Schema documentation for massdot-itms-events-feed.xsd

february 22, 2019

Table of Contents

Schema(s) 2
Main schema massdot-itms-events-feed.xsd 2
Element(s) 2
Element latlon / Latitude 2
Element latlon / Longitude 2
Element locationPoint / RoadwayName 3
Element locationPoint / Coordinates 3
Element eventLocation / Point 3
Element eventLocation / Range 4
Element eventLocation / Range / Start 5
Element eventLocation / Range / Waypoint 5
Element eventLocation / Range / End 6
Element eventLocation / Area 7
Element eventLocation / Area / AreaType 7
Element eventLocation / Area / AreaValue 8
Element laneInfo / Direction 8
Element laneInfo / LanesAffected 8
Element eventOccurence / StartDateTime 9
Element eventOccurence / EndDateTime 9
Element event / Name 9
Element event / CreatedAt 10
Element event / ConfirmedAt 10
Element event / UpdatedAt 10
Element event / StartDate 10
Element event / Location 11
Element event / Status 11
Element event / LaneInfo 12
Element specialEventSpecifics / SpecialEventCharacteristics 12
Element plannedEvent / EndDate 13
Element plannedEvent / TypeSpecific 13
Element plannedEvent / Occurrences 14
Element plannedEvent / Occurrences / Occurrence 14
Element advisoryWatchWarningCharacteristics / ID 15
Element advisoryWatchWarningCharacteristics / Category 15
Element advisoryWatchWarningCharacteristics / EventType 16
Element advisoryWatchWarningCharacteristics / Location 16
Element advisoryWatchWarningCharacteristics / StartDateTime 16
Element advisoryWatchWarningCharacteristics / EndDateTime 17
Element roadwayTrafficCharacteristics / HasSpeedRestriction 17
Element roadwayTrafficCharacteristics / IsWithinWorkZone 17
Element roadwayTrafficCharacteristics / IsBoreClosureRequired 17
Element roadwayTrafficSpecifics / Subtype 18
Element roadwayTrafficSpecifics / Characteristics 18
Element actsOfNatureSpecifics / Characteristics 19
Element unplannedEvent / CategorySpecific 20
Element EventsFeed 20
Element EventsFeed / UpdateTimestamp 21
Element EventsFeed / Events 21
Element EventsFeed / Events / PlannedEvent 22
Element EventsFeed / Events / UnplannedEvent 24
Simple Type(s) 26
Simple Type eventStatus 26
Simple Type areaEventType 26
Simple Type plannedEventType 27
Simple Type constructionMaintenanceType 27
Simple Type specialEventType 28
Simple Type stadiumArenaEventType 28
Simple Type outdoorEventType 29
Simple Type athleticEventType 29
Simple Type unplannedEventCategory 29

Simple Type roadwayTrafficType 30
Simple Type roadwayTrafficFireSubtype 30
Simple Type roadwayTrafficRoadwayDamageSubtype 30
Simple Type roadwayTrafficRoadwayObstructionSubtype 31
Simple Type actsOfNatureType 31
Complex Type(s) 32
Complex Type latlon 32
Complex Type locationPoint 32
Complex Type eventLocation 33
Complex Type laneInfo 34
Complex Type eventOccurence 34
Complex Type event 35
Complex Type constructionMaintenanceSpecifics 36
Complex Type specialEventSpecifics 36
Complex Type plannedEvent 38
Complex Type advisoryWatchWarningCharacteristics 40
Complex Type roadwayTrafficCharacteristics 41
Complex Type roadwayTrafficSpecifics 41
Complex Type actsOfNatureSpecifics 42
Complex Type unplannedEvent 43
Attribute(s) 44
Attribute constructionMaintenanceSpecifics / @subtype 44
Attribute specialEventSpecifics / @subtype 44
Attribute plannedEvent / @type 45
Attribute roadwayTrafficSpecifics / @type 45
Attribute actsOfNatureSpecifics / @type 45
Attribute unplannedEvent / @category 46

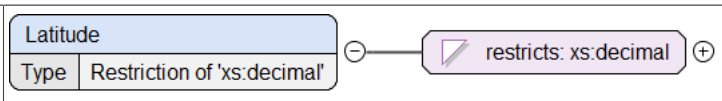
Schema(s)

Main schema massdot-itms-events-feed.xsd

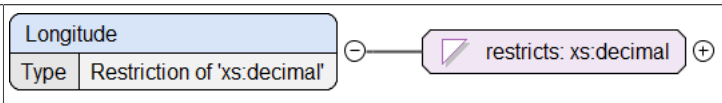
Properties	attribute form default:	unqualified
	element form default:	unqualified

