added to indicate that the legal description represented only part of the property

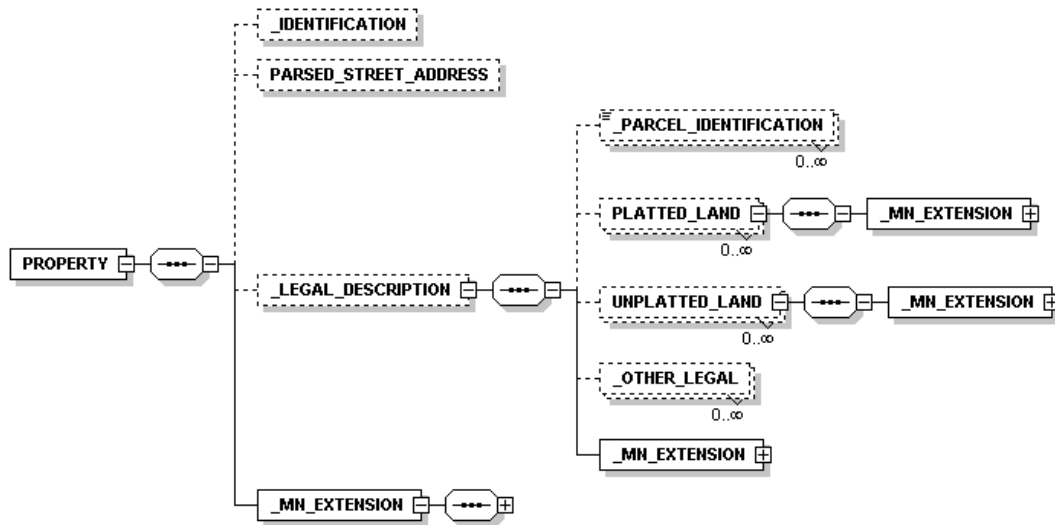
A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **UNPLATTED_LAND** element to accommodate the following Minnesota requirements:

1. THE **_MN_QuarterQuarterSectionIdentifier** attribute was added for identifying the the quarter quarter section
2. THE **_MN_QuarterQuarterQuarterSectionIdentifier** attribute was added for identifying the quarter quarter quarter section
3. THE **_MN_QuarterQuarterQuarterQuarterSectionIdentifier** attribute was added for identifying the quarter quarter quarter quarter section

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **_LEGAL_DESCRIPTION** element to accommodate the following Minnesota requirements:

1. THE **_MN_OtherLot** attribute was added for the value of the additional lot information (eg. Parks) on the property

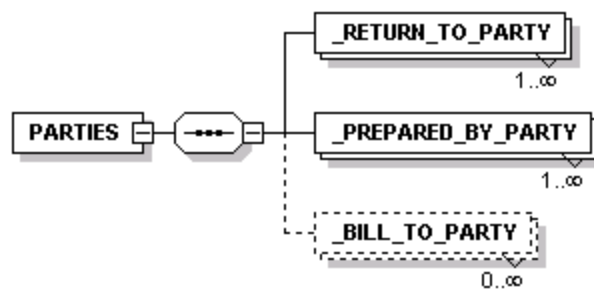
Version 1.1 PROPERTY



Generated with XMLSpy Schema Editor www.xmlspy.com

6. PARTIES

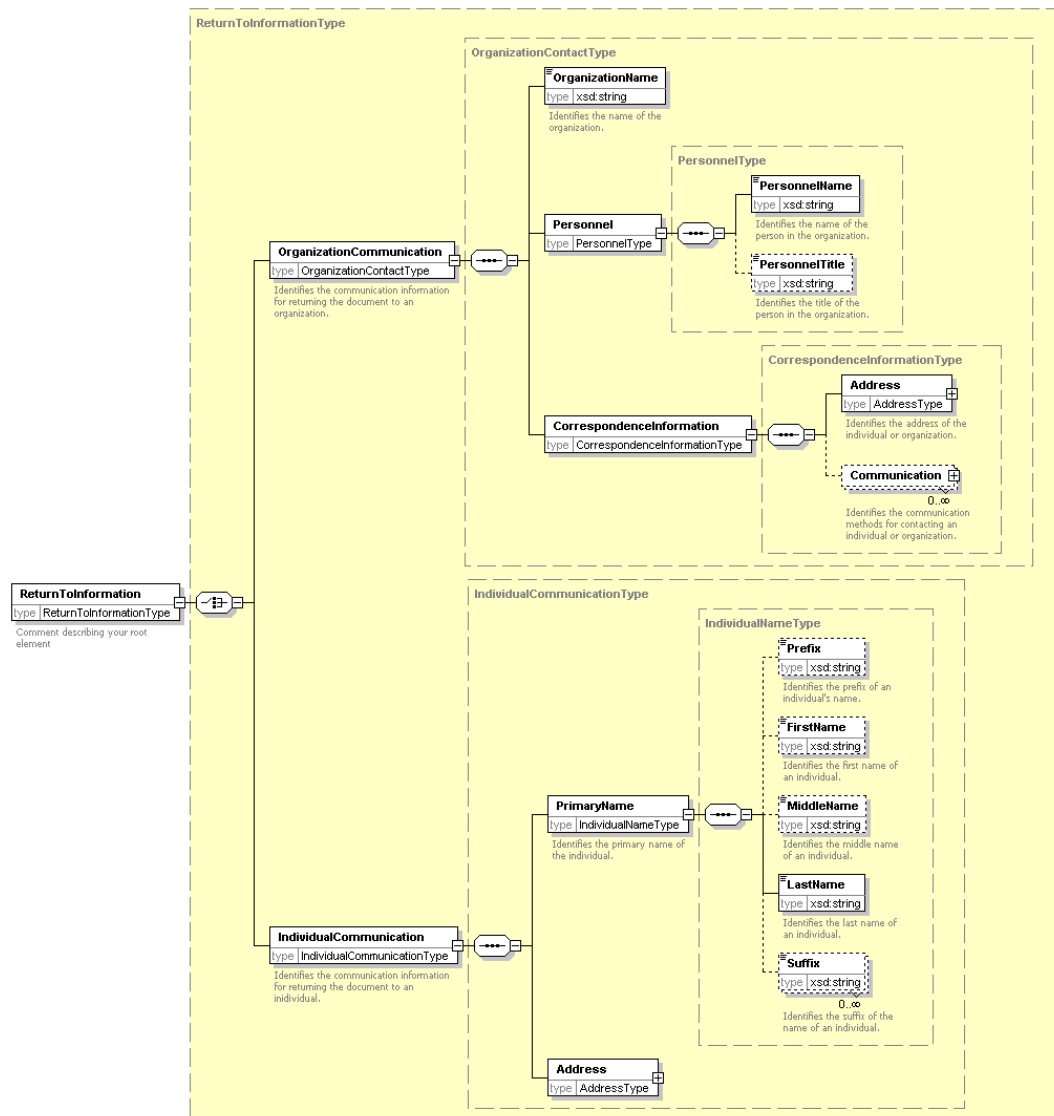
The **PARTIES** element structure contains the information about the additional parties involved in the Satisfaction outside of the grantor and grantee.



Generated with XMLSpy Schema Editor www.xmlspy.com

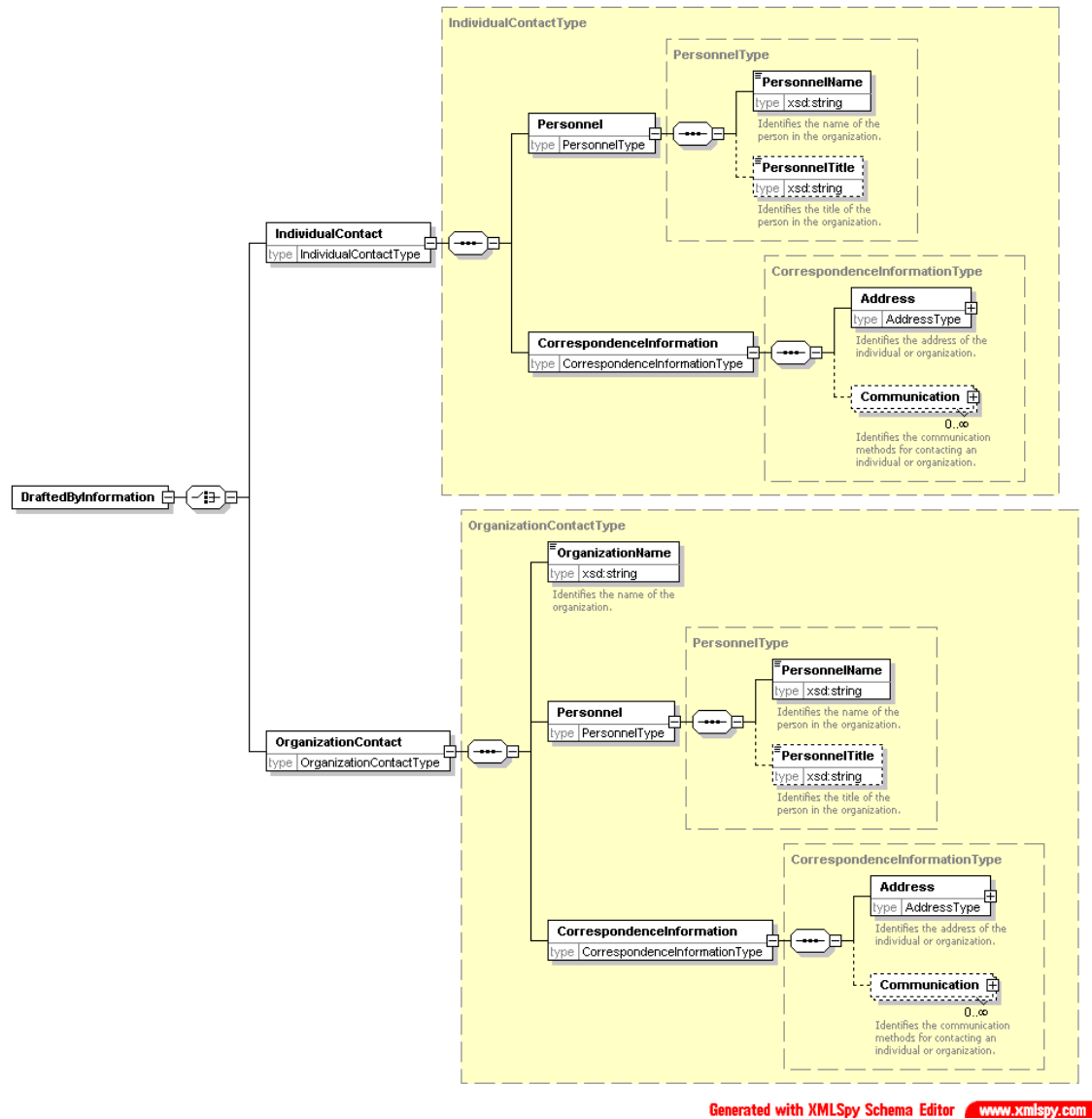
The **_RETURN_TO_PARTY** element mapped to the Version 1.0 **ReturnToInformation** element.

Version 1.0 ReturnToInformation



The **_PREPARED_BY_PARTY** element mapped to the Version 1.0 **DraftedByInformation** element.

Version 1.0 DraftedByInformation



Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **_PREPARED_BY_PARTY** element to accommodate the following Minnesota requirements:

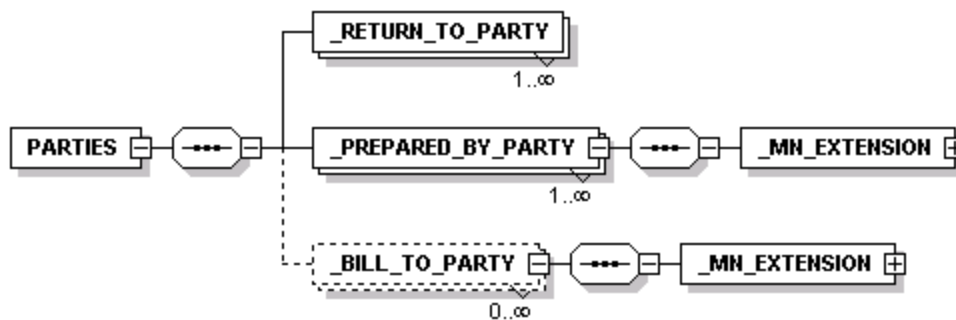
1. THE **_MN_COMMUNICATION** element was added for allowing more than one contact means (ie. phone number, pager number, fax number, etc.)

The **_BILL_TO_PARTY** did not have a corresponding Version 1.0 element or attribute to map to.

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **_BILL_TO_PARTY** element to accommodate the following Minnesota requirements:

1. THE **_MN_COMMUNICATION** element was added for allowing more than one contact means (ie. phone number, pager number, fax number, etc.)

Version 1.1 PARTIES



Generated with XMLSpy Schema Editor www.xmlspy.com

7. EXECUTION

The **EXECUTION** element contains information about the date, city, county and state that the document was signed in. This information was contained in the **DocumentOutline** element structure in Version 1.0.

Version 1.1 EXECUTION



Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

No Minnesota Extensions needed to be added.

8. MORTGAGE_CONSIDERATION

This element is not used by the Minnesota Satisfaction document.

Version 1.1 MORTGAGE_CONSIDERATION

MORTGAGE_CONSIDERATION

Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

No Minnesota Extensions needed to be added.

9. CONSIDERATION

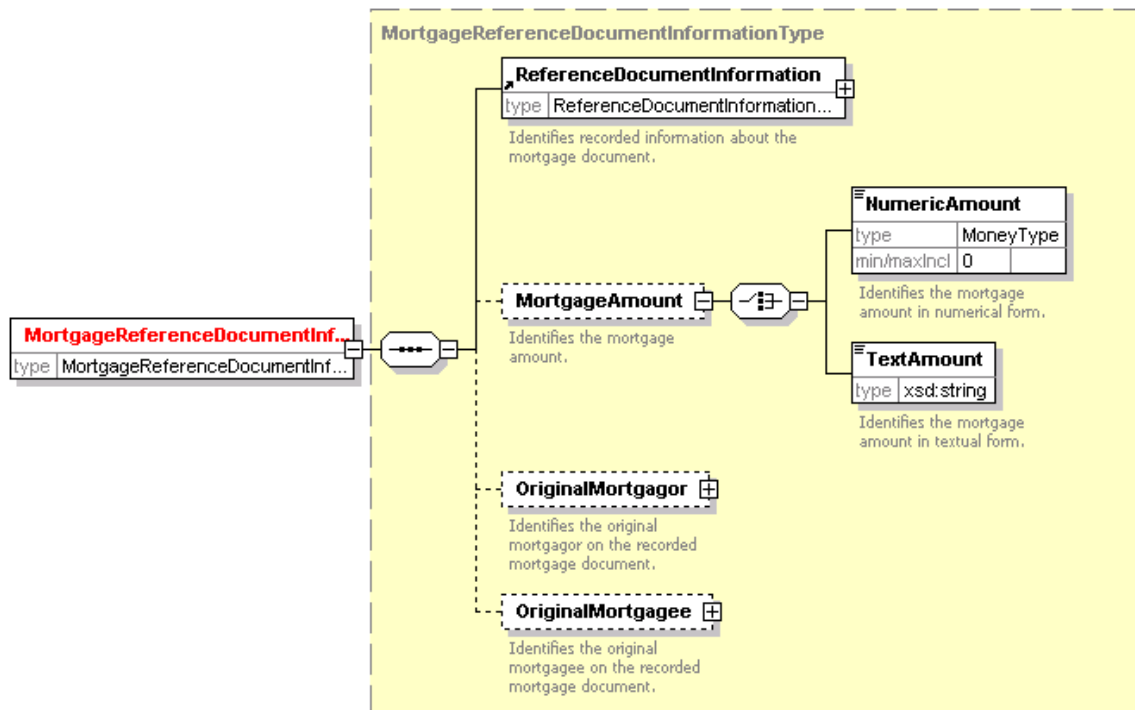
The **CONSIDERATION** element contains information about the amount of the mortgage.

MORTGAGE_CONSIDERATION

Generated with XMLSpy Schema Editor www.xmlspy.com

This information was contained in the Version 1.0 **MortgageAmount** element structure under the **MortgageReferenceDocumentInformation** element structure.

Version 1.0 MortgageAmount



Generated with XMLSpy Schema Editor www.xmlspy.com

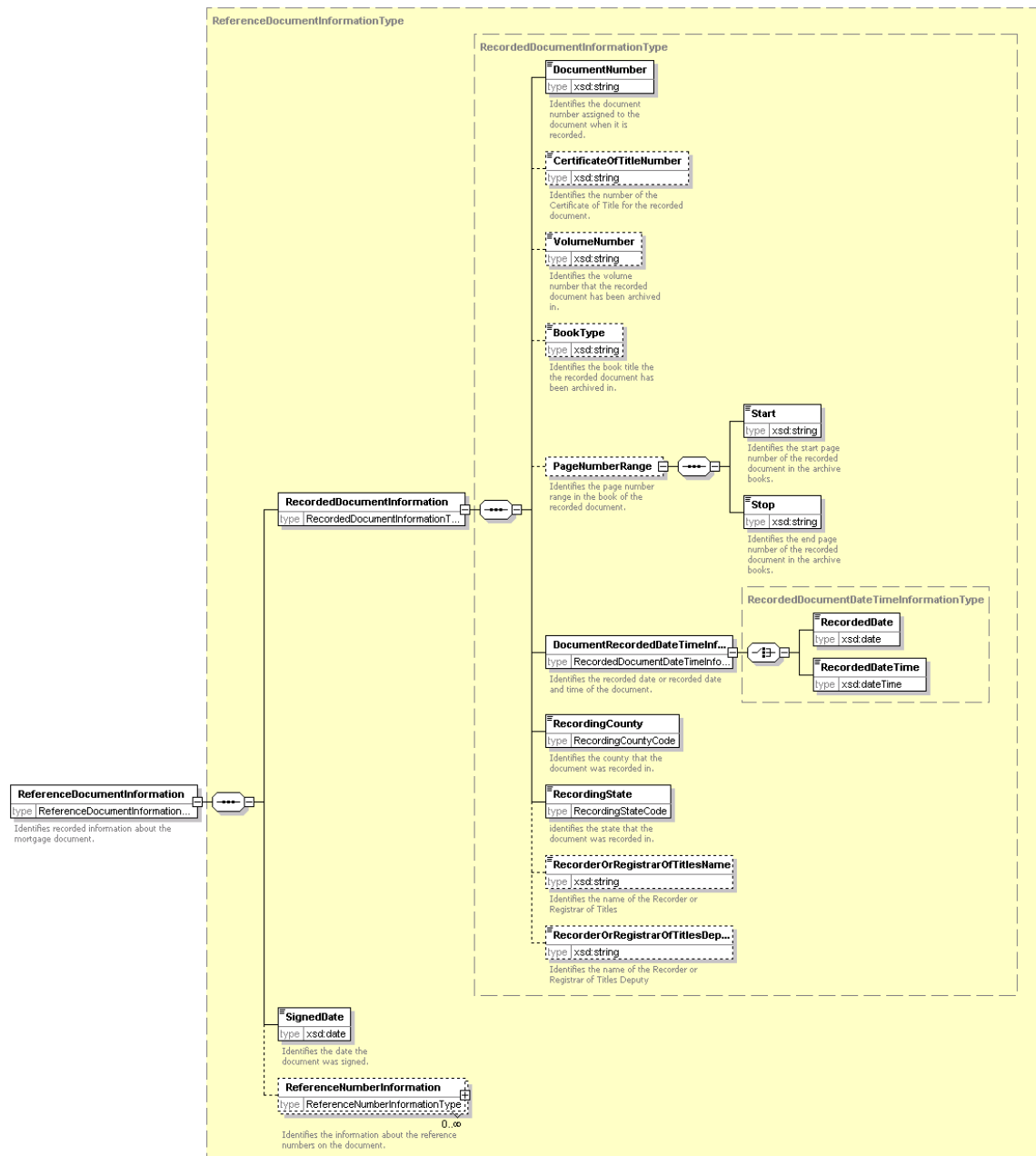
Extensions:

No Minnesota Extensions needed to be added.

10. RECORDED_DOCUMENT

The **RECORDED_DOCUMENT** element structure mapped to the Version 1.0 **ReferenceDocumentInformation** element structure.

Version 1.0 ReferenceDocumentInformation

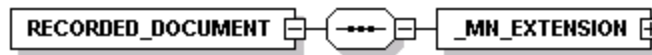


Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **RECORDED_DOCUMENT** element to accommodate the following Minnesota requirements:

1. THE **_MN_EndPageNumber** attribute was added for identifying the last page number that the document was recorded on in the book
2. THE **_MN_CertificateOfTitleNumber** attribute was added for the Torrens property
3. THE **_MN_PropertyCode** attribute was added for indicating if the recording of this property was “Abstract” or “Torrens”
4. THE **_MN_InstrumentDate** attribute was added for the signed date on the Mortgage
5. THE **_MN_REFERENCE** element was added for the Mortgage document reference numbers

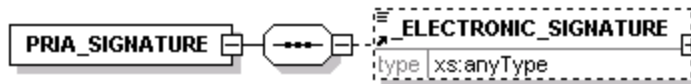
Version 1.1 RECORDED_DOCUMENT



Generated with XMLSpy Schema Editor www.xmlspy.com

11. PRIA_SIGNATURE

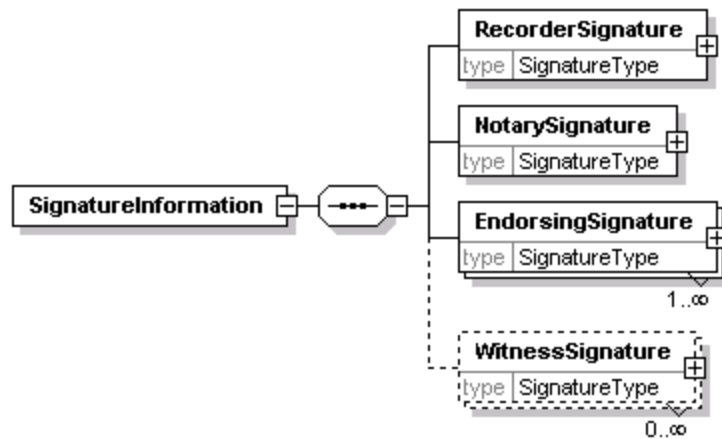
The **PRIA_SIGNATURE** element contains the information about the persons signing the document excluding the Notary and the County personnel.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **_ELECTRONIC_SIGNATURE** mapped to the Version 1.0 **EndorsingSignature** and **WitnessSignature** element structures under the **SignatureInformation** element.

Version 1.0 SignatureInformation



Generated with XMLSpy Schema Editor www.xmlspy.com

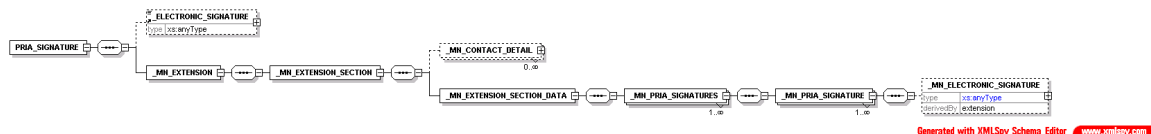
Extensions:

Minnesota required the need to group the persons signing the document for the appropriate organization they are signing for. The **PRIA_SIGNATURE** element structure did not allow for this grouping.

