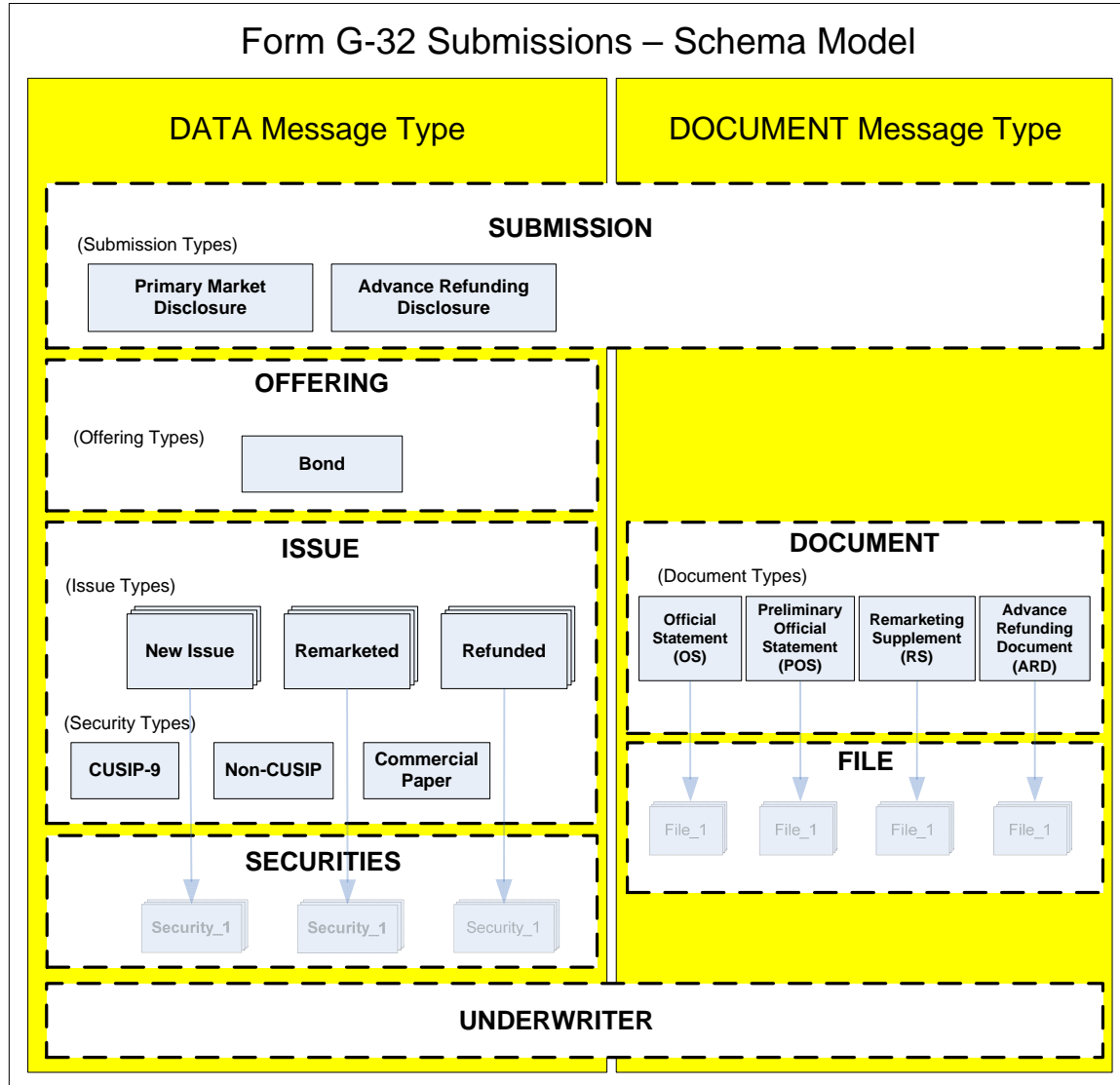


DATA MESSAGE, DOCUMENT MESSAGE & TYPE DEFINITION SCHEMAS

Set forth below is a schema model showing the two message types (Data and Document) required to make a submission. Within each message type are information containers (Submission, Offering, Issue, Securities, Document, Files, and Underwriter) and the information types and values associated with each.