Element(s)

Element latlon / Latitude

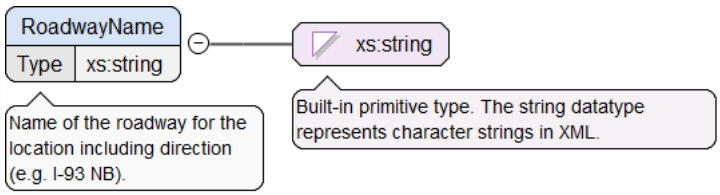
Diagram	
Type	restriction of xs:decimal
Properties	content: simple
Facets	maxInclusive 90 minInclusive -90
Source	<xs:element name="Latitude"> <xs:simpleType> <xs:restriction base="xs:decimal"> <xs:minInclusive value="-90"/> <xs:maxInclusive value="90"/> </xs:restriction> </xs:simpleType> </xs:element>

Element latlon / Longitude

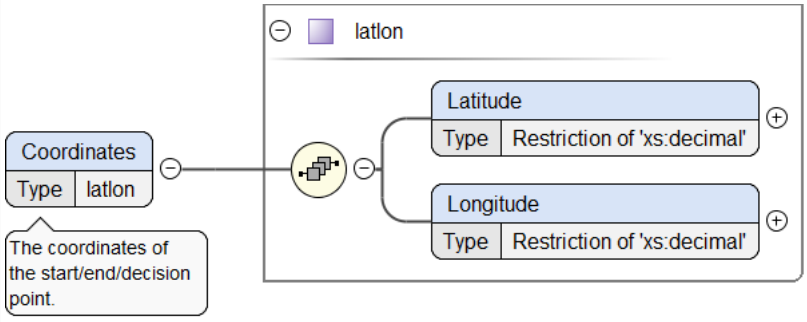
Diagram	
Type	restriction of xs:decimal
Properties	content: simple

Facets	maxInclusive 180 minInclusive -180
Source	<xs:element name="Longitude"> <xs:simpleType> <xs:restriction base="xs:decimal"> <xs:minInclusive value="-180"/> <xs:maxInclusive value="180"/> </xs:restriction> </xs:simpleType> </xs:element>

Element locationPoint / RoadwayName

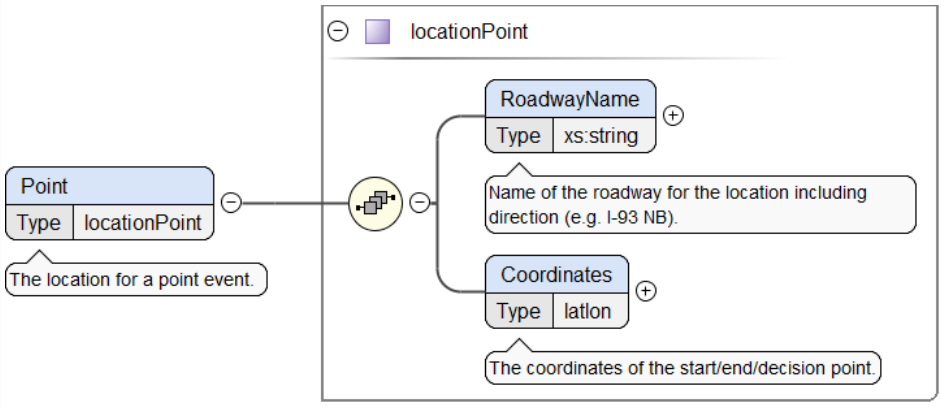
Annotations	Name of the roadway for the location including direction (e.g. I-93 NB).
Diagram	
Type	xs:string
Properties	content: simple
Source	<xs:element name="RoadwayName" type="xs:string"> <xs:annotation> <xs:documentation>Name of the roadway for the location including direction (e.g. I-93 NB).</ xs:documentation> </xs:annotation> </xs:element>

Element locationPoint / Coordinates

Annotations	The coordinates of the start/end/decision point.
Diagram	
Type	latlon
Properties	content: complex
Model	Latitude , Longitude
Children	Latitude, Longitude
Instance	<Coordinates> <Latitude>{1,1}</Latitude> <Longitude>{1,1}</Longitude> </Coordinates>
Source	<xs:element name="Coordinates" type="latlon"> <xs:annotation> <xs:documentation>The coordinates of the start/end/decision point.</xs:documentation> </xs:annotation> </xs:element>