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **PRIA_SIGNATURE** element to accommodate the following Minnesota requirements:

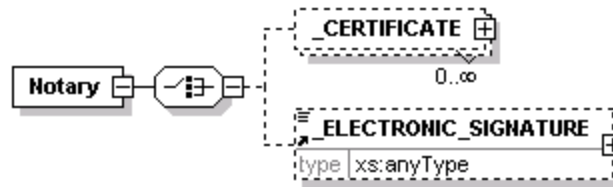
1. THE **_MN_PRIASignatureRootID** attribute was added to enable the Notary signature to reference the persons they had notarized (see **_MN_ElectronicSignatureIDRef** attribute under NOTARY extension)
2. THE **_MN_PRIA_SIGNATURES** element structure was added to group the signatures together and identify the organization they are signing for, if applicable
3. THE **_MN_PRIA_SIGNATURE** element structure was added which mirrored the Version 1.05 **PRIA_SIGNATURE** element structure

Version 1.1 PRIA_SIGNATURE



12. NOTARY

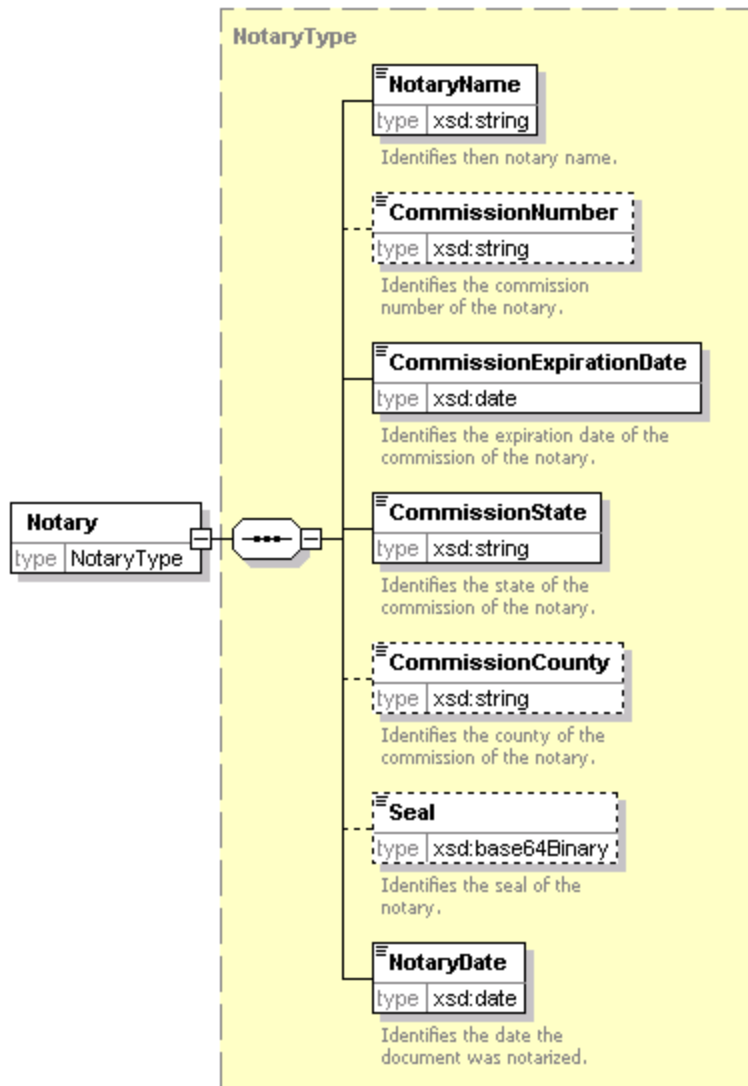
The **NOTARY** element structure contains all the information about the notary including the notary's signatures.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **NOTARY** element mapped to the Version 1.0 **Notary** element.

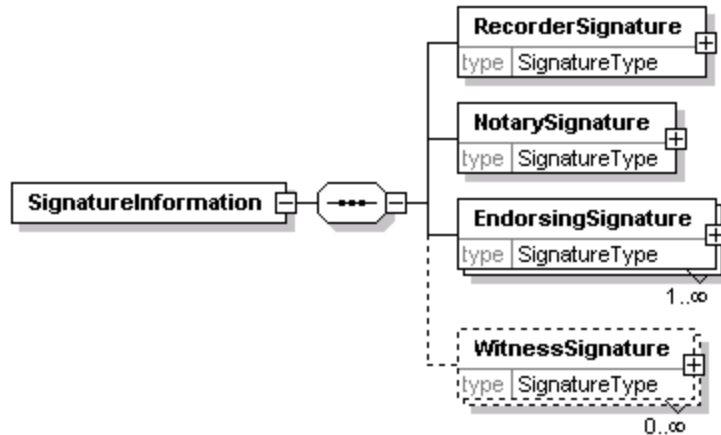
Version 1.0 Notary



Generated with XMLSpy Schema Editor www.xmlspy.com

The **NOTARY_ELECTRONIC_SIGNATURE** element mapped to Version 1.0 **NotarySignature** element structure under the **SignatureInformation** element.

Version 1.0 SignatureInformation



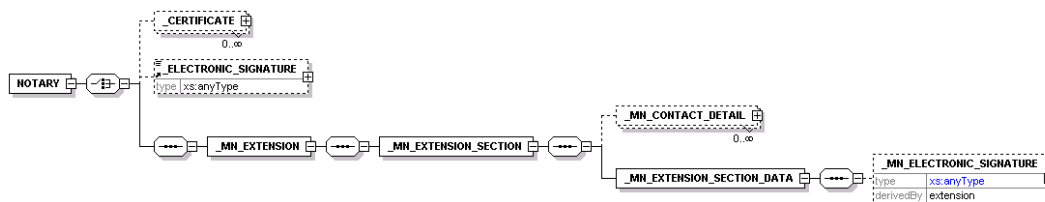
Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **NOTARY** element to accommodate the following Minnesota requirements:

4. THE **_MN_Seal** attribute was added for the image of the Notary seal
5. THE **_MN_ELECTRONIC_SIGNATURE** element was added with the **_MN_ElectronicSignatureIDRef** attribute to accommodate the reference to what part of the document the Notary was signing

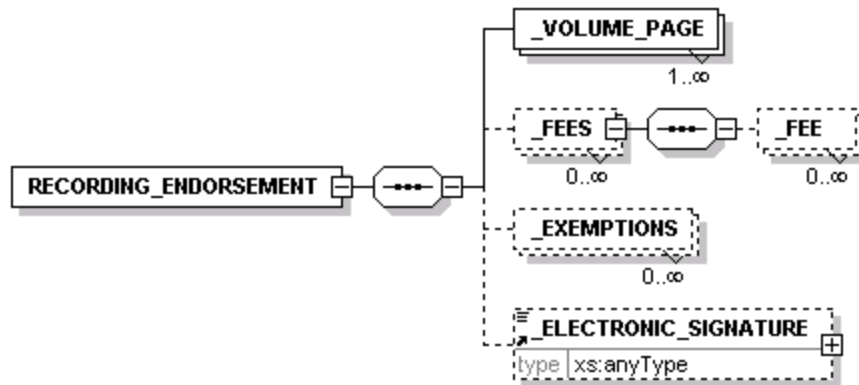
Version 1.1 NOTARY



Generated with XMLSpy Schema Editor www.xmlspy.com

13. RECORDING_ENDORSEMENT

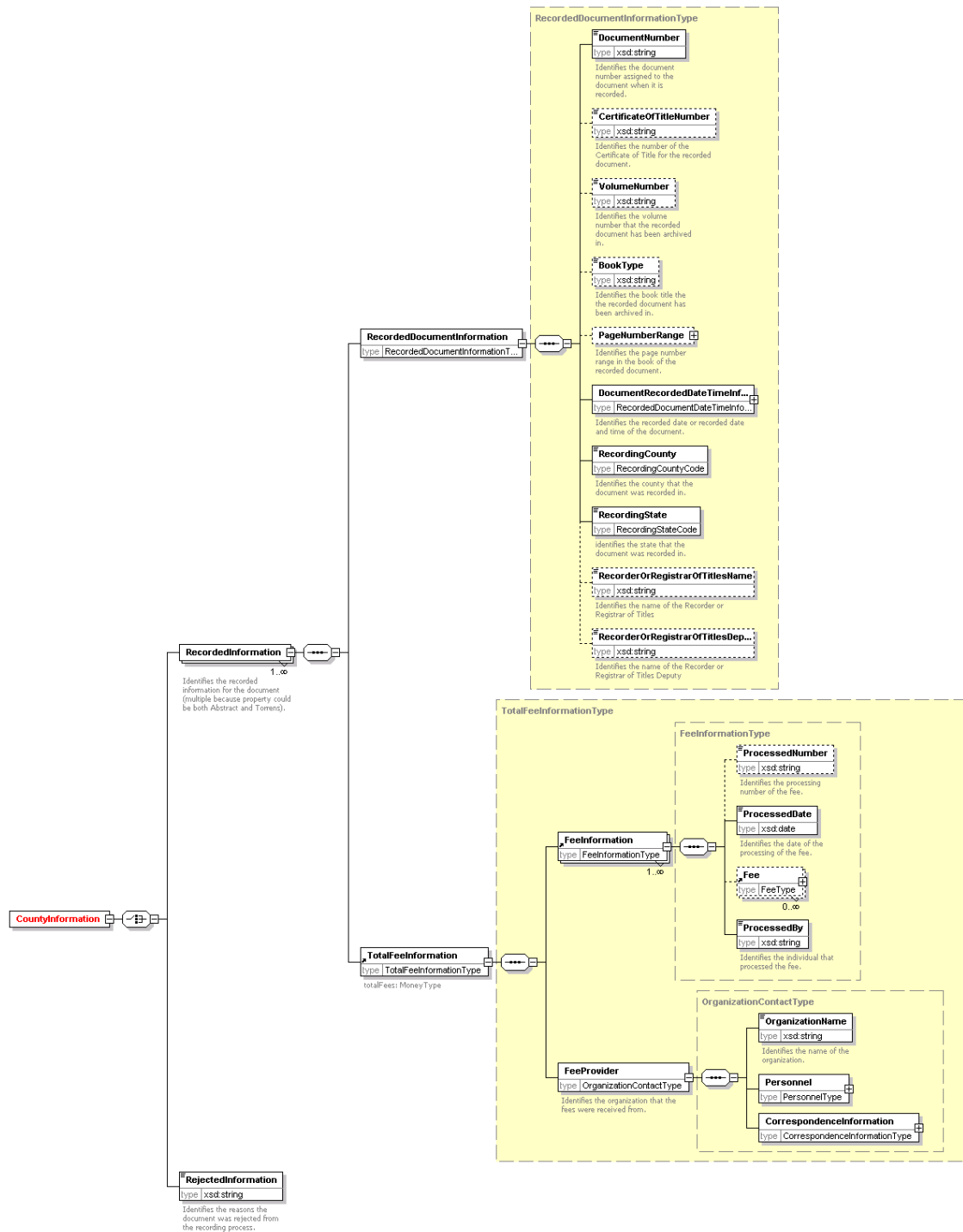
The **RECORDING_ENDORSEMENT** element structure contains the information about the recording of the document.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **RECORDING_ENDORSEMENT** element structure mapped to the Version 1.0 **RecordedInformation** element structure of Version 1.0 CountyInformation element.

Version 1.0 RecordedInformation



Extensions:

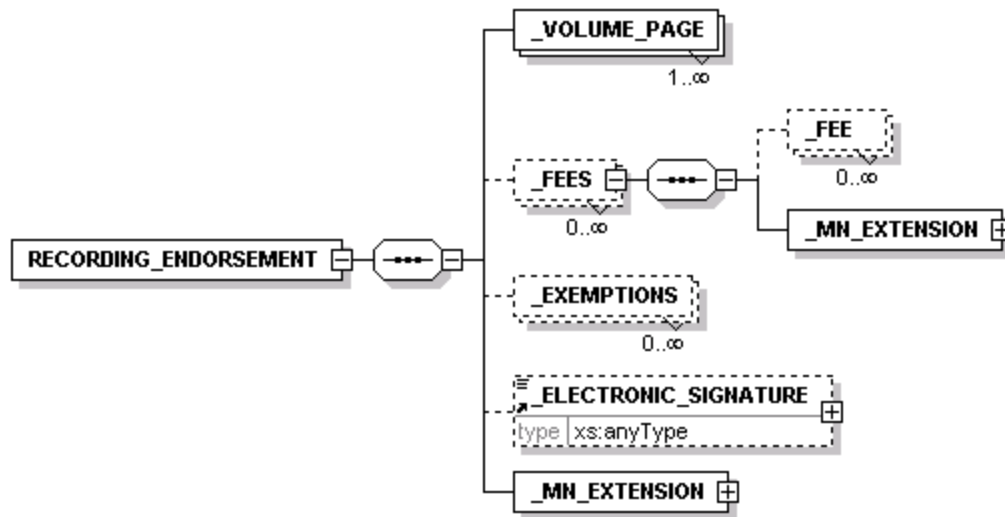
A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **FEES** element to accommodate the following Minnesota requirements:

1. THE **_MN_ProcessedBy** attribute was added for the person that processed the recording fees
2. THE **_MN_ProcessedDate** attribute was added for the date the recording fees were processed

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **RECORDING_ENDORSEMENT** element to accommodate the following Minnesota requirements:

1. THE **_MN_CertificateOfTitleNumber** attribute was added for the Torrens recordings
2. THE **_MN_DeputysName** attribute was added for the name of the deputy that signed the document
3. THE **_MNOfficersTitle** attribute was added for the distinguishing between the County Recorder and Registrar of Titles.
4. THE **_MN_REJECTION_REASONS** element structure was added for identifying the reasons the document was rejected
5. THE **_MN_VIEW** element was added for an image of the receipt of fees
6. THE **_MN_ELECTRONIC_SIGNATURE** element was added with the **_MN_ElectronicSignatureIDRef** attribute to accommodate the reference to what part of the document the County Recorder or Deputy was signing

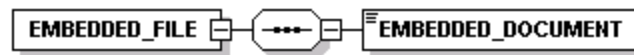
Version 1.1 RECORDING_ENDORSEMENT



Generated with XMLSpy Schema Editor www.xmlspy.com

14. EMBEDDED_FILE

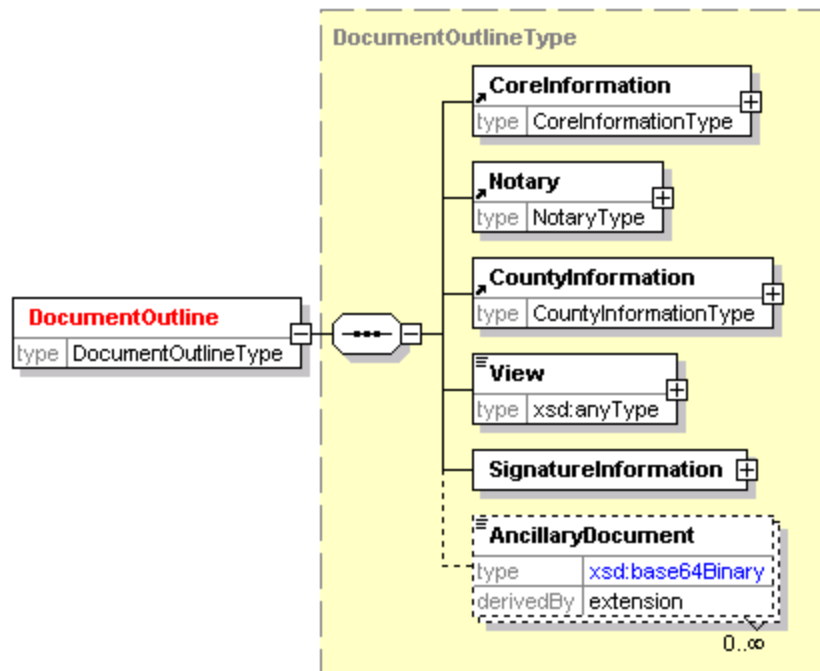
The **EMBEDDED_FILE** element structure contains the information about a file that was scanned in and the image was attached.



Generated with XMLSpy Schema Editor www.xmlspy.com

The **EMBEDDED_FILE** element structure mapped to the Version 1.0 **AncillaryDocument** element under the **DocumentOutline** element structure.

Version 1.0 AncillaryDocument



Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

No Minnesota Extensions needed to be added.

Certificate of Release Document

Element Descriptions:

1. DOCUMENT_RECORDATION

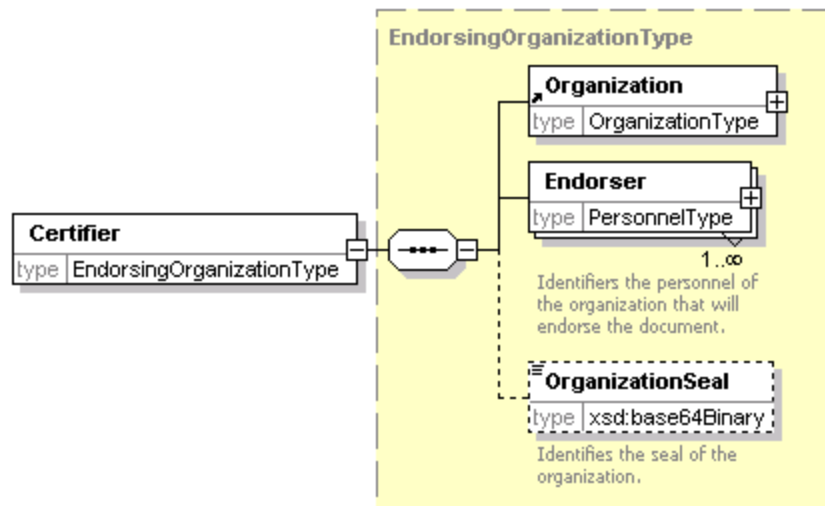
Same as Satisfaction Document.

2. PRIA_DOCUMENT

Same as Satisfaction Document except for the following:

Version 1.0 identified the Title Company or Agent that was processing the document. This was termed as the Certifier.

Version 1.0 Certifier



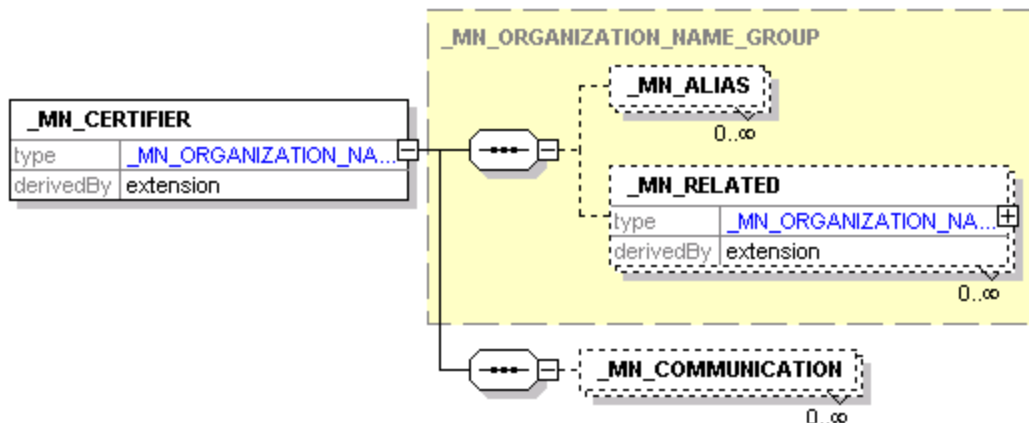
Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **PRIA_DOCUMENT** element to accommodate the following Minnesota requirements:

1. THE **_MN_CERTIFIER** element structure was added to identify the organization or person certifying the document

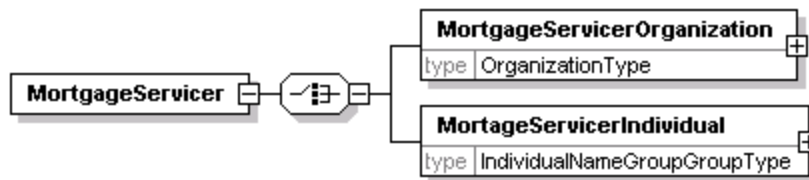
Version 1.1 _MN_CERTIFIER



Generated with XMLSpy Schema Editor www.xmlspy.com

Version 1.0 identified the name of the organization or person that was servicing the document. This was termed as the MortgageServicer.

Version 1.0 MortgageServicer



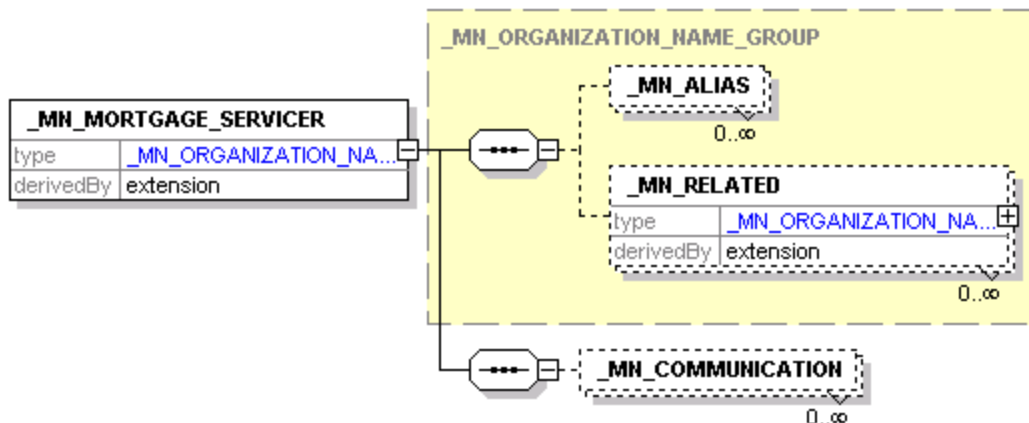
Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **PRIA_DOCUMENT** element to accommodate the following Minnesota requirements:

1. THE **_MN_MORTGAGE_SERVICER** element structure was added to identify the organization or person servicing the document

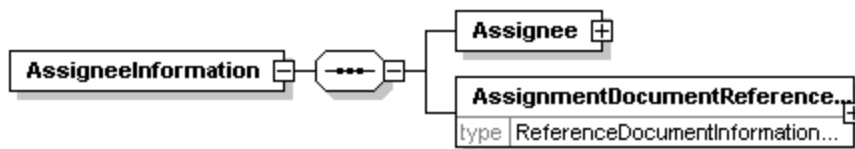
Version 1.1 _MN_MORTGAGE_SERVICER



Generated with XMLSpy Schema Editor www.xmlspy.com

Version 1.0 identified the name of the organization that had been assigned the mortgage along with the recorded information of the assignment of the mortgage. This was termed as the AssigneeInformation.

Version 1.0 AssigneeInformation



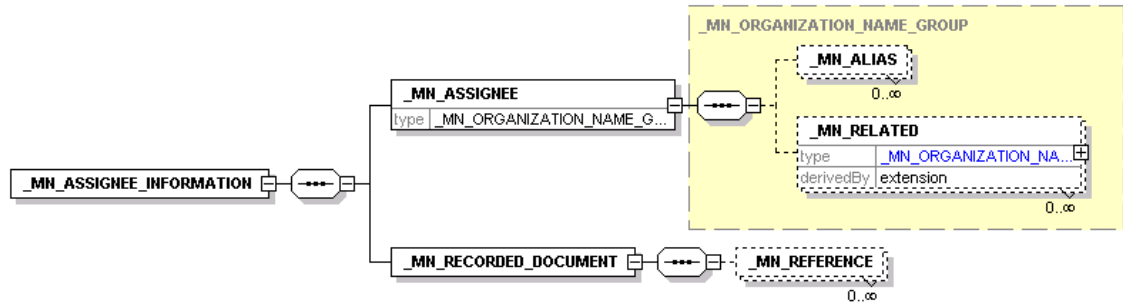
Generated with XMLSpy Schema Editor www.xmlspy.com

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **PRIA_DOCUMENT** element to accommodate the following Minnesota requirements:

1. THE **_MN_ASSIGNEE_INFORMATION** element structure was added to identify the organization or person that was assigned the document as well as the recorded information of the assignment.

Version 1.1 _MN_ASSIGNEE_INFORMATION



Generated with XMLSpy Schema Editor www.xmlspy.com

The Appointment of Agent was added in Version 1.1. This contained the information about the Appointment of Agent document that was recorded at the county giving authority for the Certifier to file a Certificate of Release for an organization.

Extensions:

A Minnesota Extension element structure, labelled **_MN_EXTENSION** had to be added to the **PRIA_DOCUMENT** element to accommodate the following Minnesota requirements:

1. THE **_MN_AGENT_APPOINTMENT_DOCUMENT** element structure was added to identify the recorded information of the appointment of agent.

Version 1.1 _MN_AGENT_APPOINTMENT_DOCUMENT



Generated with XMLSpy Schema Editor www.xmlspy.com

3. GRANTOR

Same as Satisfaction Document except the Version 1.0 element structure was named **OriginalMortgagee** instead of **Mortgagee**.

4. GRANTEE

Same as Satisfaction Document except the Version 1.0 element structure was named **OriginalMortgagor** instead of **Mortgagor**.

5. PROPERTY

Same as Satisfaction Document.

6. PARTIES

Same as Satisfaction Document.

7. EXECUTION

Same as Satisfaction Document.

8. MORTGAGE_CONSIDERATION

Same as Satisfaction Document.

9. CONSIDERATION

Same as Satisfaction Document.

10. RECORDED_DOCUMENT

Same as Satisfaction Document.

11. PRIA_SIGNATURE

Same as Satisfaction Document.

12. NOTARY

Same as Satisfaction Document.

13. RECORDING_ENDORSEMENT

Same as Satisfaction Document.

14. EMBEDDED_FILE

Same as Satisfaction Document.

Version 2.0

Background:

The Electronic Real Estate Recording Task Force (ERERTF) approved Version 1.1 consisting of two schemas for the State of Minnesota XML Standards, representing the Satisfaction and Certificate of Release documents. These schemas were designed as an extension to the Property Records Industry Association (PRIA) National Standards which are based on more of an attribute rather than element based schema. Meetings were held to discuss the information required by Minnesota State law and Minnesota county recorders for the Deed and Assignment of Mortgage documents which brought about discussions concerning the current attribute based schema versus a more element based schema. Following this discussion, the ERERTF was given a presentation on the difference between an attribute and element and the pros and cons of each in the schema world. (Please refer to AttributeVSElement.ppt)

An element based schema is more flexible and easier to maintain for future enhancements by allowing ease of changing relationships from a one to one to a one to many relationship and also requiring less structural changes due to elements being more versatile and independent instead of relying on a grouping relationships as attributes are. Elements created to represent smaller entities with the same business domain also enable business rules to be embedded in the schema instead of being an implementation or user training issue. Creating a separate schema for each document, but reusing element structures when appropriate, allows more document specific business rules to be dictated in the schema thus representing the business requirements of each document as close as possible.