XML MESSAGE SCHEMAS

Detailed below are three (3) schemas; Data, Document, and a common Type Definition schema that is included in each of the Data and Document schemas by reference. The Data and Document schemas describe the base structural containers which in turn reference child-level containers and specifications described in the Type Definition schema. The schemas are universally applicable to Data and Document Messages for Primary Market and Advance Refunding submissions.

Data Message Schema

```
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="EMMA-SUBMISSION-XML" targetNamespace="EMMA-SUBMISSION-XML"
elementFormDefault="qualified" attributeFormDefault="unqualified" version="1.0">
  <xs:include schemaLocation="..." />
  <xs:element name="DisclosureMessage" type="DataMessageType"/>
  <!-- Type Definition starts -->
  <xs:complexType name="DataMessageType">
    <xs:sequence>
      <xs:element name="Submission" type="SubmissionDetailsType" minOccurs="1" maxOccurs="1"/>
      <xs:element name="Offering" type="OfferingDetailsType" minOccurs="1" maxOccurs="1"/>
      <xs:element name="Underwriter" type="UnderwriterDetailsType" minOccurs="1" maxOccurs="1"/>
      <xs:element name="OSAvailabilityContactInformation" type="OSAvailabilityContactInformationType" minOccurs="0"
maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
  <!-- Type definition ends -->
</xs:schema>
```

Document Message Schema

```
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="EMMA-SUBMISSION-XML" targetNamespace="EMMA-SUBMISSION-XML"
elementFormDefault="qualified" attributeFormDefault="unqualified" version="1.0">
  <xs:include schemaLocation="..." />
  <xs:element name="DisclosureMessage" type="DocumentMessageType"/>
  <!-- Type Definition starts -->
  <xs:complexType name="DocumentMessageType">
```

```

    <xs:sequence>
      <xs:element name="Submission" type="SubmissionDetailsType" minOccurs="1" maxOccurs="1"/>
      <xs:element name="Document" type="DocumentDetailsType" minOccurs="1" maxOccurs="1"/>
      <xs:element name="Underwriter" type="UnderwriterDetailsType" minOccurs="1" maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
  <!-- Type definition ends -->
</xs:schema>

```

Type Definition Schema

```

<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified" attributeFormDefault="unqualified" version="1.0">
  <!-- Type Definition starts -->
  <xs:complexType name="SubmissionDetailsType">
    <xs:choice minOccurs="0" maxOccurs="1">
      <xs:element name="SubmissionIdentifier" type="Max25Text"/>
      <xs:element name="SubmissionUnderwrittenCUSIP9Identifier" type="Cusip9Type"/>
    </xs:choice>
    <xs:attribute name="SubmissionType" type="SubmissionType" use="required"/>
    <xs:attribute name="SubmissionStatus" type="SubmissionStatusType"/>
  </xs:complexType>
  <xs:complexType name="OfferingDetailsType">
    <xs:sequence>
      <xs:element name="Issue" type="IssuesType" maxOccurs="unbounded"/>
      <xs:element name="UnderwriterAssessmentExemptionIndicator" type="UnderwriterAssessmentExemptionIndicatorType"
minOccurs="0" maxOccurs="4"/>
      <xs:element name="UnderwriterAssessmentDiscountIndicator" type="UnderwriterAssessmentDiscountIndicatorType"
minOccurs="0" maxOccurs="2"/>
      <xs:element name="CUSIP9OfLatestMaturityOnIssueNotUnderwritten" type="Cusip9Type" minOccurs="0"
maxOccurs="unbounded"/>
    </xs:sequence>
    <xs:attribute name="OfferingType" type="OfferingType"/>
    <xs:attribute name="OSAvailabilityStatus" type="OSAvailabilityStatusType"/>
    <xs:attribute name="POSAvailabilityStatus" type="POSAvailabilityStatusType"/>
    <xs:attribute name="UnderwritingSpreadDisclosureIndicator" type="UnderwritingSpreadDisclosureIndicatorType"/>
    <xs:attribute name="UnderwritingSpread" type="xs:float"/>
  </xs:complexType>