Element eventLocation / Point

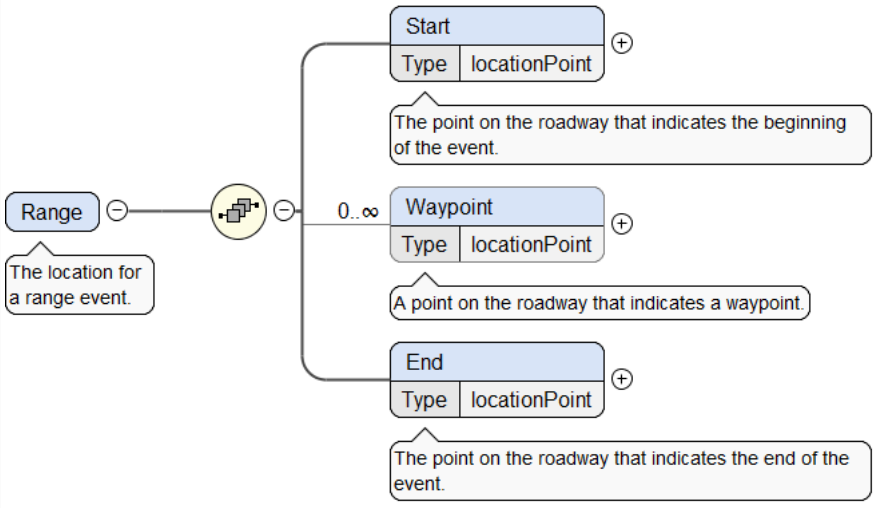
Annotations	The location for a point event.

Diagram	
Type	locationPoint
Properties	content: complex
Model	RoadwayName , Coordinates
Children	Coordinates, RoadwayName

Instance	`<Point>`
	`  <RoadwayName>{1,1}</RoadwayName>`
	`  <Coordinates>{1,1}</Coordinates>`
	`</Point>`

Source	`<xs:element name="Point" type="locationPoint">`
	`  <xs:annotation>`
	`  <xs:documentation>The location for a point event.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element eventLocation / Range

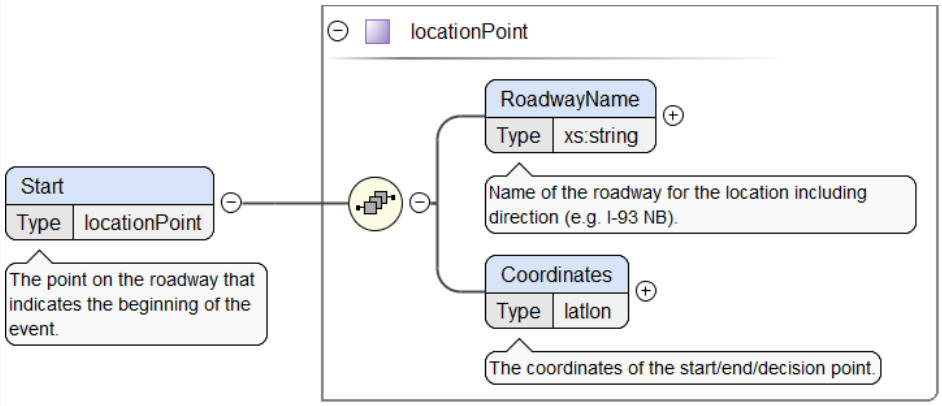
Annotations	The location for a range event.
Diagram	
Properties	content: complex
Model	Start , Waypoint* , End
Children	End, Start, Waypoint

Instance	`<Range>`
	`  <Start>{1,1}</Start>`
	`  <Waypoint>{0,unbounded}</Waypoint>`
	`  <End>{1,1}</End>`
	`</Range>`

Source	`<xs:element name="Range">`
	`  <xs:annotation>`
	`  <xs:documentation>The location for a range event.</xs:documentation>`
	`  </xs:annotation>`
	`  <xs:complexType>`
	`  <xs:sequence>`
	`  <xs:element name="Start" type="locationPoint">`