As a result of these discussions, the ERERTF requested that the State of MN XML Standards for the Satisfaction and Certificate of Release be redesigned to represent more of an element based rather than an attribute based schema. Following these changes, a schema will also be designed for each of the Deed (Warranty, Limited Warranty and Quit Claim), Assignment of Mortgage and Certificate of Real Estate Value (CRV) documents which will also follow the more element based schema approach.

At this point, the Affidavit of Purchaser was no longer required by law.

Requirements

- State of Minnesota XML Standards will be designed for the following documents:
 - Satisfaction
 - Certificate of Release
 - Deed (Warranty, Limited Warranty, Quit Claim)
 - Assignment of Mortgage
 - CRV
- Identify information that is required by Minnesota state law for each document

- Identify information that is required by Minnesota county recorders for each document
- Create an element based schema for each document

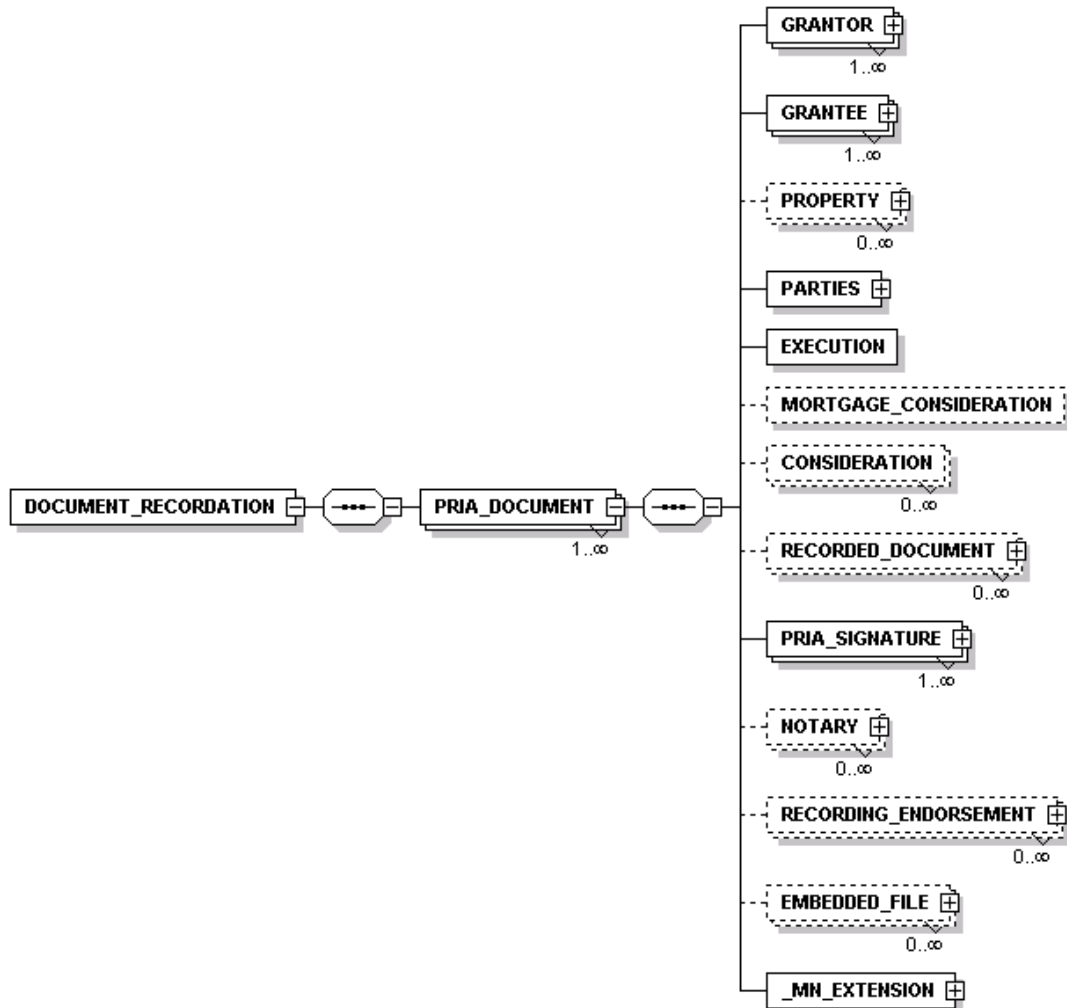
The following design standards were implemented:

1. Mixed case was used to decipher the words within one name
2. No underscores were used in the naming conventions
3. All document schema files started with an upper case value
4. All datatype files started with “dt”
5. All sub-schema files used to create the document schemas started with a lower case value
6. Typing of element structures was used to allow for reuse of these structures and ease of maintenance
7. Grouping of attributes was used to allow for reuse of these groupings and ease of maintenance
8. W3C XML Signature standards were followed for the representations of the persons signing the document (endorsers, notaries, county personnel, buyers and sellers of the property)
9. All elements started with an upper case letter
10. All attributes started with a lower case letter

The **SatisfactionVersionControlChanges.xls** and **CertificateOfReleaseVersionControlChanges.xls** spreadsheets give a detailed explanation of the mapping between the Version 1.1 and Version 2.0 elements and attributes.

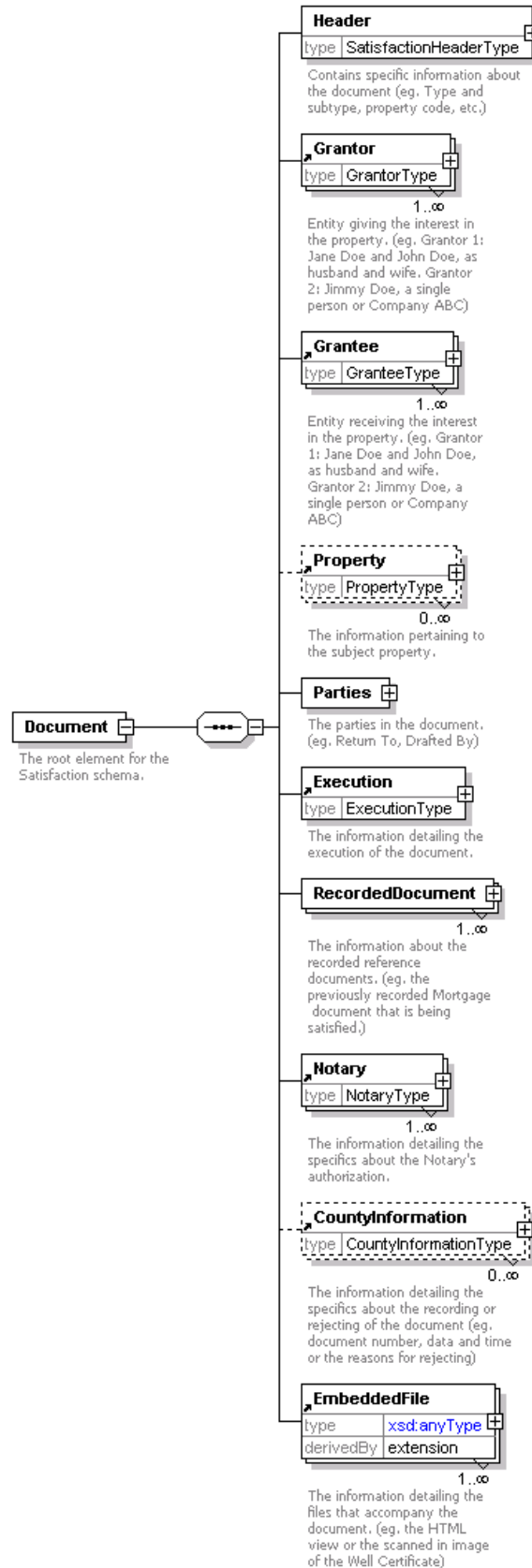
Satisfaction

The following diagram identifies **Version 1.1** of the **Minnesota Satisfaction Schema** :



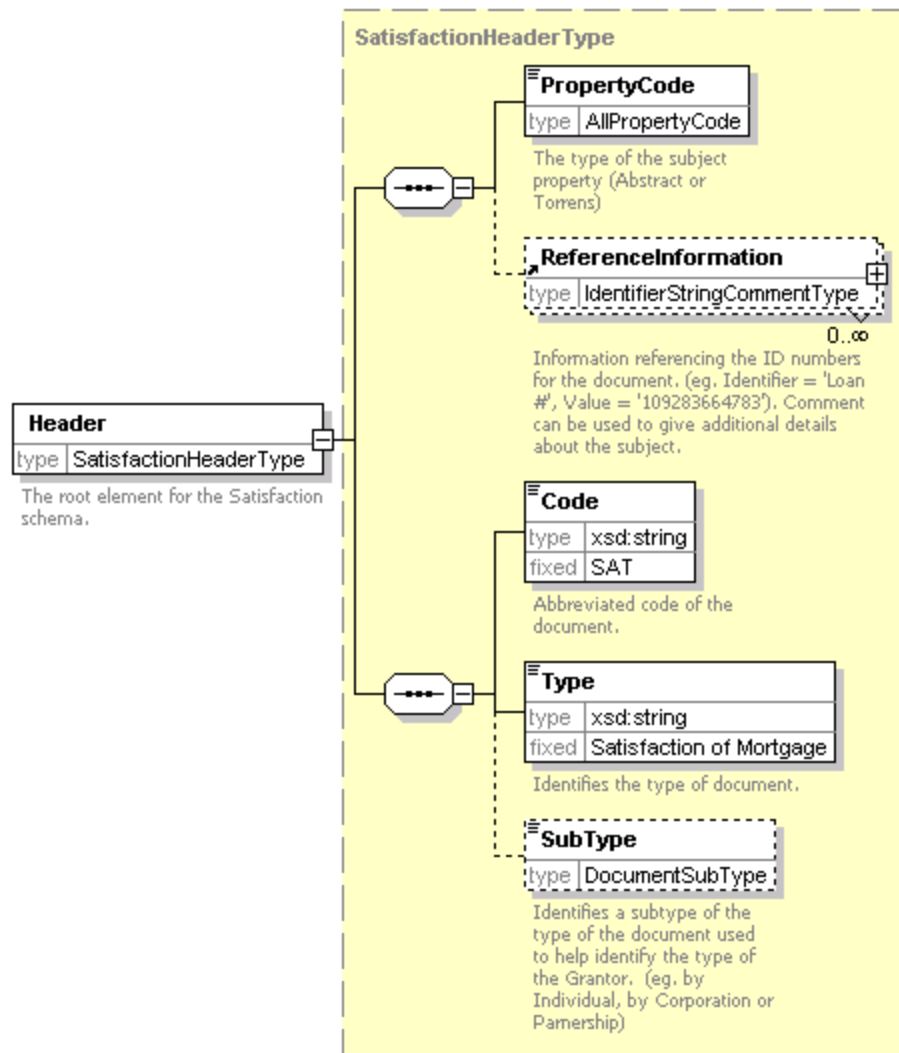
Generated with XMLSpy Schema Editor www.xmlspy.com

The following diagram identifies **Version 2.0** of the **Minnesota Satisfaction Schema** :



1. Header

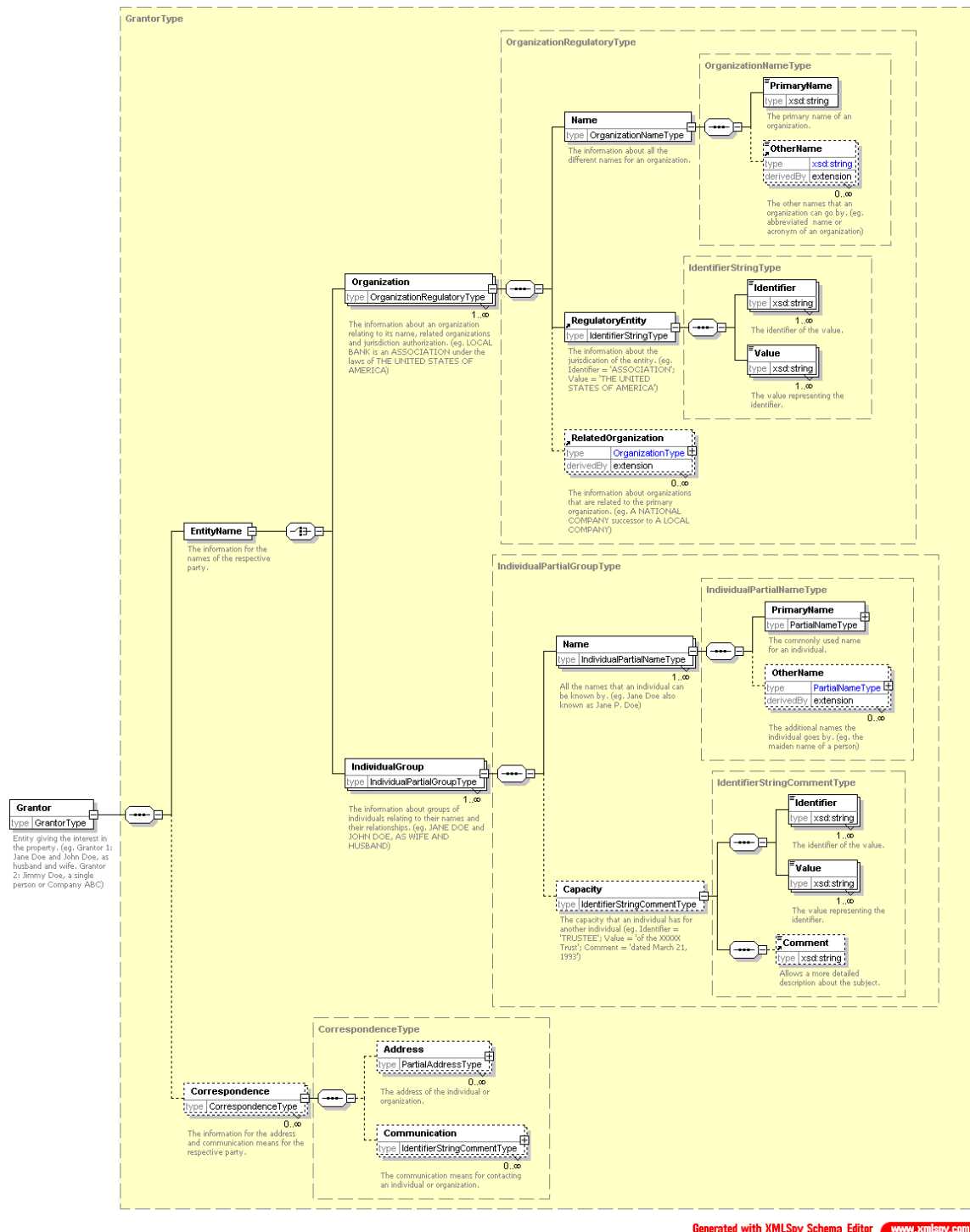
The Version 2.0 **Header** element structure contains the information from the elements and attributes of Version 1.1 **PRIA_DOCUMENT** element and its **_MN_EXTENSION** element structure. This information was identified using elements.



Generated with XMLSpy Schema Editor www.xmlspy.com

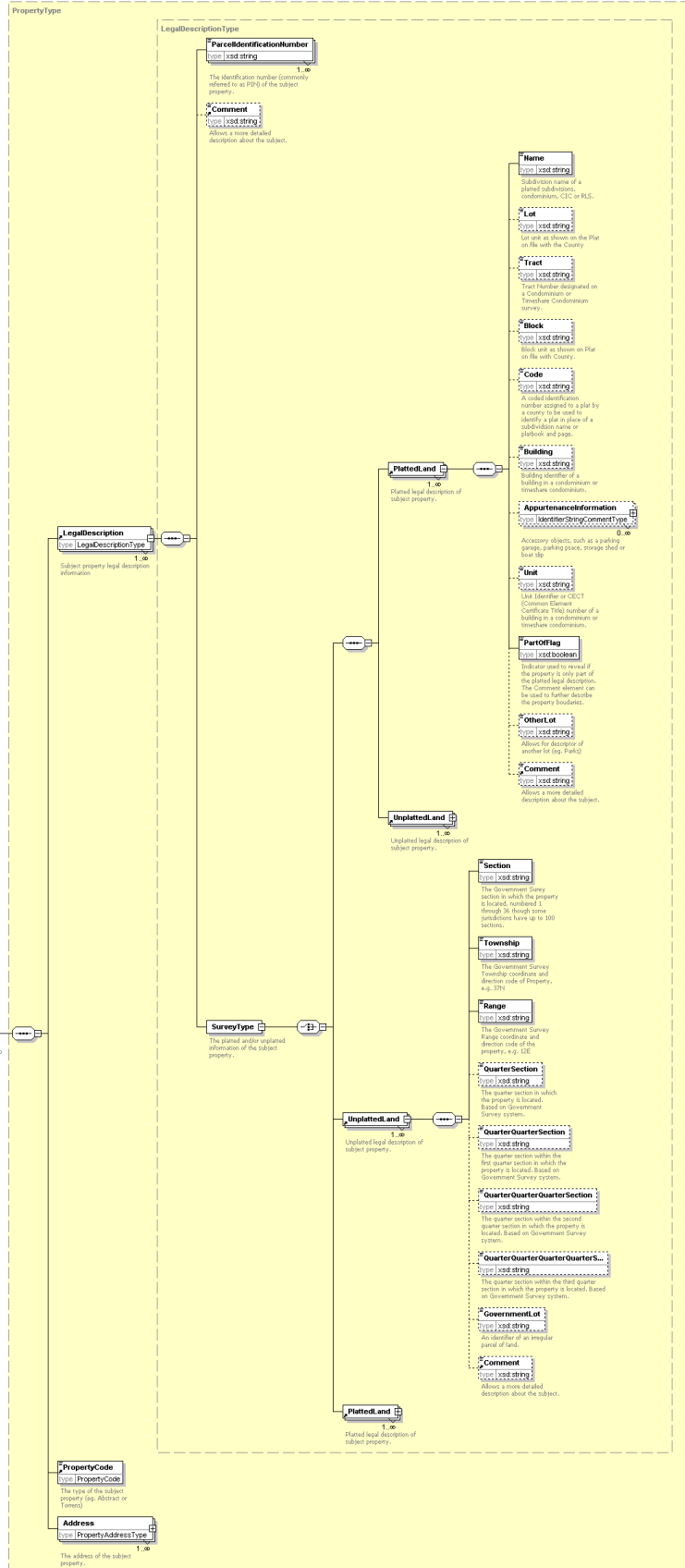
2. Grantor/Grantee

The Version 2.0 **Grantor** and **Grantee** element structures contain the information from the elements and attributes of Version 1.1 **GRANTOR** and **GRANTEE** element and their **_MN_EXTENSION** element structure, respectively. Communication information to hold the address and contact numbers was also added to each element.



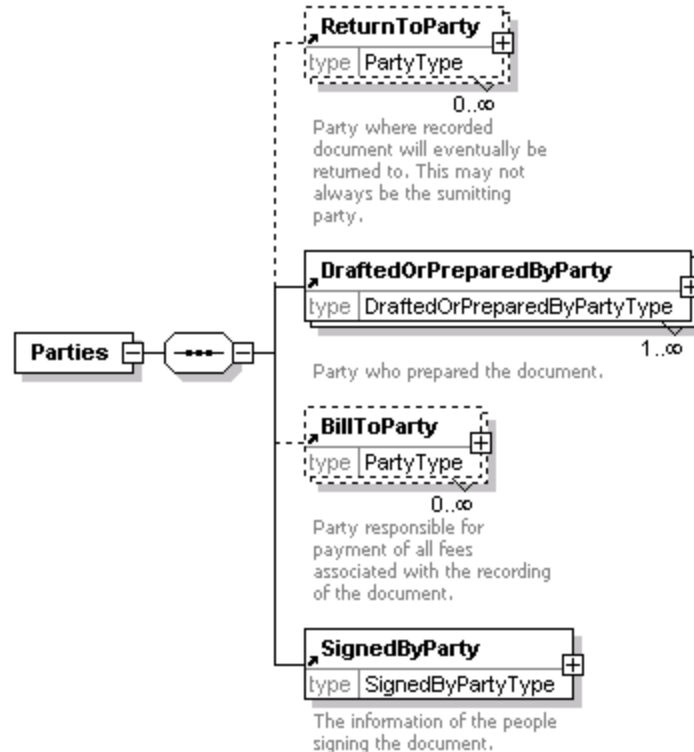
3. Property

The Version 2.0 **Property** element structure was mapped from the elements and attributes of Version 1.1 **PROPERTY** element and its **_MN_EXTENSION** element structure.



4. Parties

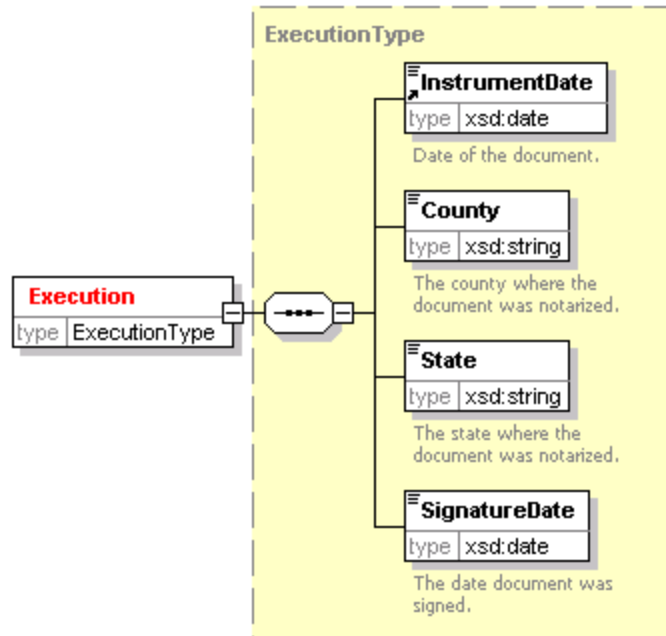
The Version 2.0 **Parties** element structure was mapped from the elements and attributes of Version 1.1 **PARTIES** element and its **_MN_EXTENSION** element structure. The Version 2.0 **SignedByParty** element structure was added to accommodate the persons that would be signing the document and it was mapped from the elements and attributes of Version 1.1 **PRIA_SIGNATURE** element and its **_MN_EXTENSION** element structure.



Generated with XMLSpy Schema Editor www.xmlspy.com

5. Execution

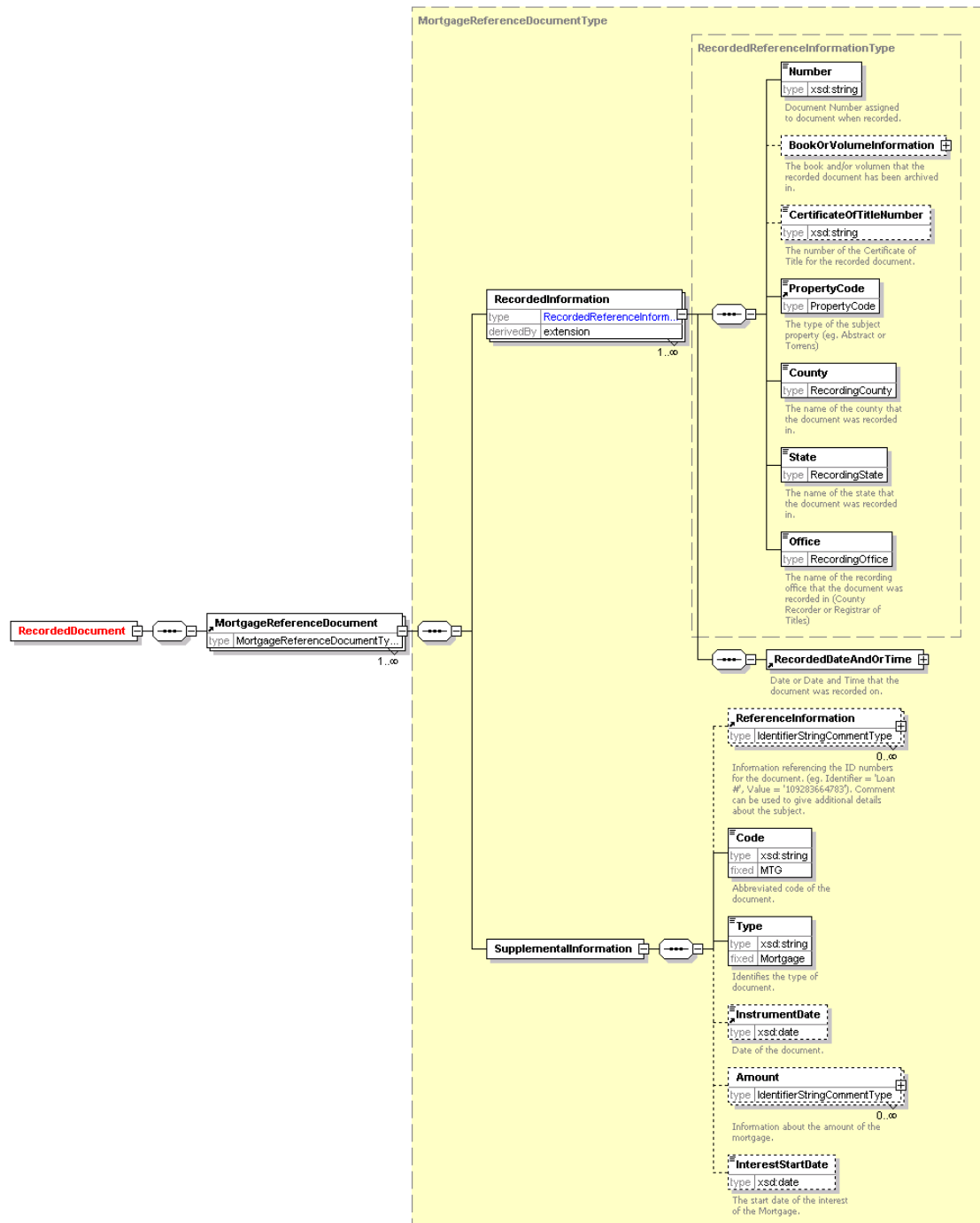
The Version 2.0 **Execution** element structure was mapped from the Version 1.1 **EXECUTION** element and attributes. A **SignatureDate** was added for identifying the date that the document was signed on. This element was mapped from the **_SignatureDate** attribute in the **PRIA_SIGNATURE** element.