```

```

<xs:complexType name="IssuesType">
  <xs:sequence>
    <xs:element name="OriginalCUSIP9OfRemarketedSecurity" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="UnderlyingSecurities" type="UnderlyingSecuritiesType" minOccurs="0" maxOccurs="1"/>
  </xs:sequence>
  <xs:attribute name="IssueType" type="IssueType"/>
  <xs:attribute name="SecurityType" type="SecurityType"/>
  <xs:attribute name="IssueDescription" type="Max250Text"/>
  <xs:attribute name="IssuerName" type="Max250Text"/>
  <xs:attribute name="IssuerState" type="StateCode"/>
  <xs:attribute name="IssueClosingDate" type="ISODate"/>
  <xs:attribute name="IssueDatedDate" type="ISODate"/>
  <xs:attribute name="OriginalDatedDate" type="ISODate"/>
  <xs:attribute name="CUSIP6" type="Cusip6Type"/>
</xs:complexType>
<xs:complexType name="UnderlyingSecuritiesType">
  <xs:sequence>
    <xs:element name="Security" type="SecurityDetailsType" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="SecurityDetailsType">
  <xs:attribute name="CUSIP9" type="Cusip9Type"/>
  <xs:attribute name="MaturityDate" type="ISODate"/>
  <xs:attribute name="SecurityDatedDate" type="ISODate"/>
  <xs:attribute name="InitialOfferingPriceYield" type="xs:float"/>
  <xs:attribute name="MaturityPrincipalAmount" type="xs:decimal"/>
  <xs:attribute name="InterestRate" type="xs:decimal"/>
  <xs:attribute name="SecurityStatus" type="SecurityStatusType"/>
  <xs:attribute name="ParValueUnderwritten" type="xs:decimal"/>
  <xs:attribute name="OriginalCUSIP9OfRefundedSecurity" type="Cusip9Type"/>
  <xs:attribute name="NewCUSIP9OfUnrefundedBalance" type="Cusip9Type"/>
  <xs:attribute name="NewCUSIP9OfRefundedSecurity" type="Cusip9Type"/>
</xs:complexType>
<xs:complexType name="UnderwriterDetailsType">
  <xs:attribute name="ManagingUnderwriterMSRBID" type="Max15Text" use="required"/>
</xs:complexType>
<xs:complexType name="DocumentDetailsType">
  <xs:sequence>

```

```

    <xs:element name="CUSIP9IdentifierOfRefundingIssue" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="OriginalCUSIP9OfRefundedSecurity" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="UnderlyingFiles" type="UnderlyingFilesType" maxOccurs="1"/>
  </xs:sequence>
  <xs:attribute name="DocumentType" type="DocumentType" use="required"/>
  <xs:attribute name="DocumentDescription" type="Max75Text"/>
  <xs:attribute name="DocumentPostingOperationIndicator" type="DocumentPostingOperationIndicatorType"/>
</xs:complexType>
<xs:complexType name="UnderlyingFilesType">
  <xs:sequence>
    <xs:element name="File" type="FileDetailsType" maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="FileDetailsType">
  <xs:attribute name="FileOrder" type="xs:integer"/>
  <xs:attribute name="DateReceivedFromIssuer" type="ISODate" use="required"/>
</xs:complexType>
<xs:complexType name="OSAvailabilityContactInformationType">
  <xs:attribute name="OSContactOrganizationName" type="Max140Text"/>
  <xs:attribute name="OSContactFirstName" type="Max25Text"/>
  <xs:attribute name="OSContactLastName" type="Max25Text"/>
  <xs:attribute name="OSContactTitle" type="Max140Text"/>
  <xs:attribute name="OSContactPhoneNumber" type="Max15Text"/>
  <xs:attribute name="OSContactPhoneNumberExtension" type="Max6Text"/>
  <xs:attribute name="OSContactAddress" type="Max140Text"/>
  <xs:attribute name="OSContactCity" type="Max25Text"/>
  <xs:attribute name="OSContactState" type="StateCode"/>
  <xs:attribute name="OSContactZipCode" type="Max15Text"/>
  <xs:attribute name="OSContactEMailAddress" type="Max50Text"/>
</xs:complexType>
<xs:simpleType name="SubmissionType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="PrimaryMarketDisclosure"/>
    <xs:enumeration value="AdvanceRefundingDisclosure"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="SubmissionStatusType">
  <xs:restriction base="xs:string">