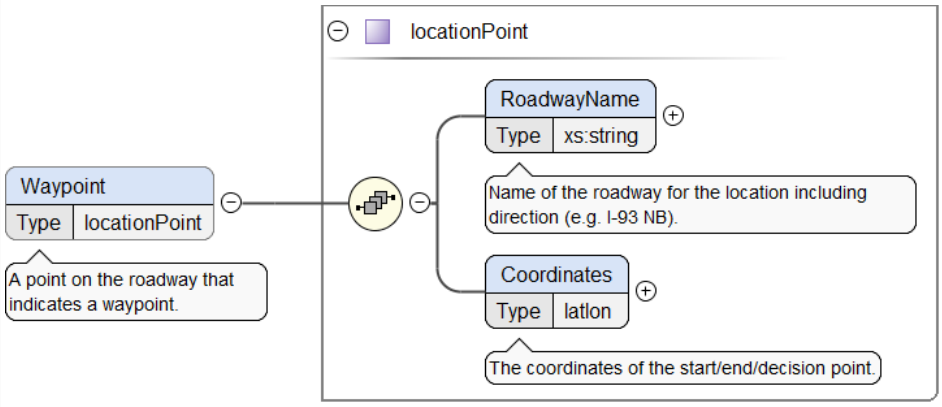
```
        <xs:annotation>
          <xs:documentation>The point on the roadway that indicates the beginning of the event.</
xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Waypoint" type="locationPoint" minOccurs="0" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>A point on the roadway that indicates a waypoint.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="End" type="locationPoint">
        <xs:annotation>
          <xs:documentation>The point on the roadway that indicates the end of the event.</
xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Element eventLocation / Range / Start

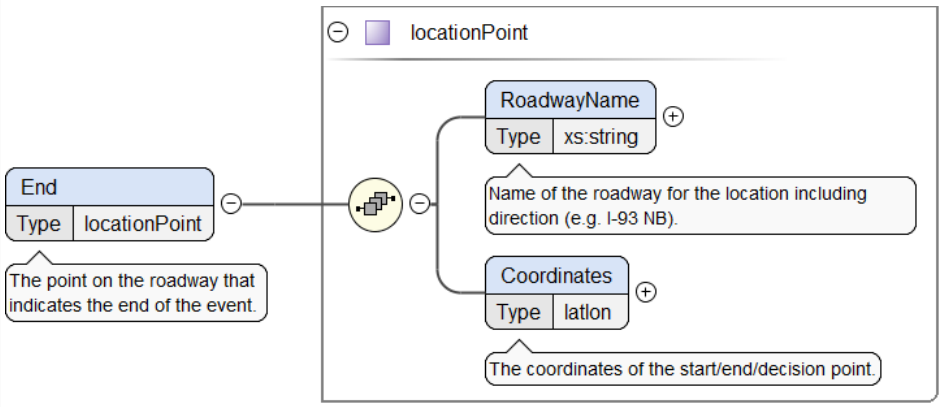
Annotations	The point on the roadway that indicates the beginning of the event.
Diagram	
Type	locationPoint
Properties	content: complex
Model	RoadwayName , Coordinates
Children	Coordinates, RoadwayName
Instance	<Start> <RoadwayName>{1,1}</RoadwayName> <Coordinates>{1,1}</Coordinates> </Start>
Source	<xs:element name="Start" type="locationPoint"> <xs:annotation> <xs:documentation>The point on the roadway that indicates the beginning of the event.</xs:documentation> </xs:annotation> </xs:element>

Element eventLocation / Range / Waypoint

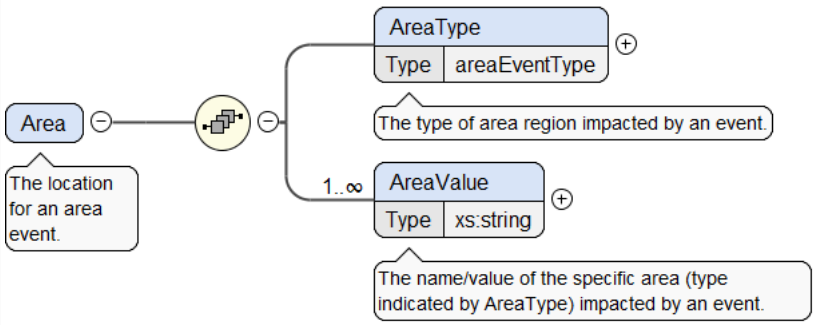
Annotations	A point on the roadway that indicates a waypoint.

Diagram	
Type	locationPoint
Properties	content: complex minOccurs: 0 maxOccurs: unbounded
Model	RoadwayName , Coordinates
Children	Coordinates, RoadwayName
Instance	<Waypoint> <RoadwayName>{1,1}</RoadwayName> <Coordinates>{1,1}</Coordinates> </Waypoint>
Source	<xs:element name="Waypoint" type="locationPoint" minOccurs="0" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>A point on the roadway that indicates a waypoint.</xs:documentation> </xs:annotation> </xs:element>

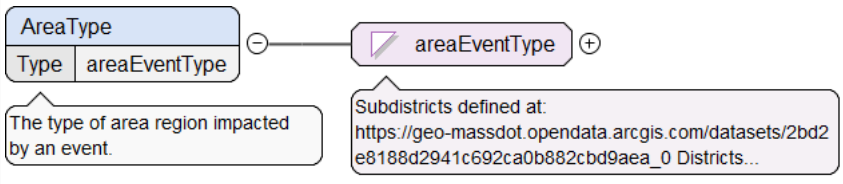
Element eventLocation / Range / End

Annotations	The point on the roadway that indicates the end of the event.
Diagram	
Type	locationPoint
Properties	content: complex
Model	RoadwayName , Coordinates
