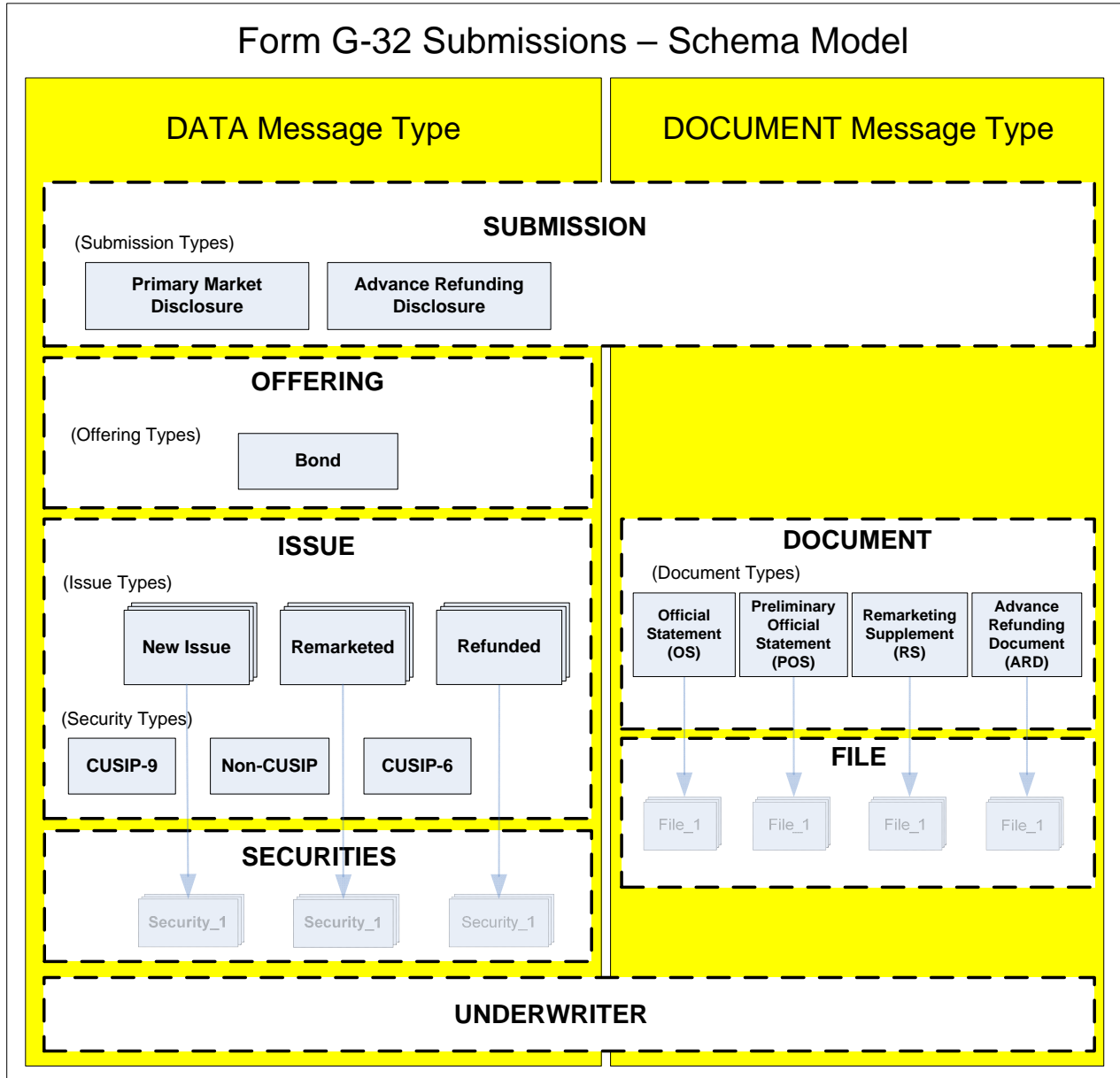


SUBMISSION
DATA MESSAGE, DOCUMENT MESSAGE & TYPE DEFINITION SCHEMAS

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="unbounded"/>
    </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="5"/>
      <xs:element name="UnderwriterAssessmentDiscountIndicator" type="UnderwriterAssessmentDiscountIndicatorType"
minOccurs="0" maxOccurs="2"/>
    </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="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="UnderwrittenIndicator" type="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="Max10Text" use="required"/>
</xs:complexType>
<xs:complexType name="DocumentDetailsType">
    <xs:sequence>
        <xs:element name="CUSIP9IdentifierOfRefundingIssue" type="Cusip9Type" minOccurs="0" maxOccurs="unbounded"/>
    </xs:sequence>

```

```

    <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="Max250Text"/>
  <xs:attribute name="DocumentPostingOperationIndicator" type="DocumentPostingOperationIndicatorType"/>
  <xs:attribute name="DocumentDisclosureCompletionIndicator" type="DocumentDisclosureCompletionIndicatorType" use="required"/>
</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="Max14Text"/>
  <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="Max14Text"/>
  <xs:attribute name="OSContactEMailAddress" type="Max140Text"/>
</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="CUSIP-6"/>
        <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="AppendToPostedDocument"/>
        <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="DocumentDisclosureCompletionIndicatorType">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Partial"/>
    <xs:enumeration value="Complete"/>
  </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="Rule15c212d1iExemptLimitedOffering"/>
  </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="UnderwrittenIndicatorType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="NotUnderwritten"/>
        <xs:enumeration value="PartiallyUnderwritten"/>
    </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="Max25Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="25"/>
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="Max14Text">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="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>
<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>
```