Generated with XMLSpy Schema Editor www.xmlspy.com

6. RecordedDocument

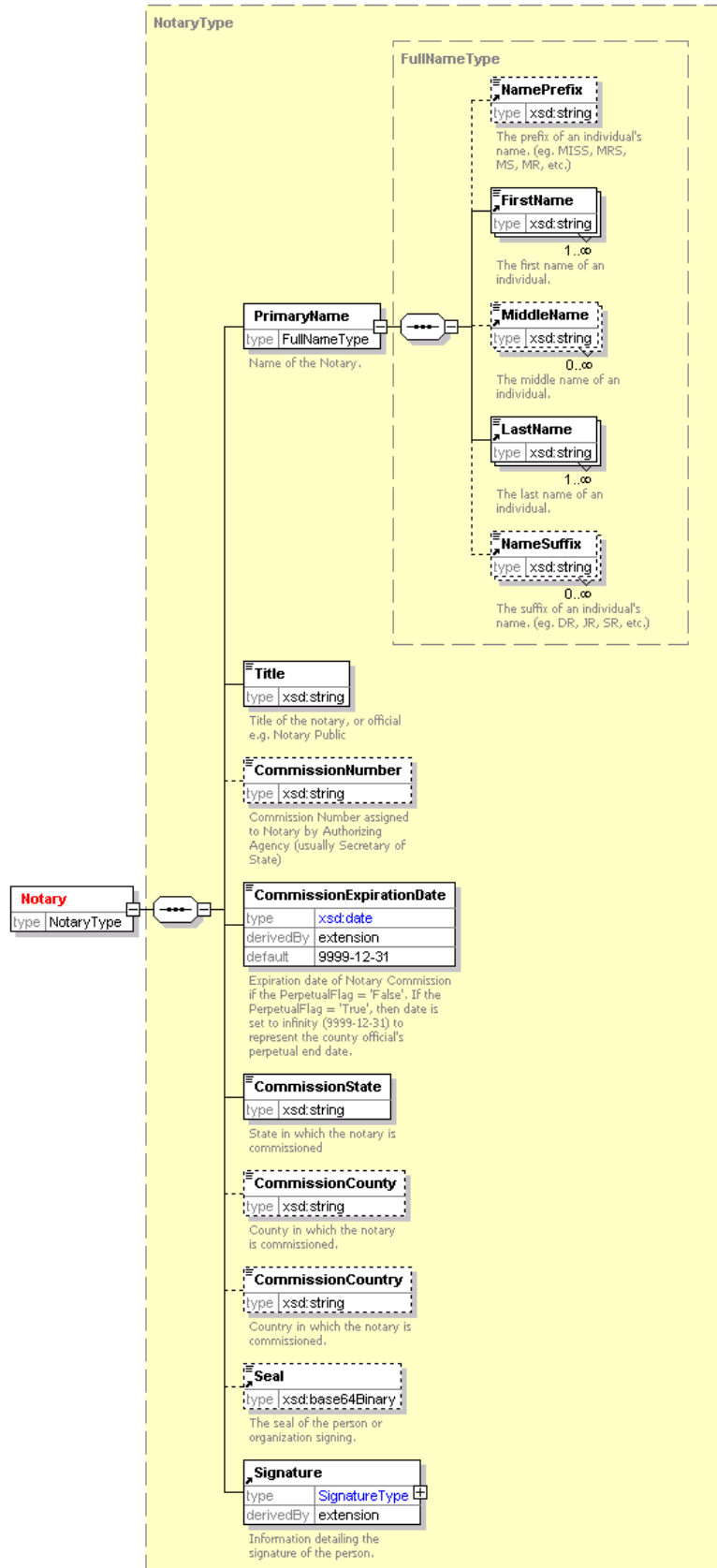
The Version 2.0 **RecordedDocument** element structure was mapped from the elements and attributes of Version 1.1 **RECORDED_DOCUMENT** element and its **_MN_EXTENSION** element structure.



Generated with XMLSpy Schema Editor www.xmlspy.com

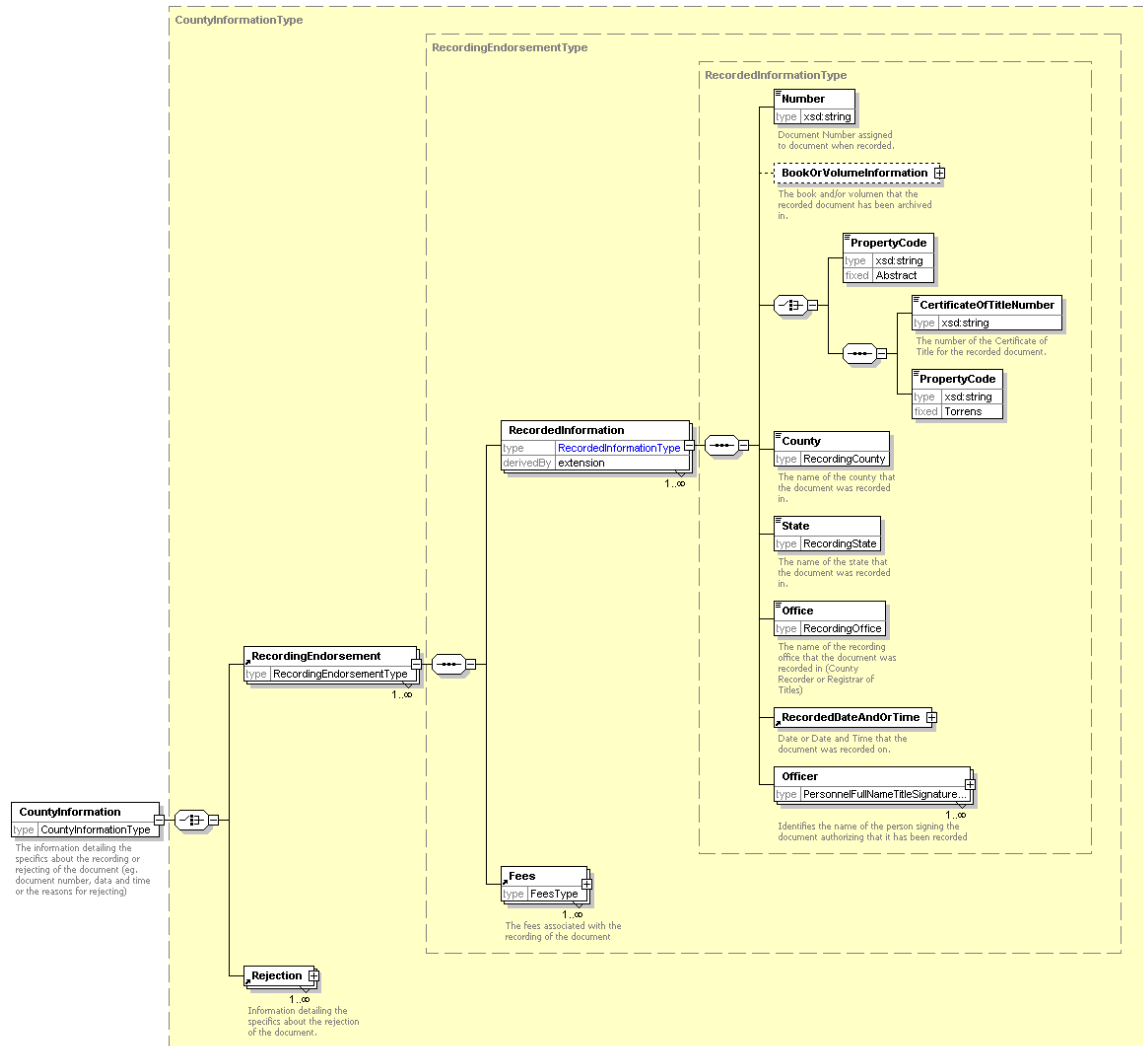
7. Notary

The Version 2.0 **Notary** element was mapped from the elements and attributes of Version 1.1 **NOTARY** element and its **_MN_EXTENSION** element structure.



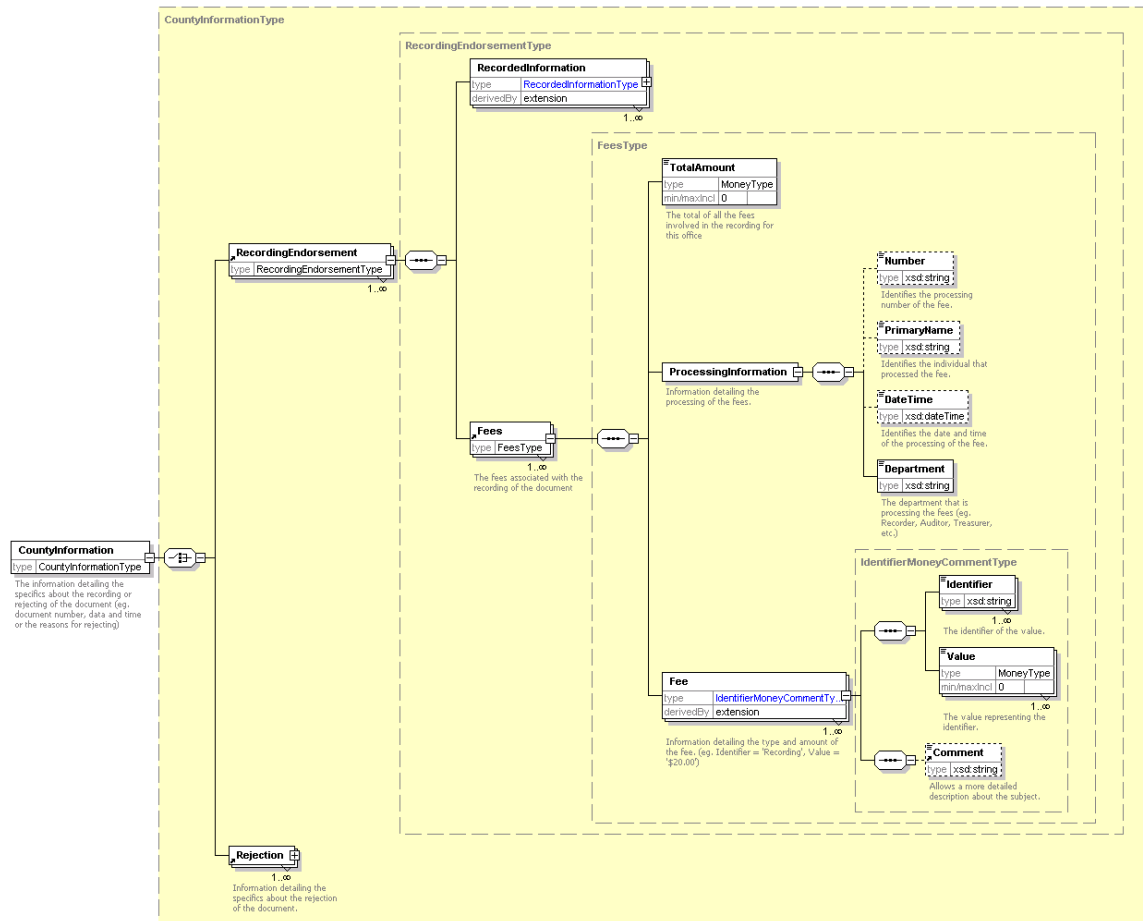
8. CountyInformation

The Version 2.0 **CountyInformation** element was mapped from the elements and attributes of Version 1.1 **RECORDING_ENDORSEMENT** element and its **_MN_EXTENSION** element structure.



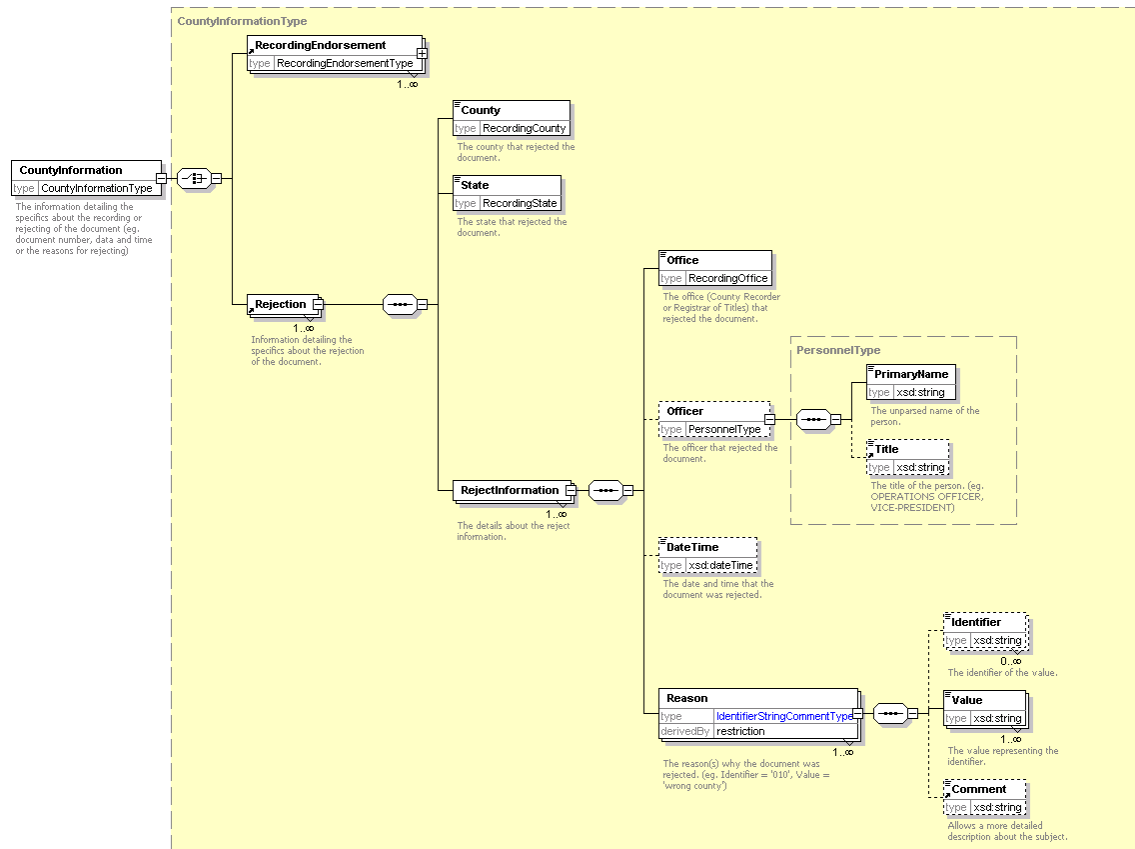
Generated with XMLSpy Schema Editor www.xmlspy.com

The Version 2.0 **Fees** element structure was mapped from the attributes of the **_MN_EXTENSION** element structure of Version 1.1 **PRIA_DOCUMENT**.



Generated with XMLSpy Schema Editor www.xmlspy.com

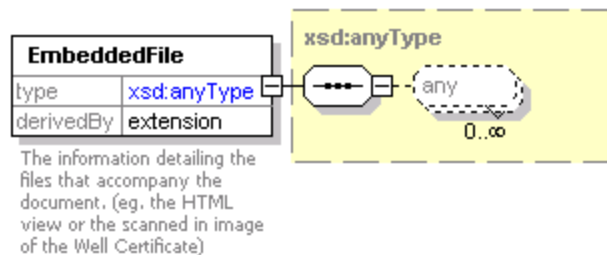
The Version 2.0 **Rejection** element was mapped from elements and attributes of the **_MN_EXTENSION** element structure of Version 1.1 **RECORDING_ENDORSEMENT** element.



Generated with XMLSpy Schema Editor www.xmlspy.com

9. EmbeddedFile

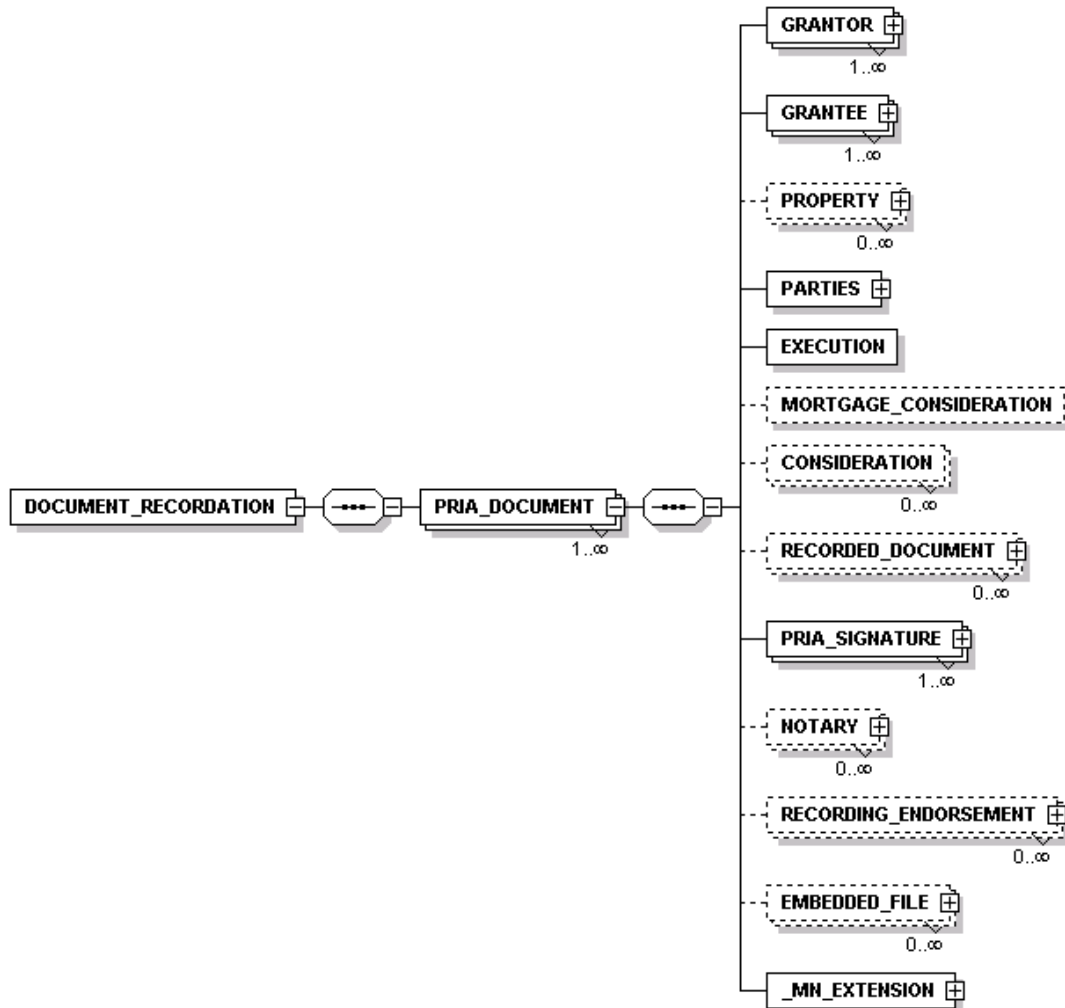
The Version 2.0 **EmbeddedFile** was mapped of Version 1.1 **EMBEDDED_FILE** element and attributes. The Version 1.1 **_MN_VIEW** element extension of Version 1.1 **RECORDED_DOCUMENT** element structure was mapped to the Version 2.0 **EmbeddedFile** element also.



Generated with XMLSpy Schema Editor www.xmlspy.com

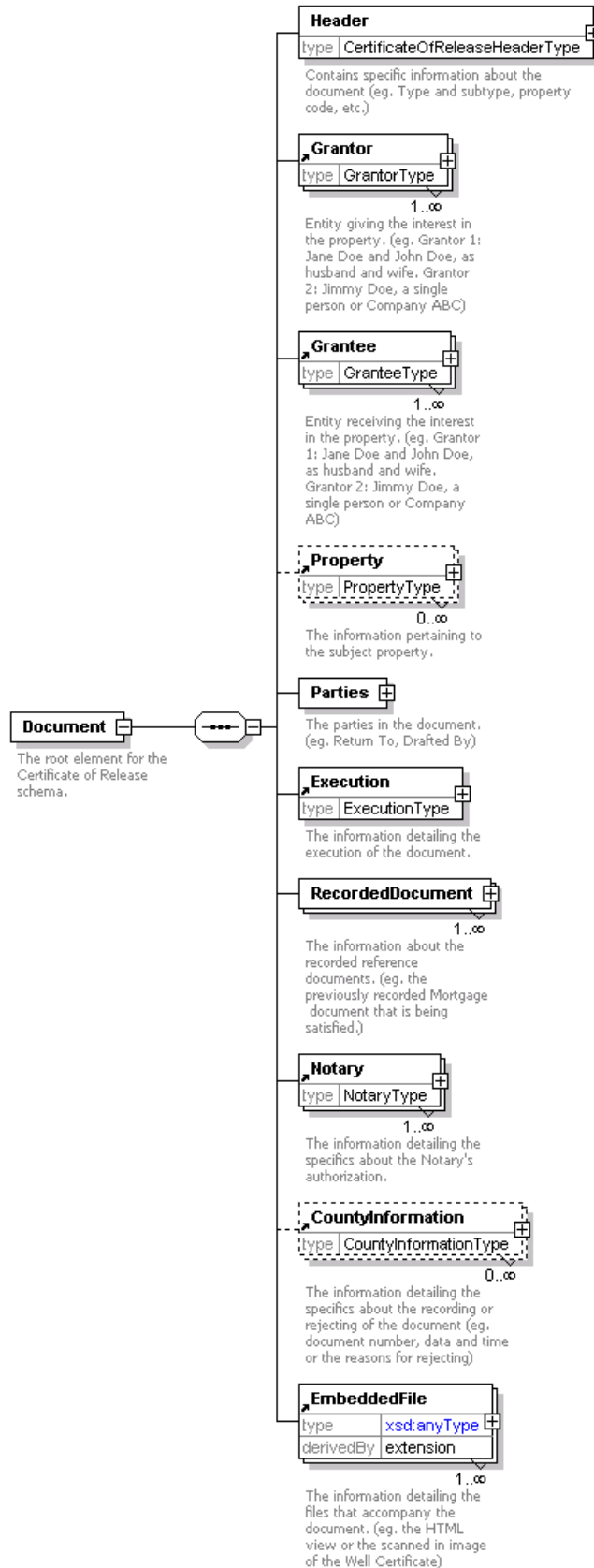
Certificate of Release

The following diagram identifies **Version 1.1** of the **Minnesota Certificate of Release Schema**:



Generated with XMLSpy Schema Editor www.xmlspy.com

The following diagram identifies **Version 2.0** of the **Minnesota Certificate of Release Schema**:



1. Header

Same as Satisfaction except the **SubType** element does not exist for the Certificate of Release.

2. Grantor/Grantee

Same as Satisfaction except that the Grantor is the Title Company or its Agent which was the Version 1.1 **_MN_CERTIFIER** element structure.

3. Property

Same as Satisfaction.