Children	Coordinates, RoadwayName
Instance	<End> <RoadwayName>{1,1}</RoadwayName> <Coordinates>{1,1}</Coordinates> </End>
Source	<xs:element name="End" type="locationPoint"> <xs:annotation> <xs:documentation>The point on the roadway that indicates the end of the event.</ xs:documentation> </xs:annotation> </xs:element>

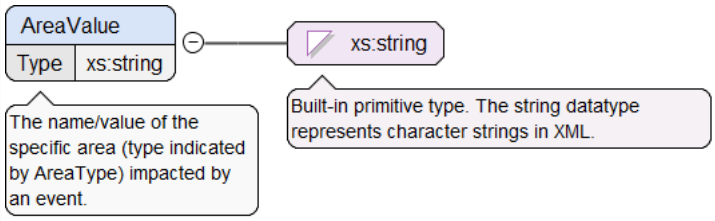
Element eventLocation / Area

Annotations	The location for an area event.
Diagram	
Properties	content: complex
Model	AreaType , AreaValue+
Children	AreaType, AreaValue
Instance	<Area> <AreaType>{1,1}</AreaType> <AreaValue>{1,unbounded}</AreaValue> </Area>
Source	<xs:element name="Area"> <xs:annotation> <xs:documentation>The location for an area event.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element name="AreaType" type="areaEventType"> <xs:annotation> <xs:documentation>The type of area region impacted by an event.</xs:documentation> </xs:annotation> </xs:element> <xs:element name="AreaValue" type="xs:string" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>The name/value of the specific area (type indicated by AreaType) impacted by an event.</xs:documentation> </xs:annotation> </xs:element> </xs:sequence> </xs:complexType> </xs:element>

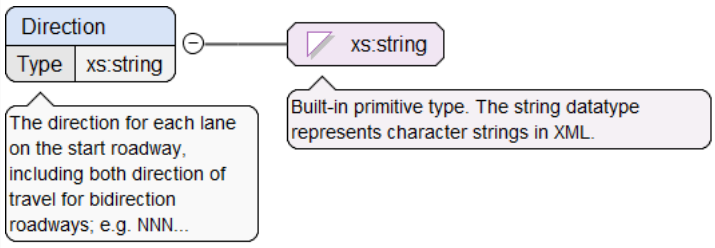
Element eventLocation / Area / AreaType

Annotations	The type of area region impacted by an event.	
Diagram		
Type	areaEventType	
Properties	content:	simple
Facets	enumeration	TOWN
	enumeration	COUNTY
	enumeration	SUBDISTRICT
	enumeration	DISTRICT
	enumeration	STATEWIDE
Source	<xs:element name="AreaType" type="areaEventType"> <xs:annotation> <xs:documentation>The type of area region impacted by an event.</xs:documentation> </xs:annotation> </xs:element>	

Element eventLocation / Area / AreaValue

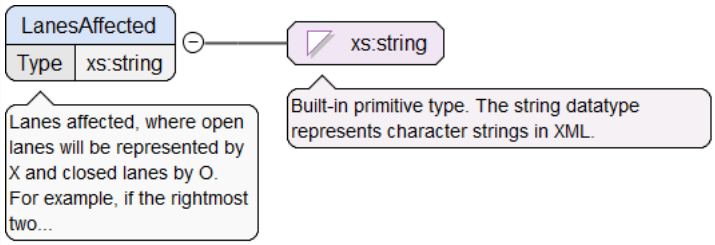
Annotations	The name/value of the specific area (type indicated by AreaType) impacted by an event.
Diagram	
Type	xs:string
Properties	content: simple maxOccurs: unbounded