```

```

        <xs:enumeration value="Publish"/>
        <xs:enumeration value="NoticeOfCancellationOfOffering"/>
        <xs:enumeration value="Test"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="OfferingType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="Bond"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="IssueType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="NewIssue"/>
        <xs:enumeration value="Remarketed"/>
        <xs:enumeration value="Refunded"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="SecurityType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="CUSIP-9"/>
        <xs:enumeration value="CommercialPaper"/>
        <xs:enumeration value="non-CUSIP"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="DocumentType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="OfficialStatement"/>
        <xs:enumeration value="PreliminaryOfficialStatement"/>
        <xs:enumeration value="AdvanceRefundingDocument"/>
        <xs:enumeration value="RemarketingSupplement"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="DocumentPostingOperationIndicatorType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="AppendToPostedDocment"/>
        <xs:enumeration value="ReplacePostedDocument"/>
    </xs:restriction>
</xs:simpleType>

```

```

<xs:simpleType name="POSAvailabilityStatusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="POSSubmitted"/>
    <xs:enumeration value="NoPOSPrepared"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="OSAvailabilityStatusType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="OSNotAvailableAtClosing"/>
    <xs:enumeration value="OSAvailableOnlyFromUnderwriter_15c212ExemptLimitedOffering"/>
    <xs:enumeration value="OSNotProduced_15c212ExemptLimitedOffering"/>
    <xs:enumeration value="OSNotProduced_15c212ExemptShortTermOffering"/>
    <xs:enumeration value="OSNotProduced_15c212ExemptPuttableOffering"/>
    <xs:enumeration value="OSNotProduced_15c212ExemptSmallOffering"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="UnderwriterAssessmentDiscountIndicatorType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="EntireOfferingMatures2YearsOrLess"/>
    <xs:enumeration value="EntireOfferingPuttable2YearsOrLess"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="UnderwriterAssessmentExemptionIndicatorType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="OfferingLessThan1Million"/>
    <xs:enumeration value="EntireOfferingMatures9MonthsOrLess"/>
    <xs:enumeration value="EntireOfferingPuttable9MonthsOrLess"/>
    <xs:enumeration value="Rule15c212ExemptLimitedOffering"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="UnderwritingSpreadDisclosureIndicatorType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="DisclosedInOfficialStatement"/>
    <xs:enumeration value="NotDisclosed_CompetitiveSale"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="SecurityStatusType">
  <xs:restriction base="xs:string">

```

```

        <xs:enumeration value="Underwritten"/>
        <xs:enumeration value="PartiallyUnderwritten"/>
        <xs:enumeration value="NotUnderwritten"/>
        <xs:enumeration value="Remarketed"/>
        <xs:enumeration value="NotRemarketed"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Cusip6Type">
    <xs:restriction base="xs:string">
        <xs:minLength value="6"/>
        <xs:maxLength value="6"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Cusip9Type">
    <xs:restriction base="xs:string">
        <xs:minLength value="9"/>
        <xs:maxLength value="9"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="StateCode">
    <xs:restriction base="xs:string">
        <xs:pattern value="[A-Z]{2,2}"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ISODate">
    <xs:restriction base="xs:date"/>
</xs:simpleType>
<xs:simpleType name="ISODateTime">
    <xs:restriction base="xs:dateTime"/>
</xs:simpleType>
<xs:simpleType name="Max250Text">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="250"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max140Text">
    <xs:restriction base="xs:string">

```



```
        <xs:minLength value="1"/>
        <xs:maxLength value="140"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max75Text">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="75"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max50Text">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="50"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max25Text">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="25"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max15Text">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="15"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max6Text">
    <xs:restriction base="xs:string">
        <xs:minLength value="1"/>
        <xs:maxLength value="6"/>
    </xs:restriction>
</xs:simpleType>
<!-- Type definition ends -->
</xs:schema>
```

SUMMARY OF CHANGES FROM PRELIMINARY SPECIFICATIONS

(underlining indicates additions; strikethrough indicates deletions)