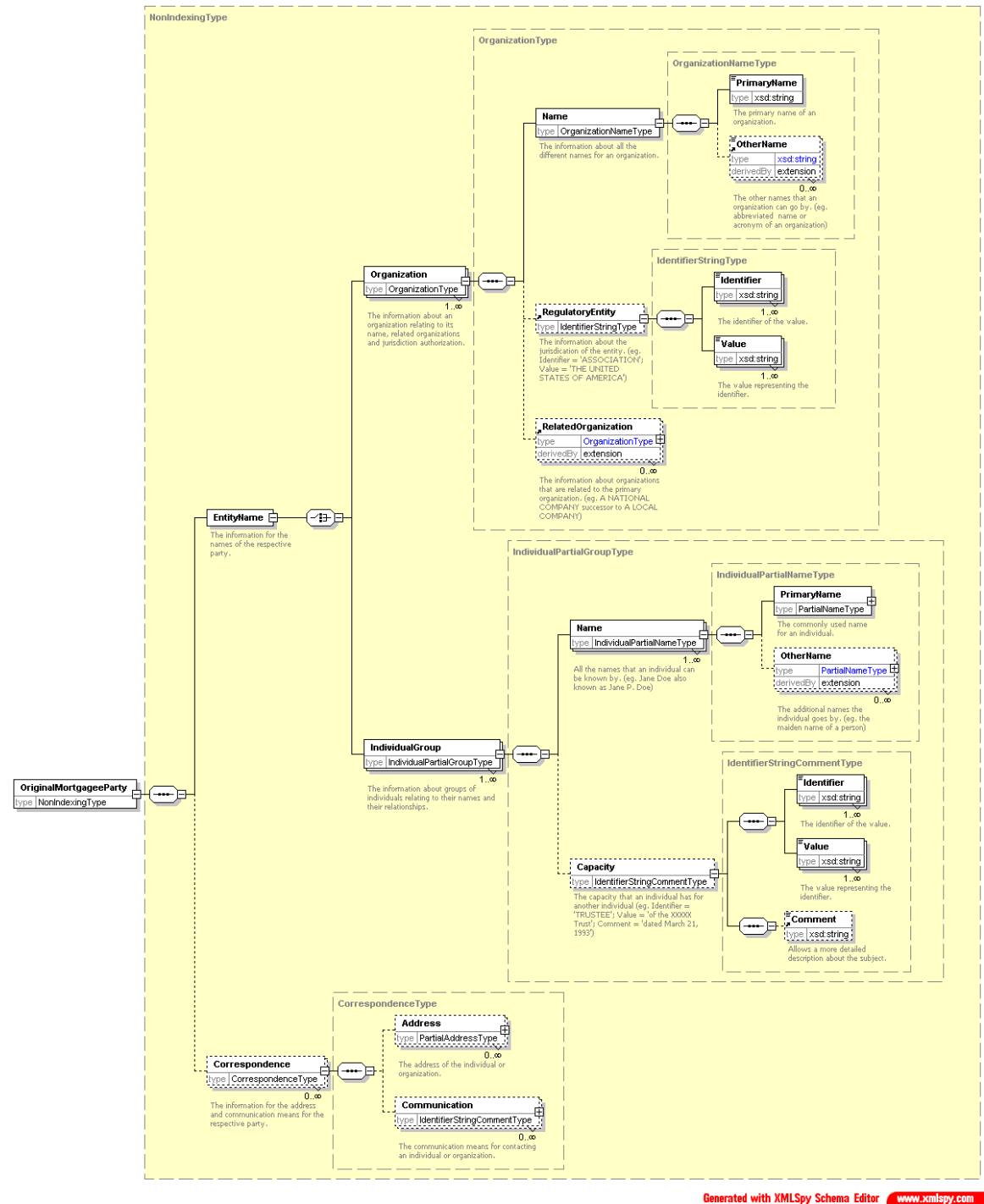
4. Parties

Same as Satisfaction except for the following changes:

The Version 1.1 **_MN_CERTIFIER** was dropped since the Version 2.0 **Grantor** element was used to define this.

The Version 2.0 **OriginalMortgageeParty** element structure was added. This defined the persons or corporations that was the original mortgagee when the mortgage was recorded.

Version 2.0 OriginalMortgageeParty

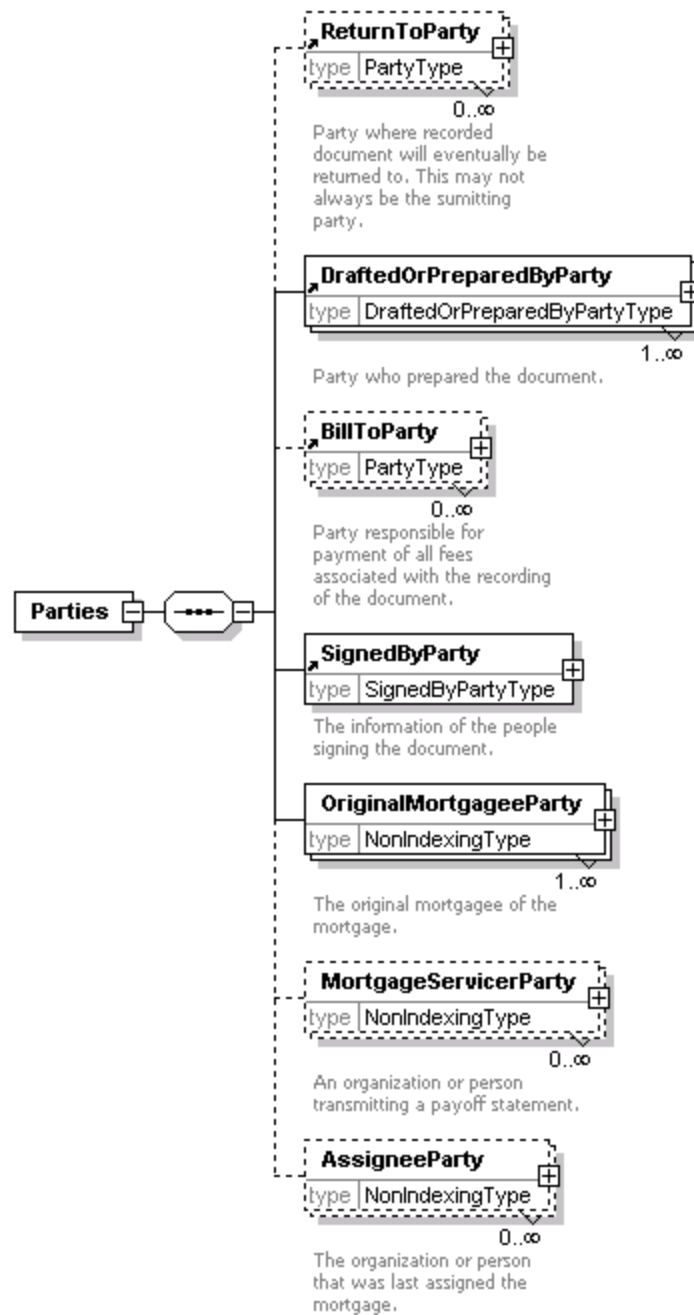


Generated with XMLSpy Schema Editor www.xmlspy.com

The Version 2.0 **MortgageServicerParty** element structure was mapped from elements and attributes of Version 1.1 **_MN_MORTGAGE_SERVICER** element of Version 1.1 **_MN_EXTENSION** element structure of Version 1.1 **PRIA_SIGNATURE** element.

The Version 2.0 **AssigneeParty** element structure was mapped from the elements and attributes of Version 1.1 **_MN_ASSIGNEE** element of Version 1.1 **_MN_ASSIGNEE_INFORMATION** element of Version 1.1 **_MN_EXTENSION** element structure of Version 1.1 **PRIA_SIGNATURE** element.

Version 2.0 Parties



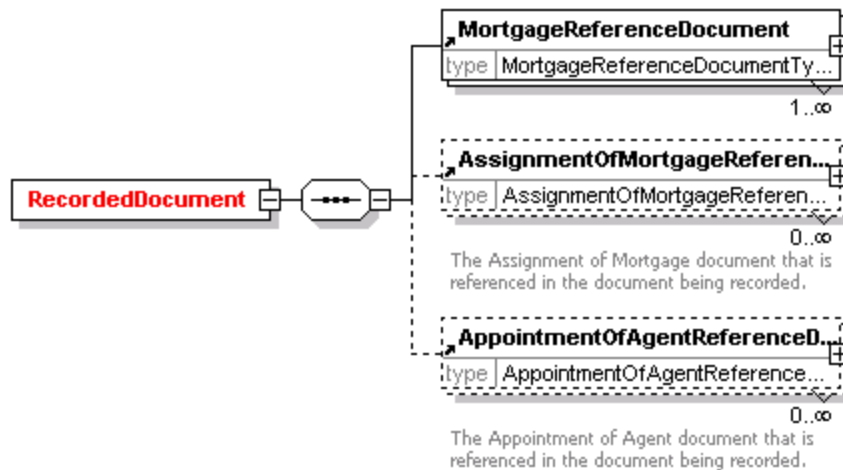
5. Execution

Same as Satisfaction.

6. RecordedDocument

Same as Satisfaction for the **MortgageReferenceDocument** element structure.

Two additional reference document structures were added.



Generated with XMLSpy Schema Editor www.xmlspy.com

The Version 2.0 **AssignmentOfMortgageReferenceDocument** element structure was mapped from the the elements and attributes of Version 1.1
_MN_RECORDED_DOCUMENT element of Version 1.1
_MN_ASSIGNEE_INFORMATION element of Version 1.1
_MN_EXTENSION element structure of Version 1.1 **PRIA_SIGNATURE** element.

The Version 2.0 **AppointmentOfAgentReferenceDocument** element structure was mapped from the the elements and attributes of Version 1.1
_MN_AGENT_APPOINTMENT_DOCUMENT element structure of Version 1.1
_MN_EXTENSION element structure of Version 1.1 **PRIA_SIGNATURE** element.

7. Notary

Same as Satisfaction.

8. CountyInformation

Same as Satisfaction.

9. EmbeddedFile

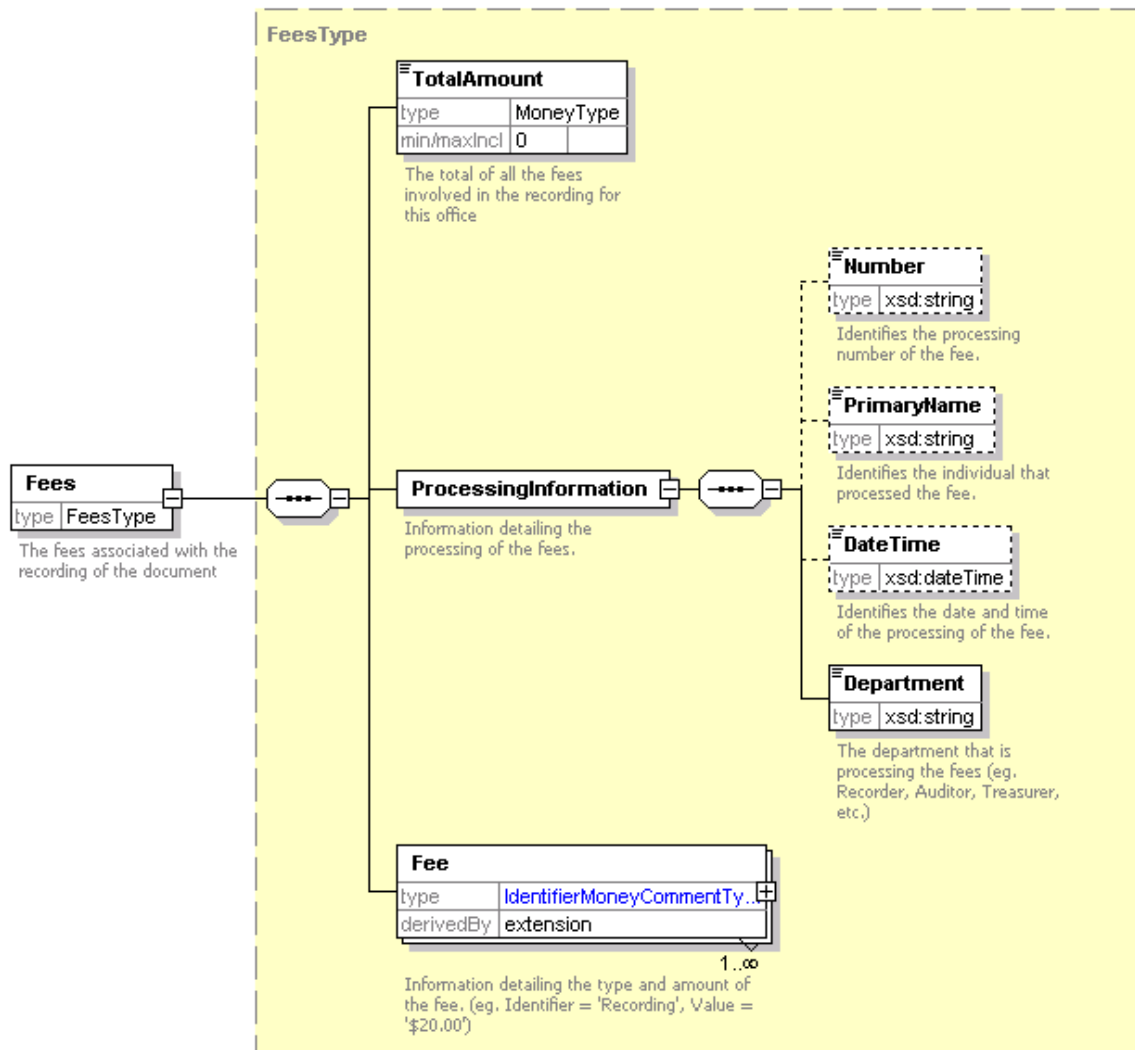
Same as Satisfaction.

Version 3.0

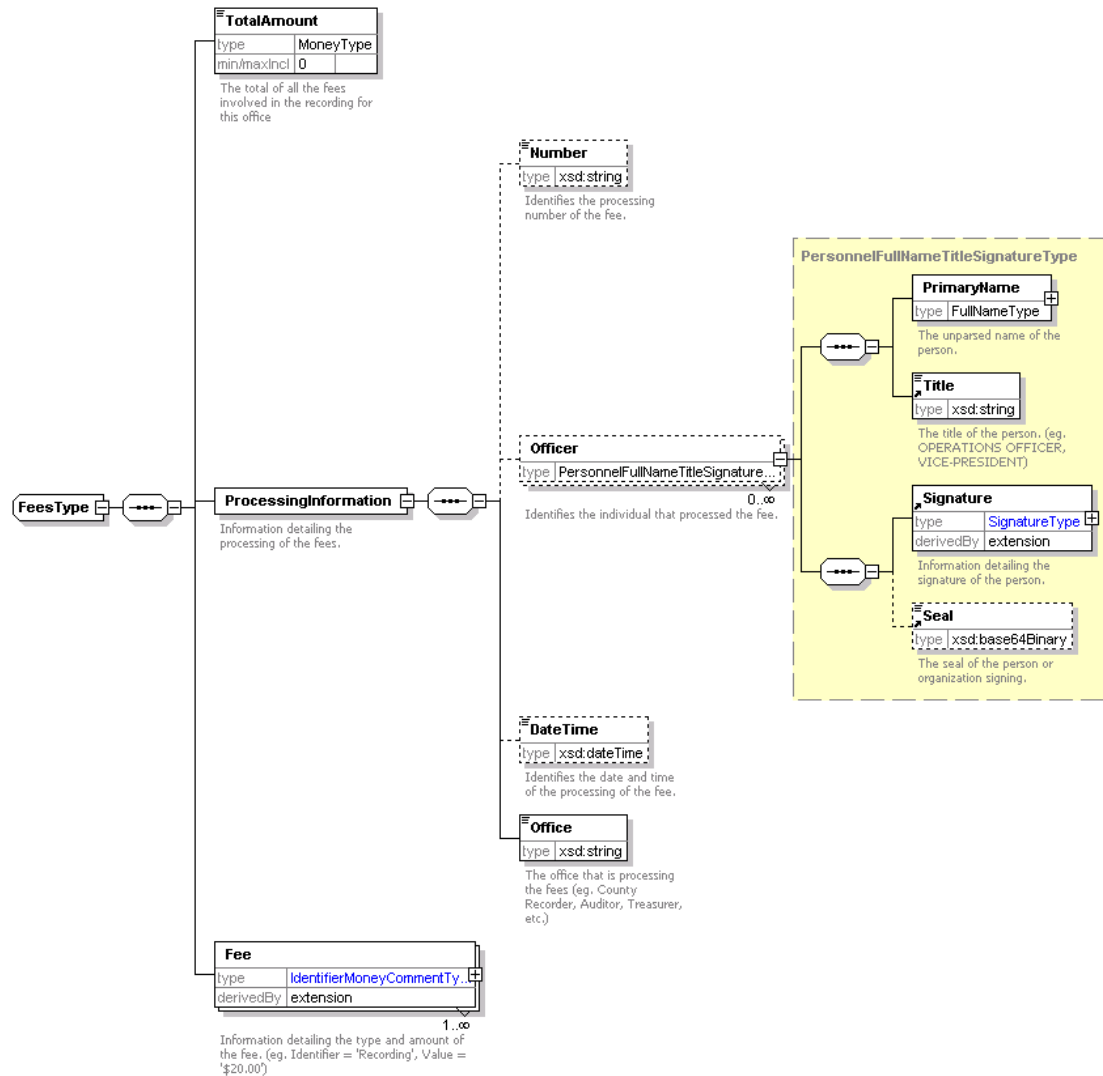
Proposed changes to Satisfaction and Certificate of Release Version 1.0 Schemas:

1. Fees Schema change:

a. Current Fees Schema:



b. Proposed Fees Schema



Generated with XMLSpy Schema Editor www.xmlspy.com

Changes:

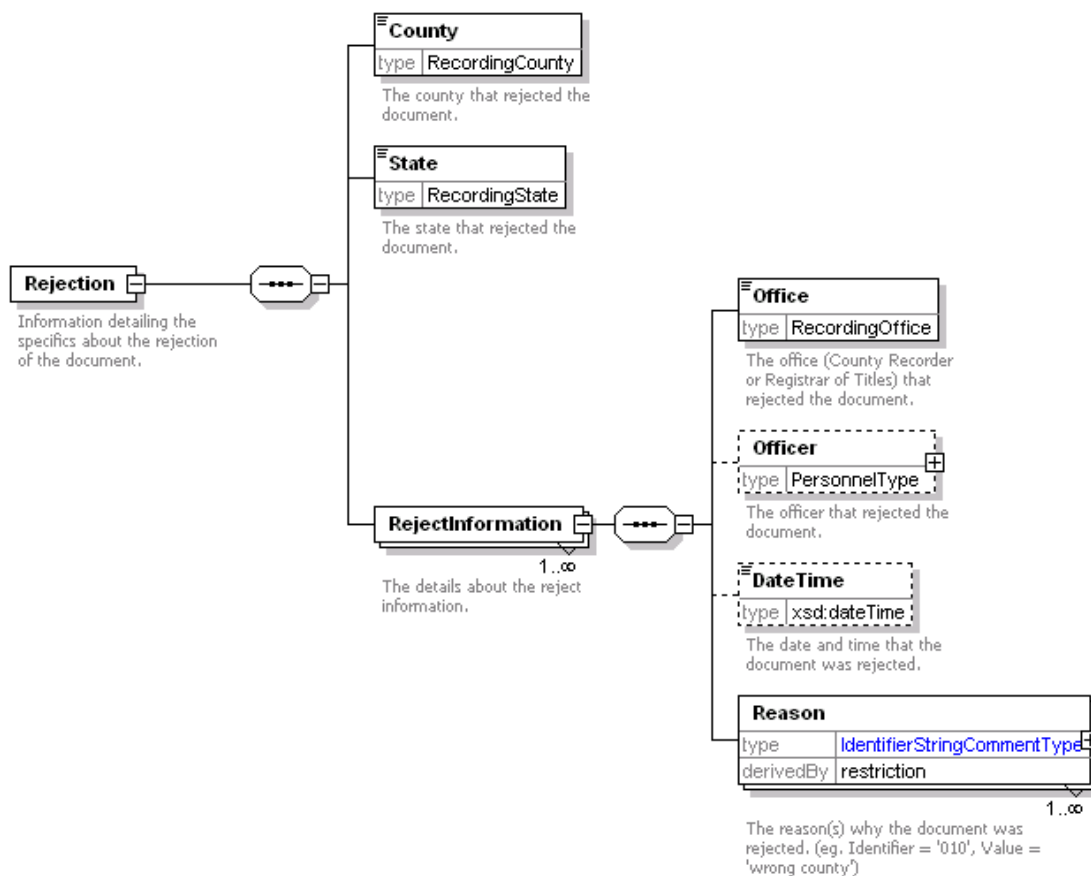
1. Changed "Department" element name to "Office"
 - a. This makes it consistent with the RejectInformation Office element and RecordingInformation Office element.
2. Replaced "Primary Name" element in the ProcessingInformation element with "Officer" element and allowed for multiple occurrences
 - a. This allows for the auditor and treasure to attach their signature. In the current version, only a name is allowed, no title or signature. The auditor and treasurer would use this element when adding their information for the document.

- b. Changing it to multiple allows for multiple signers within one office (for example: the auditor and deputy signs for the auditor's office)

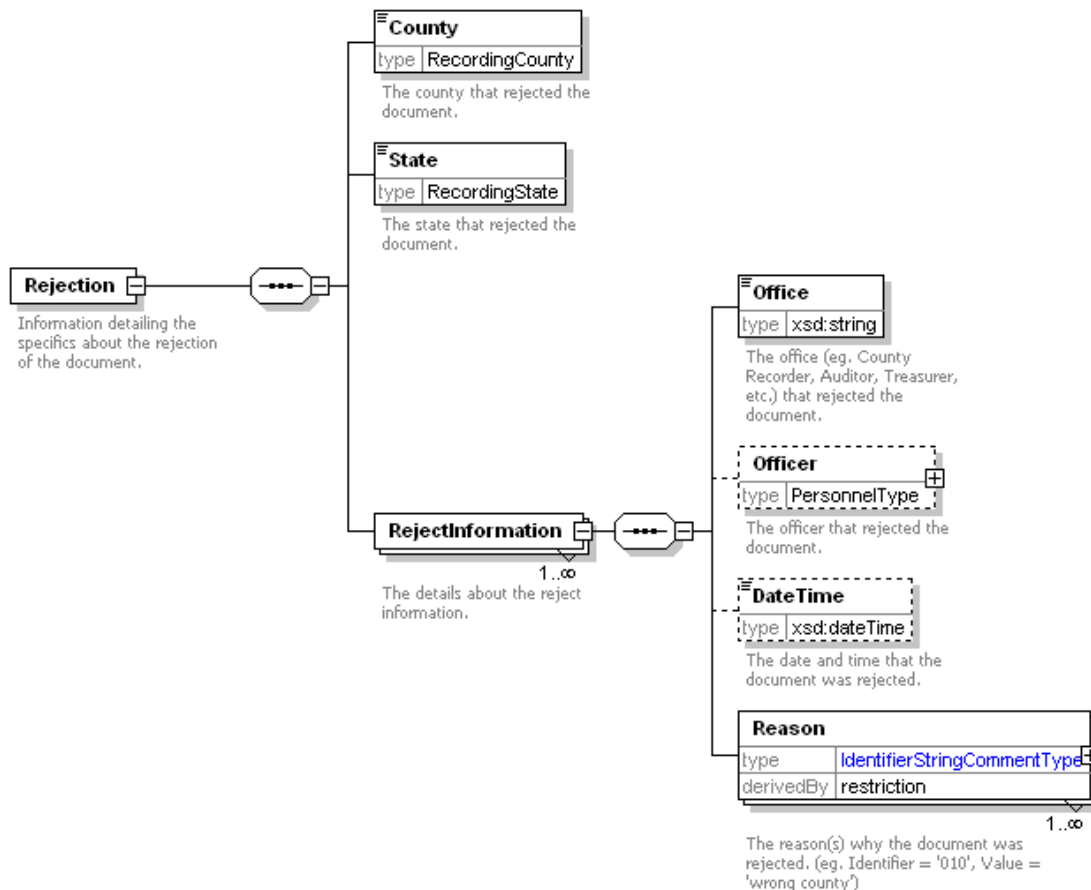
2. RejectInformation schema change

1. Change the Officer datatype from RecordingCounty to xsd:string
 - a. RecordingCounty only allowed "County Recorder" or "Registrar of Titles" and this allows for any office. (for example: "Treasurer" and "Auditor")

Current:



Proposed:



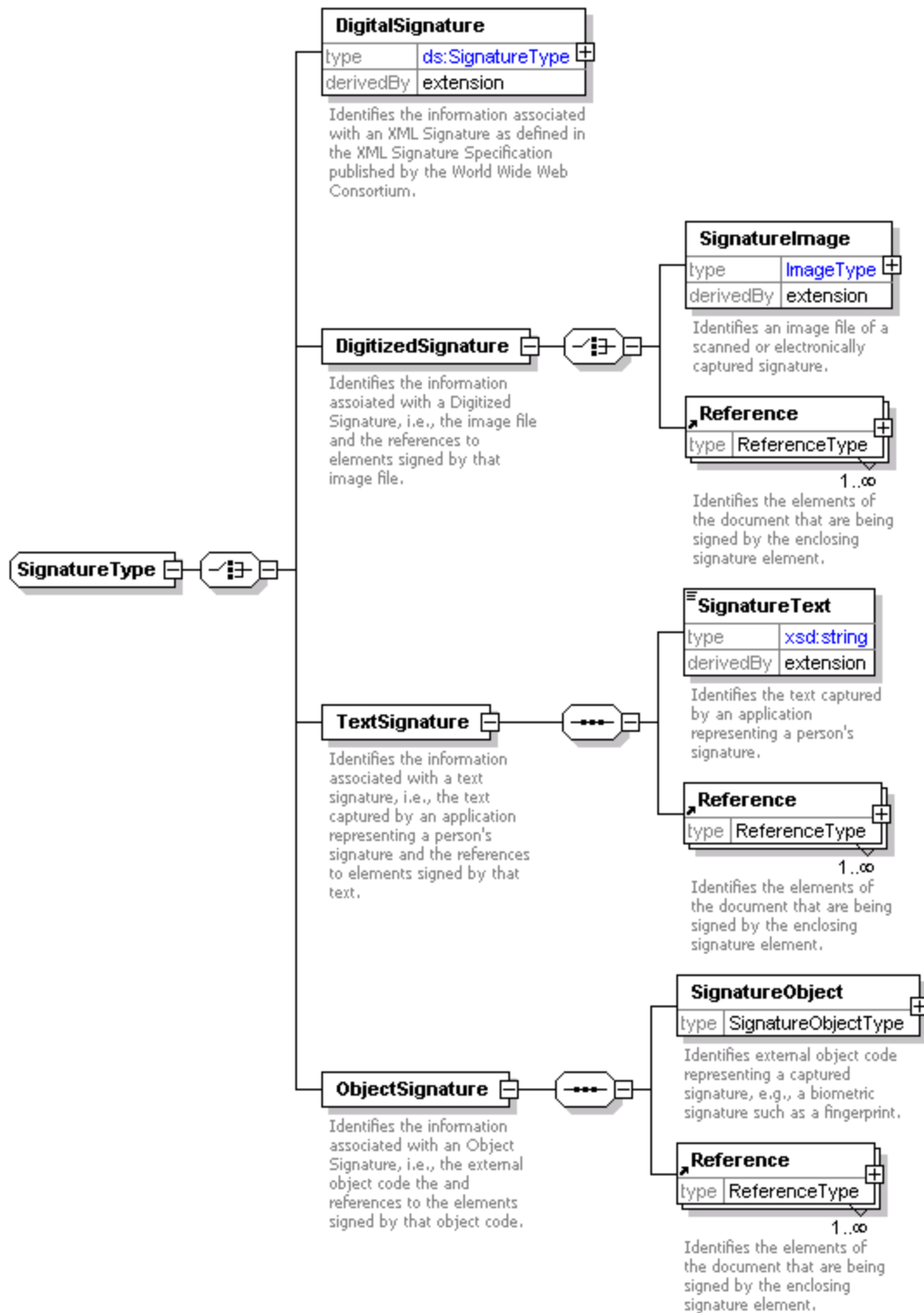
Generated with XMLSpy Schema Editor www.xmlspy.com

The above changes only affect the county code, not the submitter code. These changes were made to support the Deed Schema, but should be the same for all schemas. If the change is not made for the Satisfaction and Certificate of Release Schemas, then the county would have to support two pieces of code instead of one.