Source	<xs:element name="AreaValue" type="xs:string" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>The name/value of the specific area (type indicated by AreaType) impacted by an event.</xs:documentation> </xs:annotation> </xs:element>

Element laneInfo / Direction

Annotations	The direction for each lane on the start roadway, including both direction of travel for bidirection roadways; e.g. NNN from three northbound lanes and SSSNNN for three southbound lanes and three northbound lanes. The convention is: - For northbound lanes, the first letter indicates the leftmost travel lane, which is closest to the median; - For southbound lanes, the first letter indicates the rightmost lane, which is closest to entry and exit ramps; - For eastbound lanes, the first letter indicates the leftmost travel lane, which is closest to the median; - For westbound lanes, the first letter indicates the rightmost lane, which is closest to entry and exit ramps.
Diagram	
Type	xs:string
Properties	content: simple
Source	<xs:element name="Direction" type="xs:string"> <xs:annotation> <xs:documentation>The direction for each lane on the start roadway, including both direction of travel for bidirection roadways; e.g. NNN from three northbound lanes and SSSNNN for three southbound lanes and three northbound lanes. The convention is: - For northbound lanes, the first letter indicates the leftmost travel lane, which is closest to the median; - For southbound lanes, the first letter indicates the rightmost lane, which is closest to entry and exit ramps; - For eastbound lanes, the first letter indicates the leftmost travel lane, which is closest to the median; - For westbound lanes, the first letter indicates the rightmost lane, which is closest to entry and exit ramps.</xs:documentation> </xs:annotation> </xs:element>

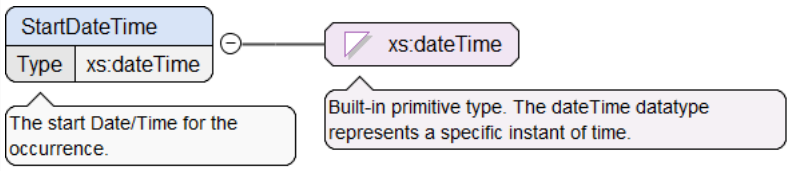
Element laneInfo / LanesAffected

Annotations	Lanes affected, where open lanes will be represented by X and closed lanes by O. For example, if the rightmost two lanes are closed, then the string will be OOOOXX.

Diagram	
Type	xs:string
Properties	content: simple

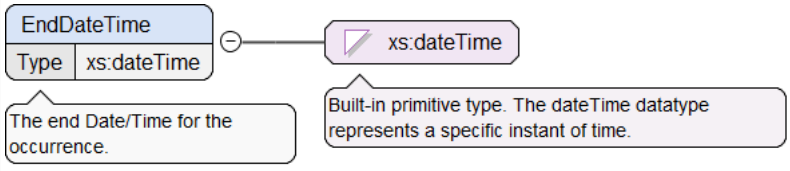