Data Message Schema:

- `<xs:element name="OSAvailabilityContactInformation" type="OSAvailabilityContactInformationType" minOccurs="0" maxOccurs="1 unbounded" />`

Type Definition Schema:

- `<xs:complexType name="OfferingDetailsType">`
`<xs:sequence>`
`<xs:element name="Issue" type="IssuesType" maxOccurs="unbounded" />`
`<xs:element name="UnderwriterAssessmentExemptionIndicator" type="UnderwriterAssessmentExemptionIndicatorType" minOccurs="0" maxOccurs="4 5" />`
`<xs:element name="UnderwriterAssessmentDiscountIndicator" type="UnderwriterAssessmentDiscountIndicatorType" minOccurs="0" maxOccurs="2" />`
`<xs:element name="CUSIP9OfLatestMaturityOnIssueNotUnderwritten UnderwritingSpreadDisclosureIndicatorType" type="Cusip9Type UnderwritingSpreadDisclosureIndicatorType" minOccurs="0" maxOccurs="unbounded" />`
`</xs:sequence>`
`<xs:attribute name="OfferingType" type="OfferingType" />`
`<xs:attribute name="OSAvailabilityStatus" type="OSAvailabilityStatusType" />`
`<xs:attribute name="POSAvailabilityStatus" type="POSAvailabilityStatusType" />`
`<xs:attribute name="UnderwritingSpreadDisclosureIndicator" type="UnderwritingSpreadDisclosureIndicatorType" />`
`<xs:attribute name="UnderwritingSpread" type="xs:float" />`
`</xs:complexType>`
- `<xs:complexType name="IssuesType">`
`<xs:sequence>`
`<xs:element name="OriginalCUSIP9OfRemarketedSecurity" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded" />`
`<xs:element name="UnderlyingSecurities" type="UnderlyingSecuritiesType" minOccurs="0" maxOccurs="1" />`
`</xs:sequence>`
`<xs:attribute name="IssueType" type="IssueType" />`
`<xs:attribute name="SecurityType" type="SecurityType" />`
`<xs:attribute name="IssueDescription" type="Max250Text" />`

```

<xs:attribute name="IssuerName" type="Max250Text"/>
<xs:attribute name="IssuerState" type="StateCode"/>
<xs:attribute name="IssueClosingDate" type="ISODate"/>
<xs:attribute name="IssueDatedDate" type="ISODate"/>
<xs:attribute name="OriginalDatedDate" type="ISODate"/>
<xs:attribute name="CUSIP6" type="Cusip6Type"/>
<xs:attribute name="CUSIP9OfLatestMaturityOnIssueNotUnderwritten" type="Cusip9Type"/>
</xs:complexType>

● <xs:complexType name="SecurityDetailsType">
  <xs:attribute name="CUSIP9" type="Cusip9Type"/>
  <xs:attribute name="MaturityDate" type="ISODate"/>
  <xs:attribute name="SecurityDatedDate" type="ISODate"/>
  <xs:attribute name="InitialOfferingPriceYield" type="xs:float"/>
  <xs:attribute name="MaturityPrincipalAmount" type="xs:decimal"/>
  <xs:attribute name="InterestRate" type="xs:decimal"/>
  <xs:attribute name="SecurityStatus UnderwrittenIndicator" type="SecurityStatusType UnderwrittenIndicatorType"/>
  <xs:attribute name="ParValueUnderwritten" type="xs:decimal"/>
  <xs:attribute name="OriginalCUSIP9OfRefundedSecurity" type="Cusip9Type"/>
  <xs:attribute name="NewCUSIP9OfUnrefundedBalance" type="Cusip9Type"/>
  <xs:attribute name="NewCUSIP9OfRefundedSecurity" type="Cusip9Type"/>
</xs:complexType>

● <xs:complexType name="UnderwriterDetailsType">
  <xs:attribute name="ManagingUnderwriterMSRBID" type="Max15Text Max10Text" use="required"/>
</xs:complexType>

● <xs:complexType name="DocumentDetailsType">
  <xs:sequence>
    <xs:element name="CUSIP9IdentifierOfRefundingIssue" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="OriginalCUSIP9OfRefundedSecurity" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded"/>
    <xs:element name="UnderlyingFiles" type="UnderlyingFileType" maxOccurs="1"/>
  </xs:sequence>
  <xs:attribute name="DocumentType" type="DocumentType" use="required"/>
  <xs:attribute name="DocumentDescription" type="Max75Text Max250Text"/>
  <xs:attribute name="DocumentPostingOperationIndicator" type="DocumentPostingOperationIndicatorType"/>
<xs:attribute name="DocumentDisclosureCompletionIndicator" type="DocumentDisclosureCompletionIndicatorType" use="required"/>
</xs:complexType>