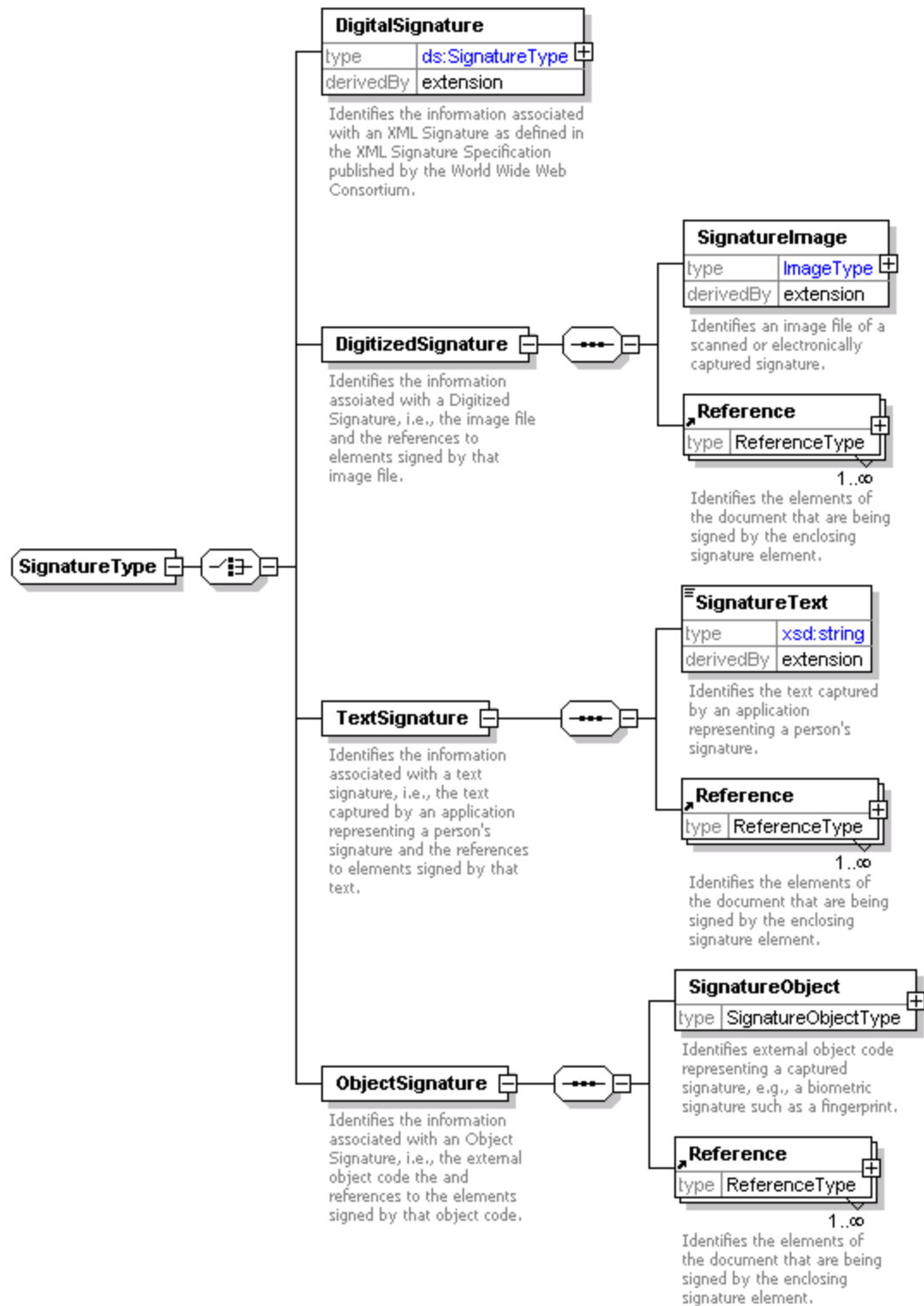
3. Signature Schema change

1. Changed the model on the DigitizedSignature from “Choice” to “Sequence” to allow for the SignatureImage **and** Reference elements to be populated instead of one or the other
 - a. This makes it consistent for the rest of the signature types (Text and Object)

Current:



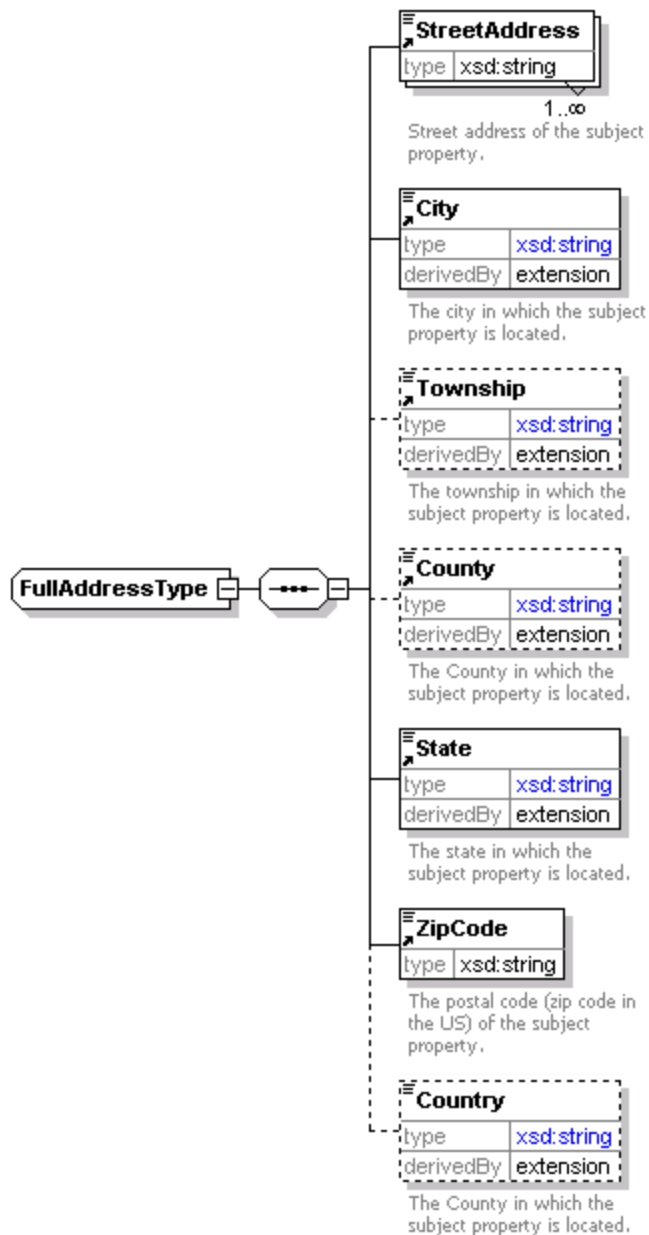
Proposed:



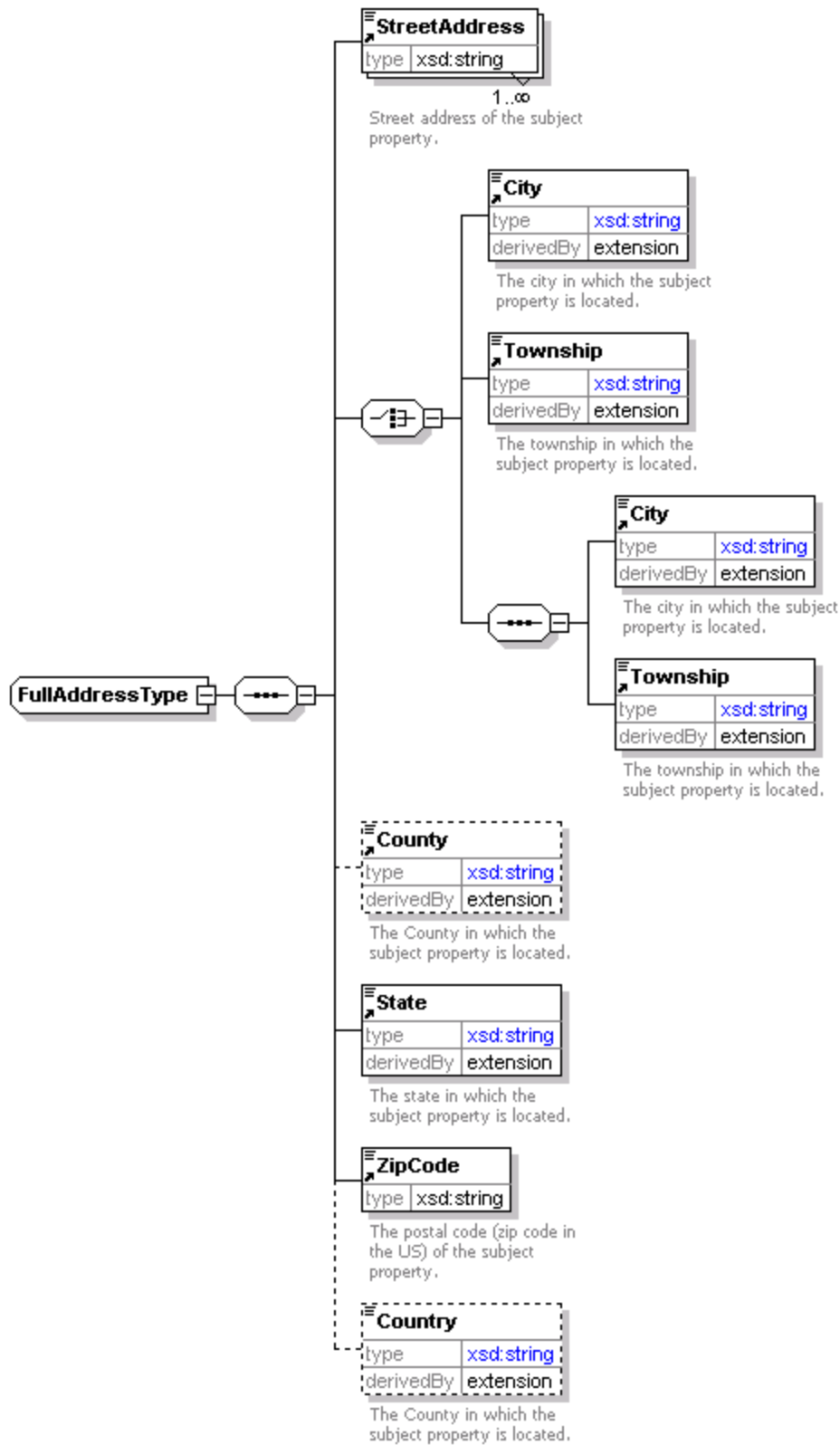
This change affects the submitter if they were using digitized signatures.

3. Address Schema change. Currently, if an address is required, then City is required to be entered. If the address is a Township, not a City, then Township should be required. To accommodate this, a change in the address schema would make these a choice of City or Township or City and Township.

Current:



Proposed:



This change does not affect anyone that has currently implemented the Satisfaction or Certificate of Release schema.

4. New value for Relationship Status of an individual (or group of individuals) for the Mortgagor on the Satisfaction and Certificate of Release:
 - a. Currently we have three statuses: “as husband and wife”, “as wife and husband” and “a single person”
 - b. A request has been made to add “a married person” to this list

This change will only affect the submitter and allowing electronic processing of the documents that contain this status. Currently, these documents still have to be manually processed.

Attribute versus Element

Public opinion of what each is used for:

Attributes	Elements
Used for holding meta-data (data about data, eg. ID numbers, information irrelevant to the users)	Used for holding data (information user wants to see)
Can only be defined by a datatype	Can be defined by a datatype, attributes, and structures (this makes them more extensible)
Not expandable for future changes (can only change its datatype)	Can add more attributes, change the datatype or change its structure
Cannot have multiple occurrences	Allows for multiple occurrences
Independent of ordering	Dependent on positional ordering

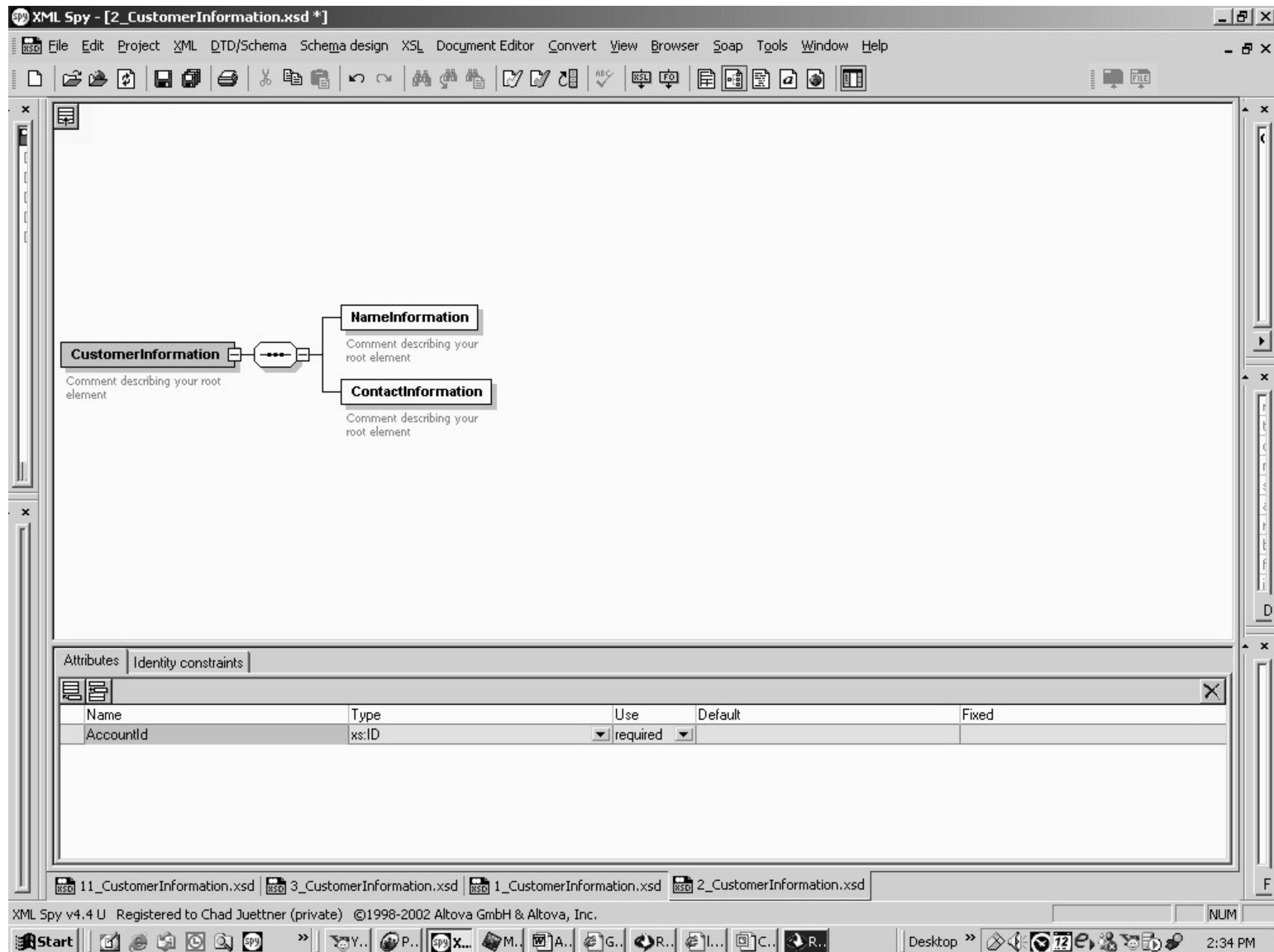
Customer Information element contains 14 attributes identifying information about the customer

The screenshot displays the XML Spy v4.4 U interface. The main window shows the 'CustomerInformation' schema with a comment: 'Comment describing your root element'. Below this, the 'Attributes' tab is active, showing a table of 14 attributes. The table has columns for Name, Type, Use, Default, and Fixed. The attributes are: AccountId (xs:ID, required), FirstName (xs:string, optional), MiddleName (xs:string, optional), LastName (xs:string, optional), OrganizationName (xs:string, optional), StreetAddress (xs:string, required), City (xs:string, required), County (xs:string, optional), CountyFIPSCode (xs:string, optional), State (xs:string, required), StateFIPSCode (xs:string, optional), Country (xs:string, optional), CountryCode (xs:string, optional), and PhoneNumber (xs:string, required).

Name	Type	Use	Default	Fixed
AccountId	xs:ID	required		
FirstName	xs:string	optional		
MiddleName	xs:string	optional		
LastName	xs:string	optional		
OrganizationName	xs:string	optional		
StreetAddress	xs:string	required		
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		
PhoneNumber	xs:string	required		

XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc.

- Customer information is split into two components
 - Name information
 - Contact information



Name Information contains information about the customer's name

The screenshot shows the XML Spy application window titled "XML Spy - [2_CustomerInformation.xsd *]". The main workspace displays a schema diagram where a root element **CustomerInformation** (commented "Comment describing your root element") contains two sub-elements: **NameInformation** (commented "Comment describing your root element") and **ContactInformation** (commented "Comment describing your root element").

Below the workspace, the "Attributes" tab is active, showing a table of attributes for the selected element.

Name	Type	Use	Default	Fixed
FirstName	xs:string	optional		
MiddleName	xs:string	optional		
LastName	xs:string	optional		
OrganizationName	xs:string	optional		

The status bar at the bottom indicates "XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc." and the system clock shows "9:05 AM".

Contact Information contains information about the customer's contact information

XML Spy - [2_CustomerInformation.xsd *]

File Edit Project XML DTD/Schema Schema design XSL Document Editor Convert View Browser Soap Tools Window Help

CustomerInformation
Comment describing your root element

NameInformation
Comment describing your root element

ContactInformation
Comment describing your root element

Attributes Identity constraints

Name	Type	Use	Default	Fixed
StreetAddress	xs:string	required		
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		
PhoneNumber	xs:string	required		

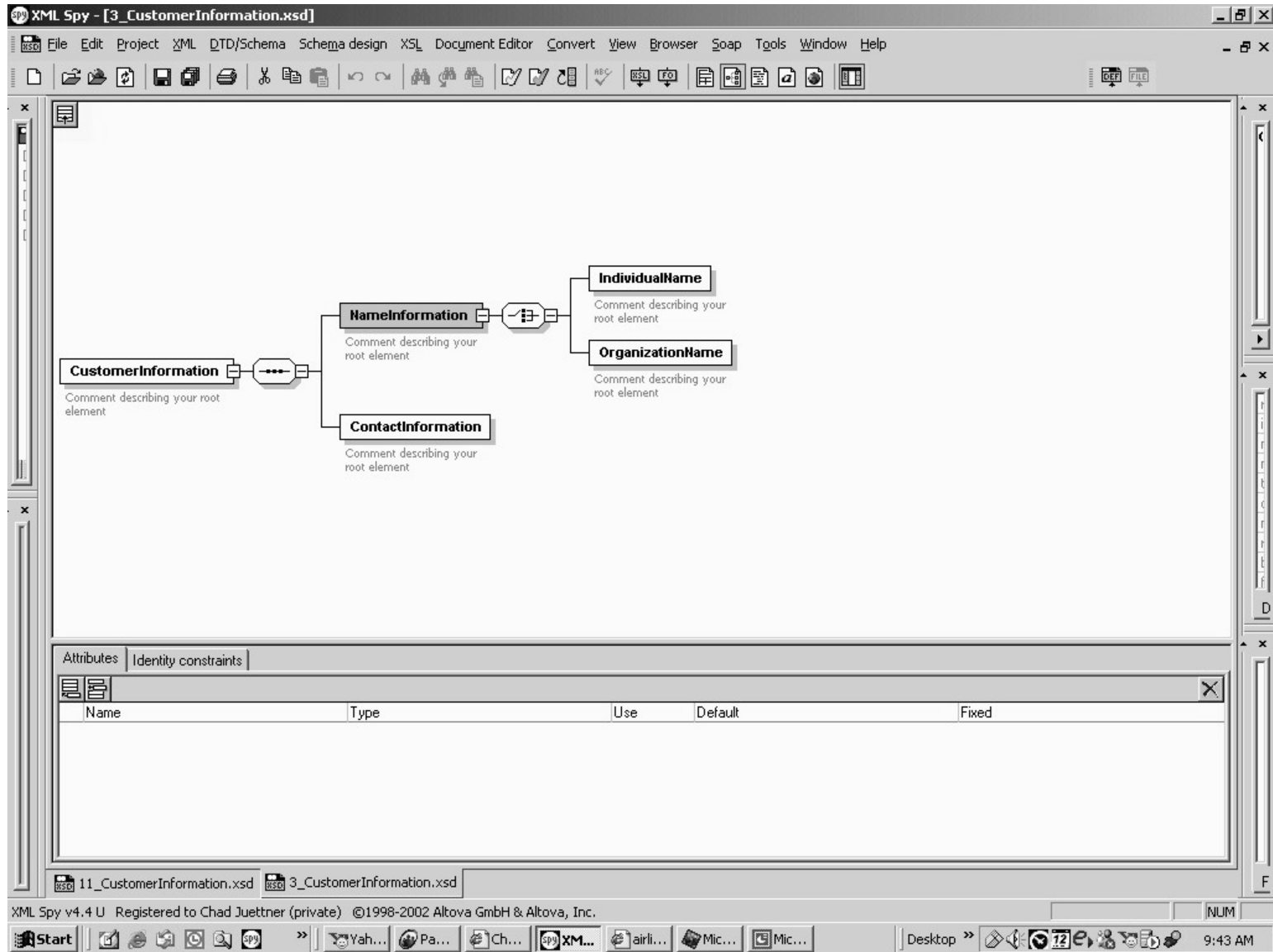
2_CustomerInformation.xsd

XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc.