Source	`<xs:element name="LanesAffected" type="xs:string">`
	`  <xs:annotation>`
	`  <xs:documentation>Lanes affected, where open lanes will be represented by X and closed lanes by O. For example, if the rightmost two lanes are closed, then the string will be OOOOXX.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element eventOccurence / StartDateTime

Annotations	The start Date/Time for the occurrence.
Diagram	
Type	xs:dateTime
Properties	content: simple

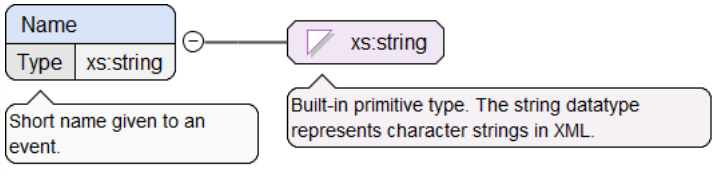
Source	`<xs:element name="StartDateTime" type="xs:dateTime">`
	`  <xs:annotation>`
	`  <xs:documentation>The start Date/Time for the occurrence.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element eventOccurence / EndDateTime

Annotations	The end Date/Time for the occurrence.
Diagram	
Type	xs:dateTime
Properties	content: simple

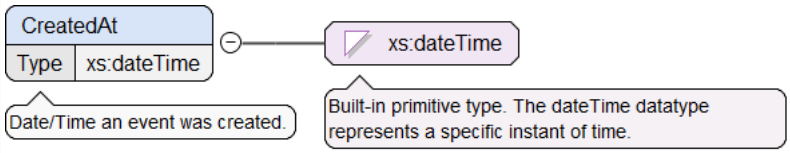
Source	`<xs:element name="EndDateTime" type="xs:dateTime">`
	`  <xs:annotation>`
	`  <xs:documentation>The end Date/Time for the occurrence.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element event / Name

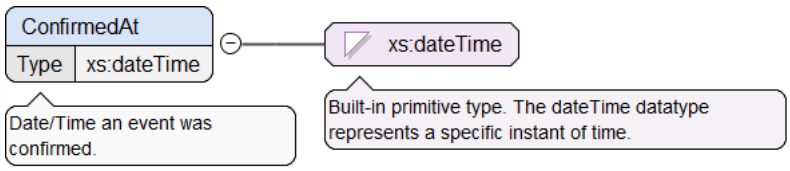
Annotations	Short name given to an event.
Diagram	

Type	xs:string
Properties	content: simple
Source	<xs:element name="Name" type="xs:string"> <xs:annotation> <xs:documentation>Short name given to an event.</xs:documentation> </xs:annotation> </xs:element>

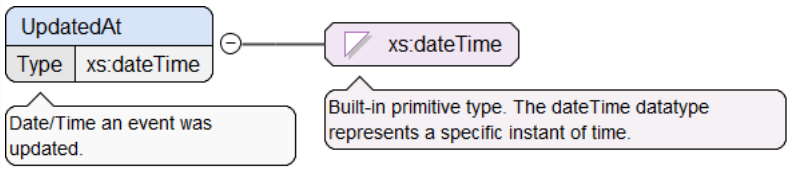
Element event / CreatedAt

Annotations	Date/Time an event was created.
Diagram	
Type	xs:dateTime
Properties	content: simple
Source	<xs:element name="CreatedAt" type="xs:dateTime"> <xs:annotation> <xs:documentation>Date/Time an event was created.</xs:documentation> </xs:annotation> </xs:element>

Element event / ConfirmedAt

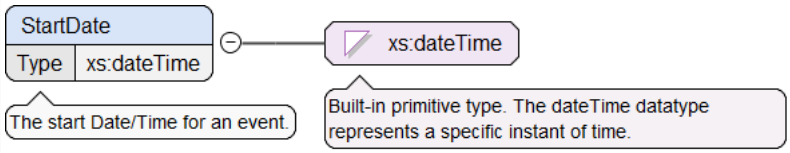
Annotations	Date/Time an event was confirmed.
Diagram	
Type	xs:dateTime
Properties	content: simple
Source	<xs:element name="ConfirmedAt" type="xs:dateTime"> <xs:annotation> <xs:documentation>Date/Time an event was confirmed.</xs:documentation> </xs:annotation> </xs:element>