```

- ```

<xs:complexType name="OSAvailabilityContactInformationType">
 <xs:attribute name="OSContactOrganizationName" type="Max140Text"/>
 <xs:attribute name="OSContactFirstName" type="Max25Text"/>
 <xs:attribute name="OSContactLastName" type="Max25Text"/>
 <xs:attribute name="OSContactTitle" type="Max140Text"/>
 <xs:attribute name="OSContactPrimaryPhoneNumber" type="Max15Text Max14Text"/>
 <xs:attribute name="OSContactPrimaryPhoneNumberExtension" type="Max6Text"/>
 <xs:attribute name="OSContactAddress" type="Max140Text"/>
 <xs:attribute name="OSContactCity" type="Max25Text"/>
 <xs:attribute name="OSContactState" type="StateCode"/>
 <xs:attribute name="OSContactZipCode" type="Max15Text Max14Text"/>
 <xs:attribute name="OSContactEMailAddress" type="Max50Text Max140Text"/>
</xs:complexType>

```
- ```

<xs:simpleType name="SecurityType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="CUSIP-9"/>
    <xs:enumeration value="CommercialPaper CUSIP-6"/>
    <xs:enumeration value="non-CUSIP"/>
  </xs:restriction>
</xs:simpleType>

```
- ```

<xs:simpleType name="DocumentPostingOperationIndicatorType">
 <xs:restriction base="xs:string">
 <xs:enumeration value="AppendToPostedDocment"/>
 <xs:enumeration value="ReplaceRepacePostedDocument"/>
 </xs:restriction>
</xs:simpleType>

```
- ```

<del><xs:simpleType name="DocumentDisclosureCompletionIndicatorType">
  <del><xs:restriction base="xs:string">
    <del><xs:enumeration value="Partial"/>
    <del><xs:enumeration value="Complete"/>
  <del></xs:restriction>
<del></xs:simpleType>


```

- ```

<xs:simpleType name="UnderwriterAssessmentExemptionIndicatorType">
 <xs:restriction base="xs:string">
 <xs:enumeration value="OfferingLessThan1Million"/>
 <xs:enumeration value="EntireOfferingMatures9MonthsOrLess"/>
 <xs:enumeration value="EntireOfferingPuttable9MonthsOrLess"/>
 <xs:enumeration value="Rule15c212Rule15c2-12d11ExemptLimitedOffering"/>
 </xs:restriction>
</xs:simpleType>

```
- ```

<xs:simpleType name="SecurityStatusType UnderwrittenIndicatorType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="NotUnderwritten"/>
    <xs:enumeration value="PartiallyUnderwritten"/>
    <xs:enumeration value="NotUnderwritten"/>
    <xs:enumeration value="Remarketed"/>
    <xs:enumeration value="NotRemarketed"/>
  </xs:restriction>
</xs:simpleType>

```
- ```

<xs:simpleType name="Max75Text">
 <xs:restriction base="xs:string">
 <xs:minLength value="1"/>
 <xs:maxLength value="75"/>
 </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max50Text">
 <xs:restriction base="xs:string">
 <xs:minLength value="1"/>
 <xs:maxLength value="50"/>
 </xs:restriction>
</xs:simpleType>

```
- ```

<xs:simpleType name="Max15Text Max14Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="15 14"/>
  </xs:restriction>
</xs:simpleType>

```

```
<xs:simpleType name="Max10Text">  
  <xs:restriction base="xs:string">  
    <xs:minLength value="1"/>  
    <xs:maxLength value="10"/>  
  </xs:restriction>  
</xs:simpleType>
```