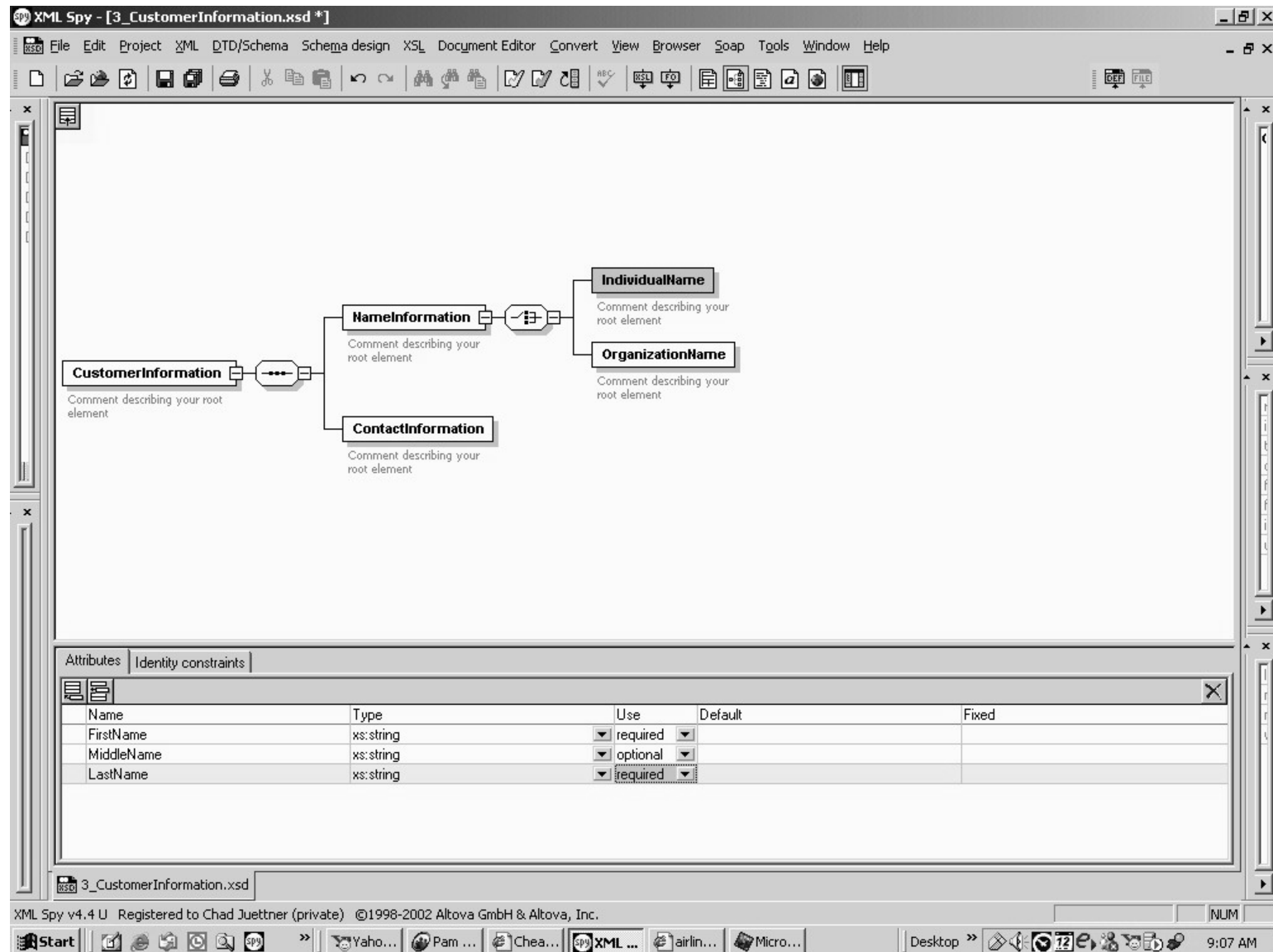
Start | Yahoo... | Pam ... | Chea... | XML ... | airlin... | Micro... | Desktop » | 9:06 AM

Name Information is split into two components:

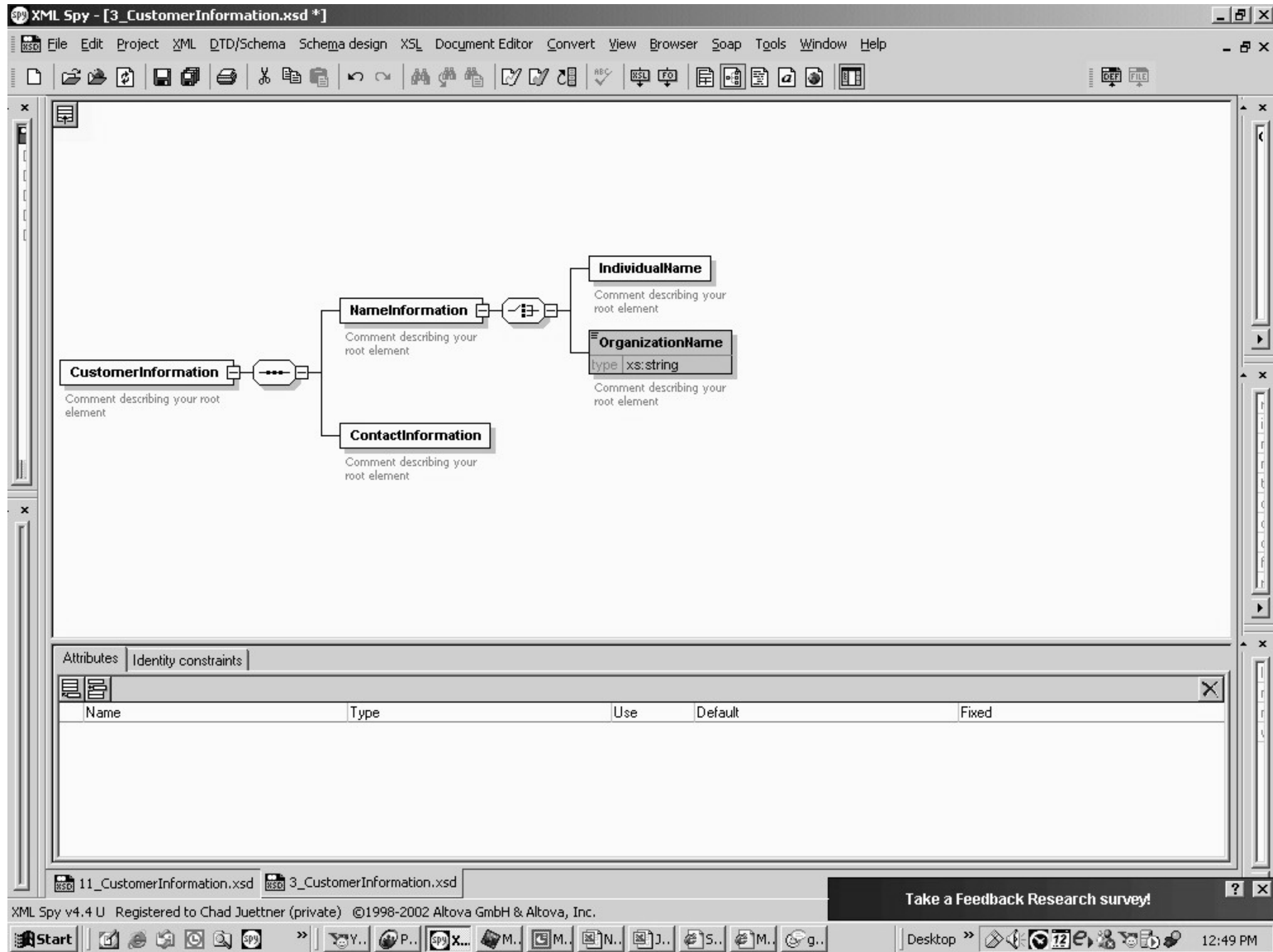
- Individual name
- Organization name



Individual Name contains information for a person.



Organization Name contains information about a company.



Contact Information needs another street address...

The screenshot shows the XML Spy application window titled "XML Spy - [4_CustomerInformation.xsd *]". The main workspace displays a schema diagram where the **CustomerInformation** element (commented as "Comment describing your root element") contains two child elements: **NameInformation** (commented as "Comment describing your root element") and **ContactInformation** (commented as "Comment describing your root element").

Below the workspace, the "Attributes" tab is active, showing a table of attributes for the selected element. The table has columns for Name, Type, Use, Default, and Fixed.

Name	Type	Use	Default	Fixed
StreetAddress1	xs:string	required		
StreetAddress2	xs:string	optional		
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		
PhoneNumber	xs:string	required		

The status bar at the bottom indicates "XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc." and shows the system clock as 9:10 AM.

Making Street Address an element allows an unlimited number of street addresses

The screenshot displays the XML Spy application window titled "XML Spy - [5_CustomerInformation.xsd *]". The main workspace shows a schema diagram for the **CustomerInformation** root element. It consists of a sequence of three elements: **CustomerInformation**, **NameInformation**, and **ContactInformation**. The **ContactInformation** element contains a sequence of **StreetAddress** elements. The **StreetAddress** element is of type **xs:string** and has a cardinality of **1..∞**, indicating an unlimited number of occurrences.

Below the diagram, the "Attributes" tab is selected, showing a table of attributes for the **CustomerInformation** element.

Name	Type	Use	Default	Fixed
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		
PhoneNumber	xs:string	required		

The status bar at the bottom indicates "XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc." and shows the system clock as 9:11 AM.

Another field for a phone number is requested:

The screenshot shows the XML Spy application window titled "XML Spy - [6_CustomerInformation.xsd *]". The main area displays an XSD schema diagram. The root element is **CustomerInformation**, which contains two child elements: **NameInformation** and **ContactInformation**. **NameInformation** has a comment "Comment describing your root element". **ContactInformation** also has a comment "Comment describing your root element" and contains a **StreetAddress** element. The **StreetAddress** element has a type of `xs:string` and a cardinality of `1..∞`. Below the diagram, the "Attributes" tab is selected, showing a table of attributes for the **CustomerInformation** element.

Name	Type	Use	Default	Fixed
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		
OfficePhoneNumber	xs:string	optional		
CellPhoneNumber	xs:string	optional		

The status bar at the bottom shows "XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc." and the system clock displays "9:12 AM".

Another request for a phone number...

XML Spy - [7_CustomerInformation.xsd *]

File Edit Project XML DTD/Schema Schema design XSL Document Editor Convert View Browser Soap Tools Window Help

CustomerInformation
Comment describing your root element

NameInformation
Comment describing your root element

ContactInformation
Comment describing your root element

StreetAddress
type xs:string
1..∞
Comment describing your root element

Attributes Identity constraints

Name	Type	Use	Default	Fixed
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		
OfficePhoneNumber	xs:string	optional		
CellPhoneNumber	xs:string	optional		
OtherNumberType	xs:string	optional		
OtherNumber	xs:string	optional		

7_CustomerInformation.xsd

XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc.

Start | Yahoo... | Pam ... | Chea... | XML ... | airlin... | Micro... | Desktop » | 9:13 AM

Adding a Communication Information element allows unlimited numbers (phone, cell, pager, fax, email, etc.)

XML Spy - [8_CustomerInformation.xsd *]

File Edit Project XML DTD/Schema Schema design XSL Document Editor Convert View Browser Soap Tools Window Help

CustomerInformation
Comment describing your root element

NameInformation
Comment describing your root element

ContactInformation
Comment describing your root element

StreetAddress
type xs:string
Comment describing your root element
1..∞

CommunicationInformation
Comment describing your root element
1..∞

Attributes Identity constraints

Name	Type	Use	Default	Fixed
City	xs:string	required		
County	xs:string	optional		
CountyFIPSCode	xs:string	optional		
State	xs:string	required		
StateFIPSCode	xs:string	optional		
Country	xs:string	optional		
CountryCode	xs:string	optional		

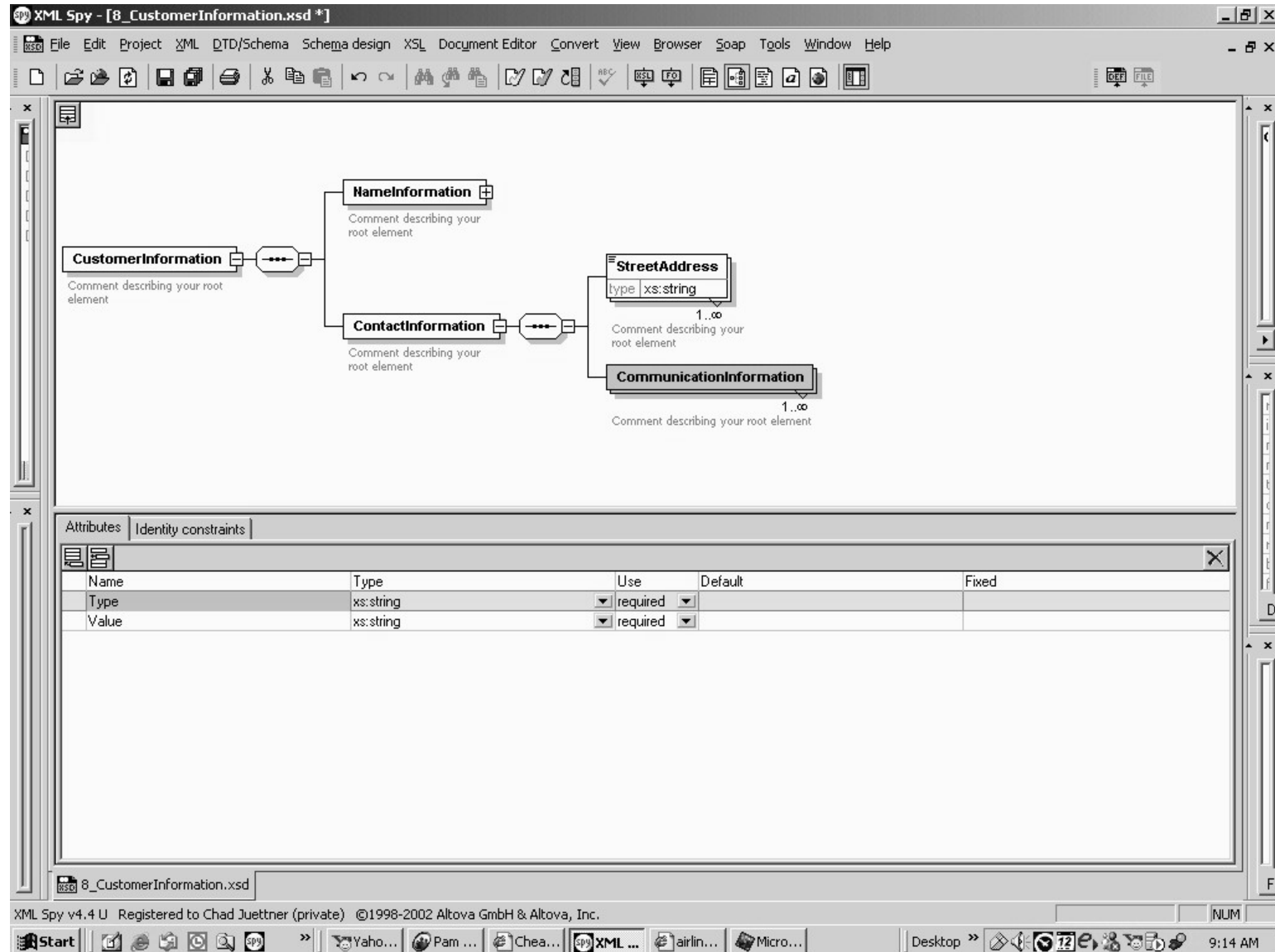
8_CustomerInformation.xsd

XML Spy v4.4 U Registered to Chad Juettner (private) ©1998-2002 Altova GmbH & Altova, Inc.

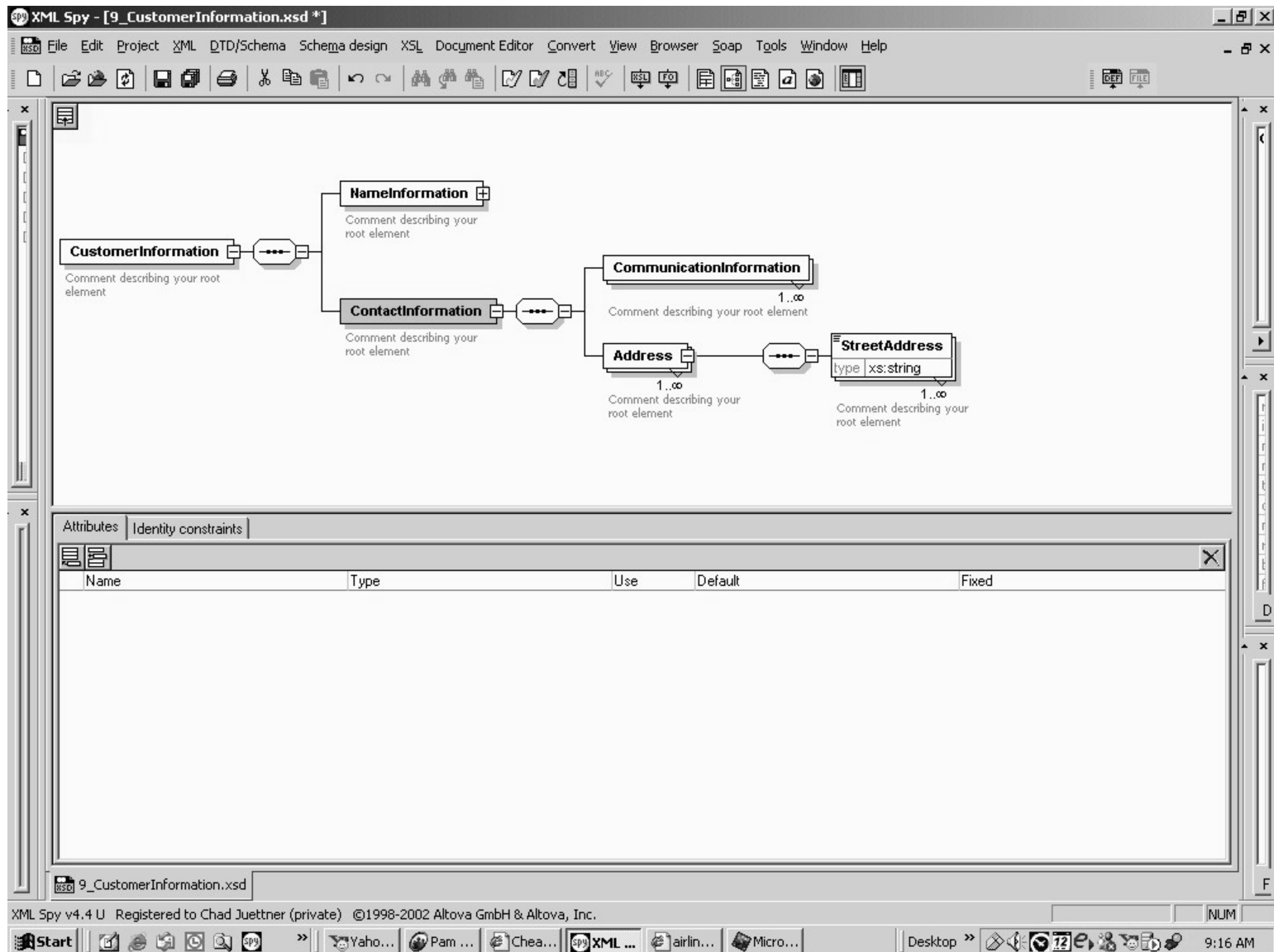
Start | Yahoo... | Pam... | Chea... | XML... | airlin... | Micro... | Desktop | 9:14 AM

Communication Information has two attributes:

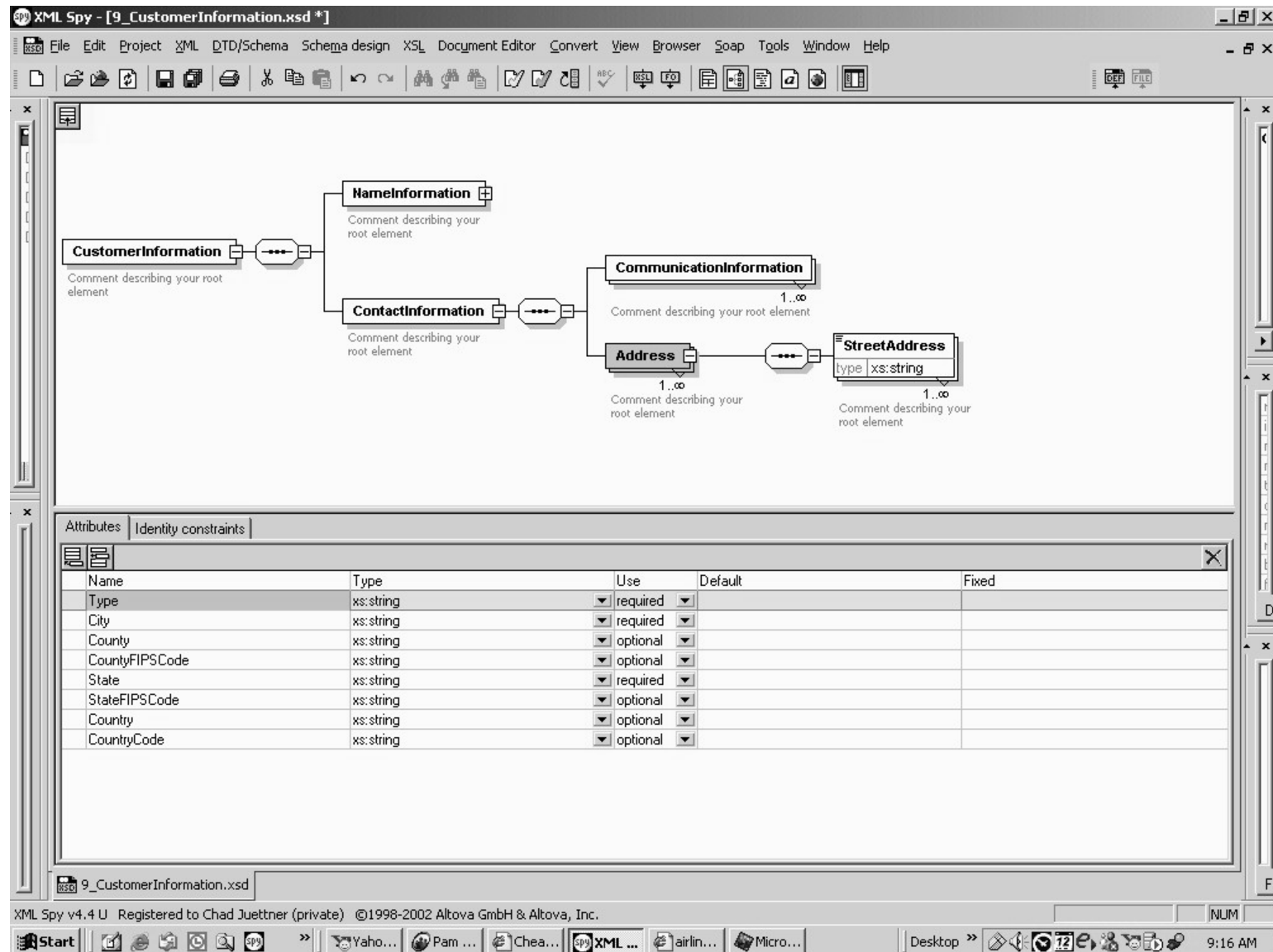
- Type (desk phone, fax, cell, email)
- Value



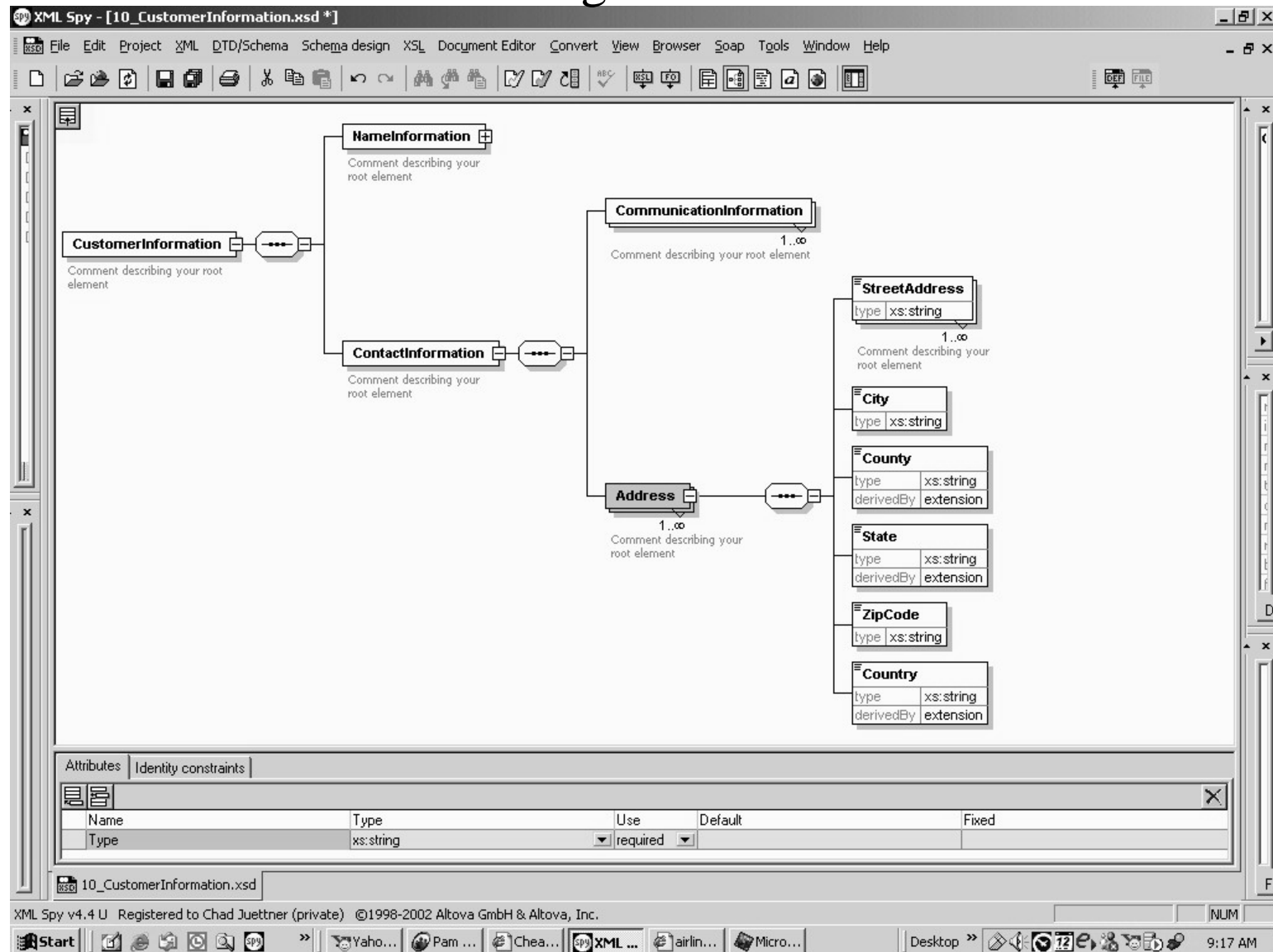
Adding an Address element allows unlimited types of addresses



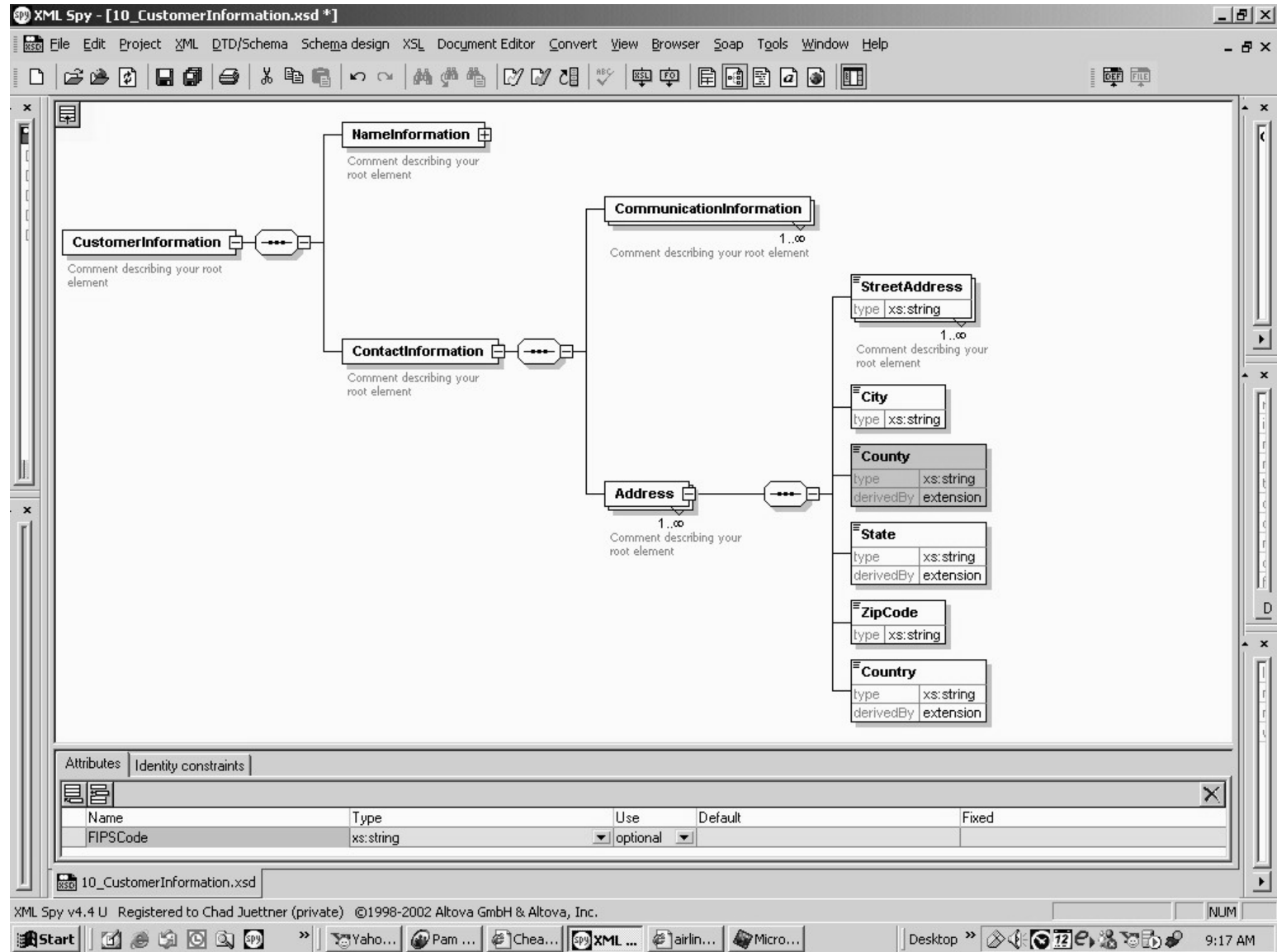
Address (an element) has an attribute (Type) to identify the type of address (mailing, physical, billing, etc.)



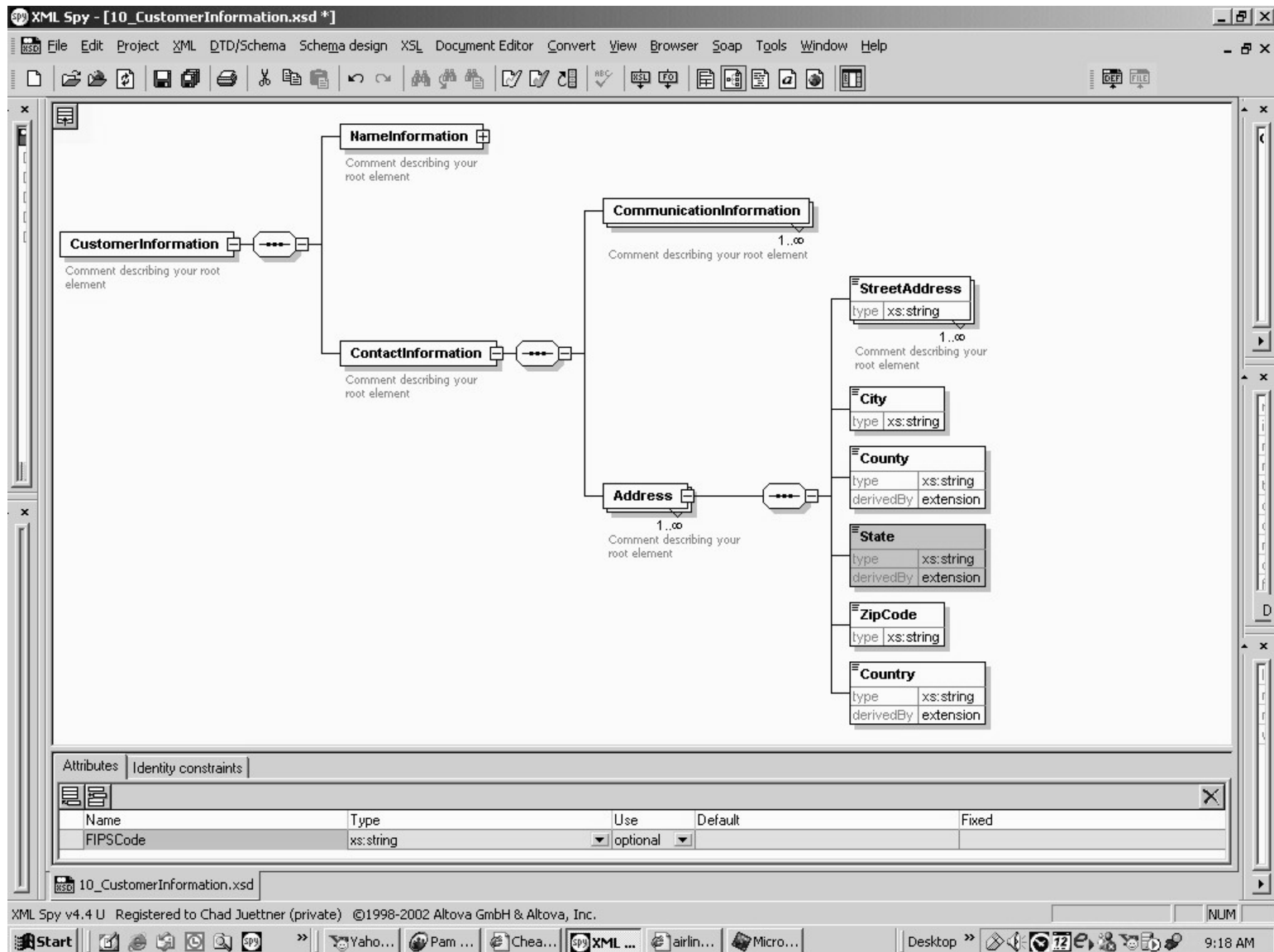
Attributes on the Address element are now represented using elements



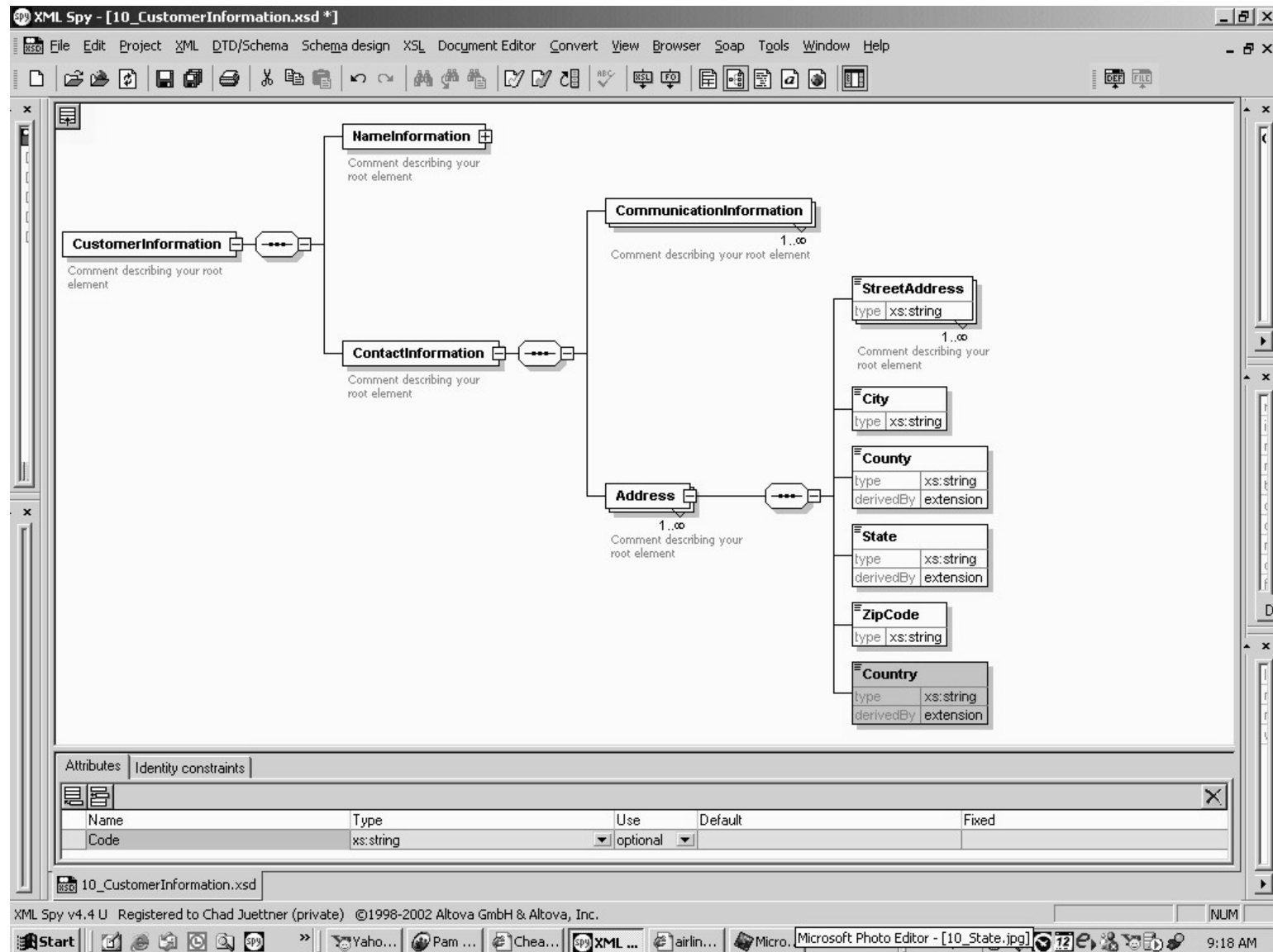
County is now an element with its FIPSCode as an attribute



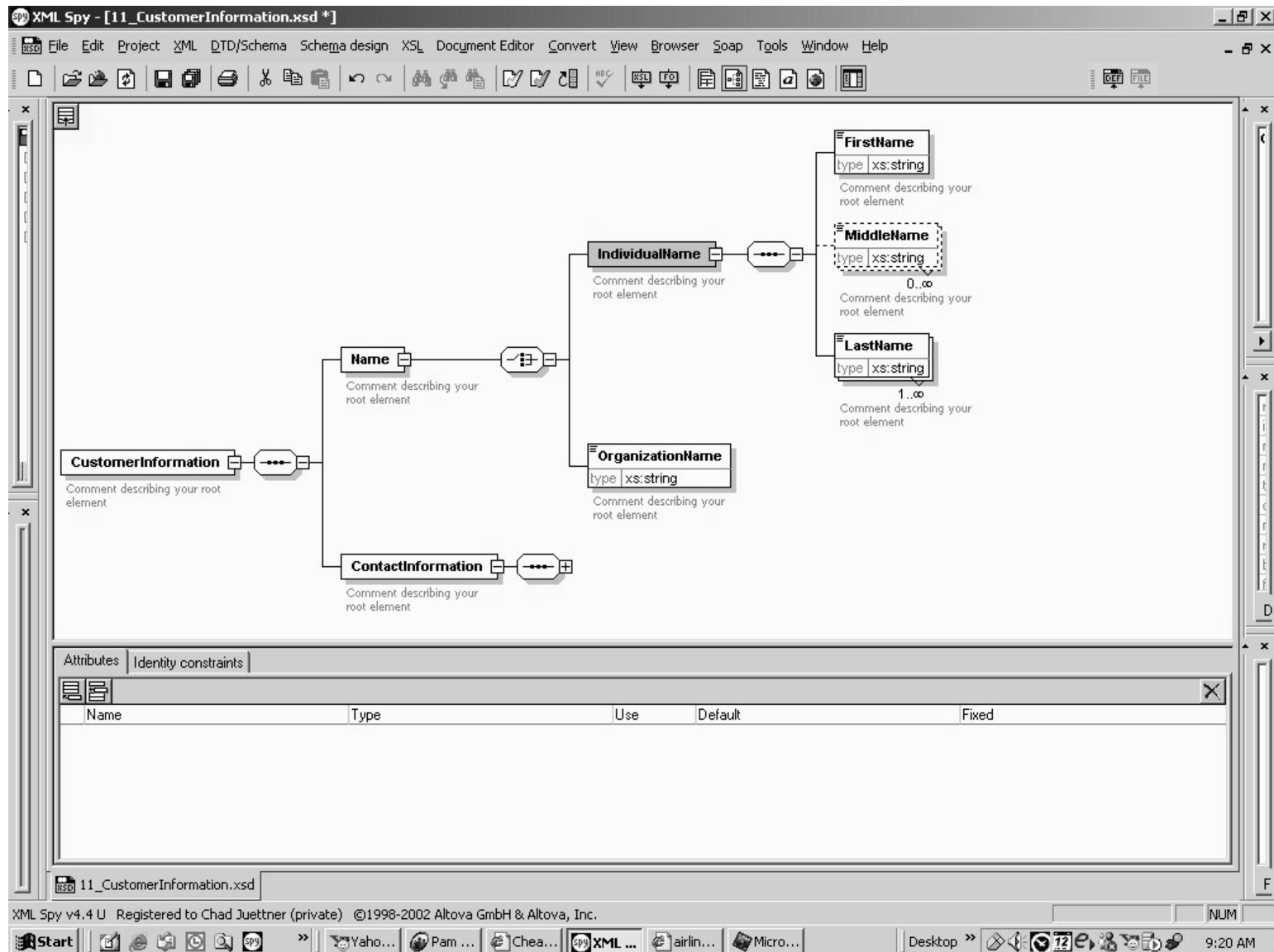
State is now an element with its FIPSCode as an attribute



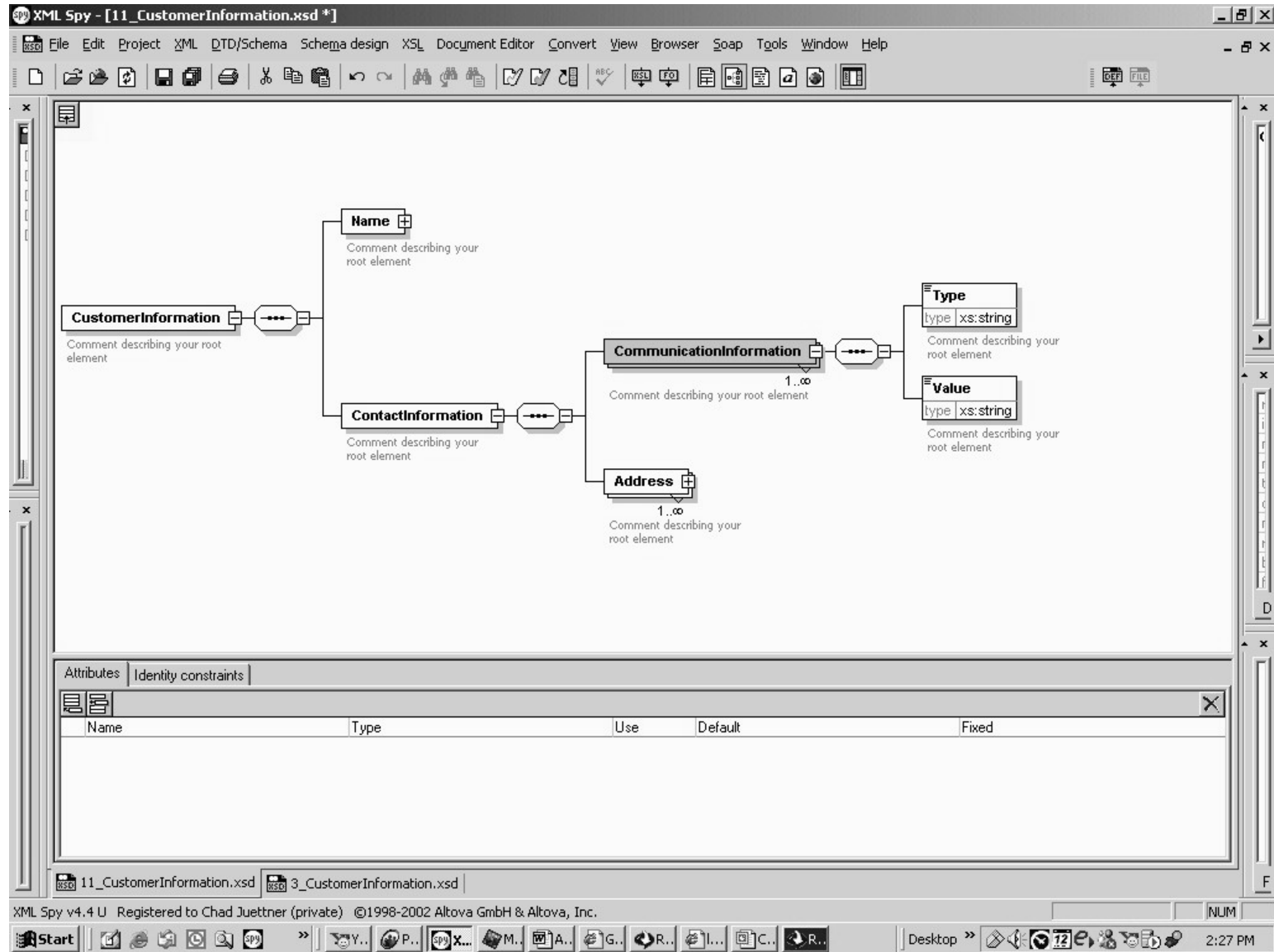
Country is now an element with its Code as an attribute



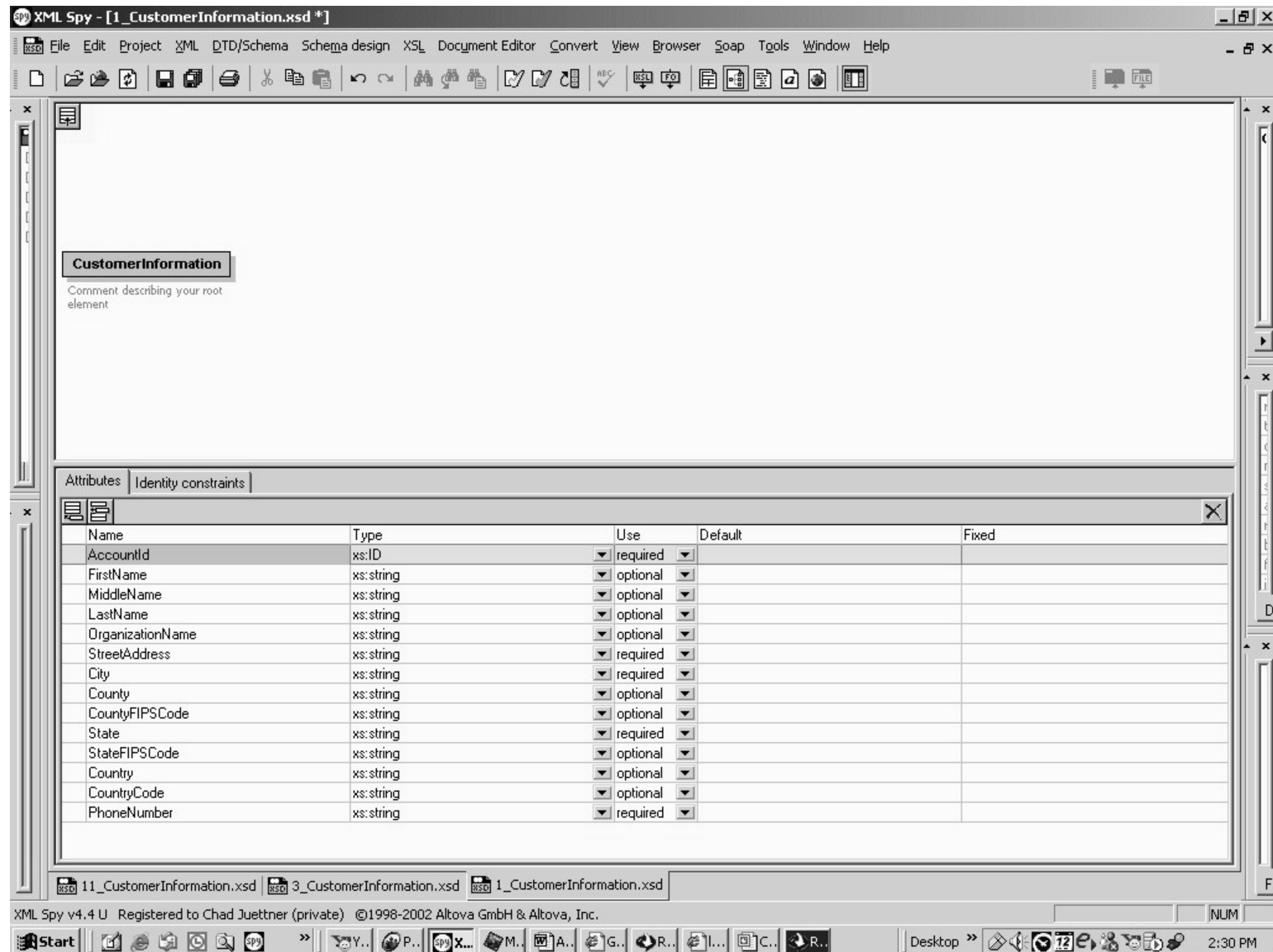
Attributes on the Individual element are now represented using elements for flexibility in allowing more than one



Communication Information's Type and Value attributes are now elements which can be changed at anytime to allow multiple of each



Started with this...



Ended with this.