Element event / UpdatedAt

Annotations	Date/Time an event was updated.
Diagram	
Type	xs:dateTime
Properties	content: simple
Source	<xs:element name="UpdatedAt" type="xs:dateTime"> <xs:annotation> <xs:documentation>Date/Time an event was updated.</xs:documentation> </xs:annotation> </xs:element>

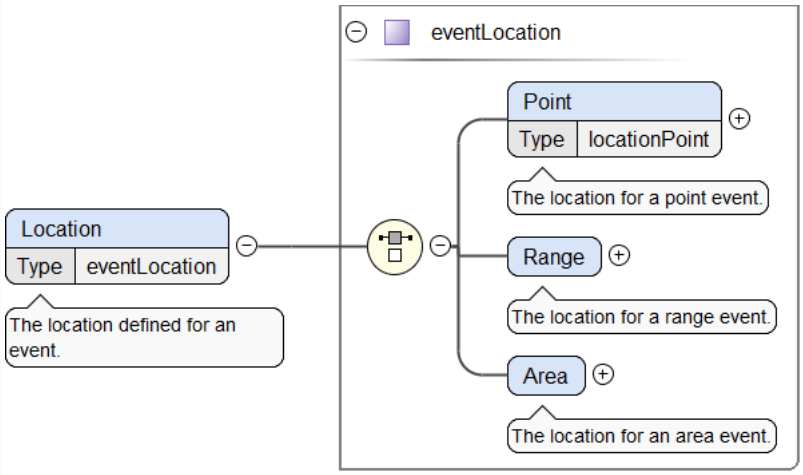
Element event / StartDate

Annotations	The start Date/Time for an event.

Diagram	
Type	xs:dateTime
Properties	content: simple

Source	`<xs:element name="StartDate" type="xs:dateTime">`
	`  <xs:annotation>`
	`  <xs:documentation>The start Date/Time for an event.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

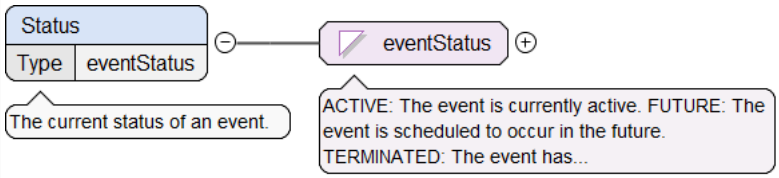
Element event / Location

Annotations	The location defined for an event.
Diagram	
Type	eventLocation
Properties	content: complex
Model	Point | Range | Area
Children	Area, Point, Range

Instance	`<Location>`
	`  <Point>{1,1}</Point>`
	`  <Range>{1,1}</Range>`
	`  <Area>{1,1}</Area>`
	`</Location>`

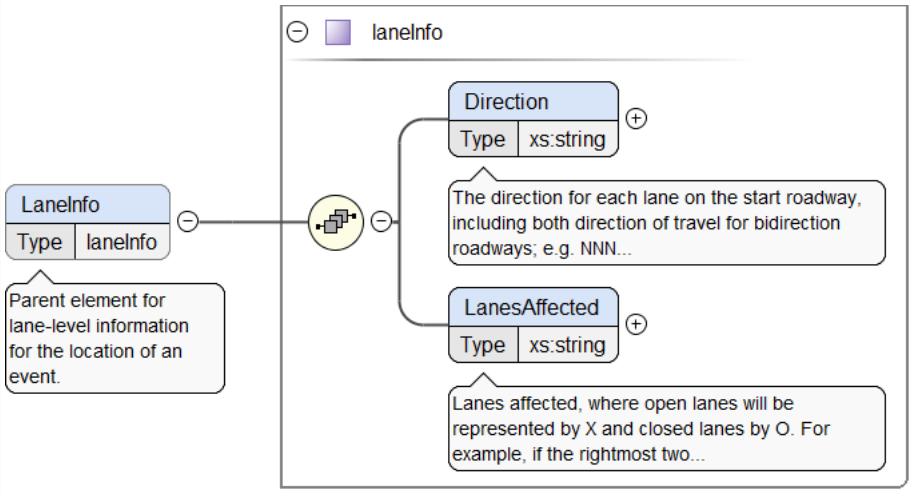
Source	`<xs:element name="Location" type="eventLocation">`
	`  <xs:annotation>`
	`  <xs:documentation>The location defined for an event.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element event / Status

Annotations	The current status of an event.
Diagram	
Type	eventStatus
Properties	content: simple
Facets	enumeration ACTIVE

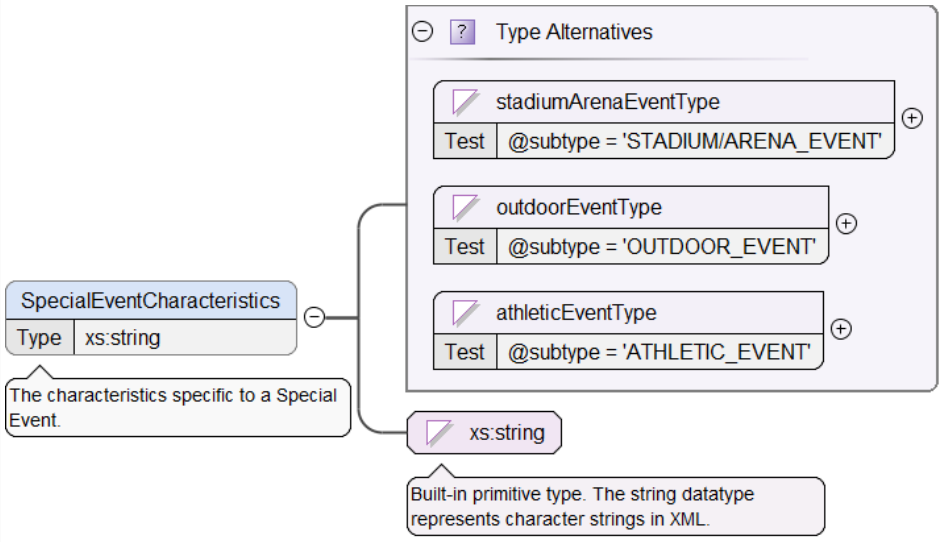
	enumeration	FUTURE
	enumeration	TERMINATED
Source	<xs:element name="Status" type="eventStatus"> <xs:annotation> <xs:documentation>The current status of an event.</xs:documentation> </xs:annotation> </xs:element>	

Element event / LaneInfo

Annotations	Parent element for lane-level information for the location of an event.
Diagram	
Type	laneInfo
Properties	content: complex minOccurs: 0
Model	Direction , LanesAffected
Children	Direction, LanesAffected
Instance	<LaneInfo> <Direction>{1,1}</Direction> <LanesAffected>{1,1}</LanesAffected> </LaneInfo>
Source	<xs:element name="LaneInfo" type="laneInfo" minOccurs="0"> <xs:annotation> <xs:documentation>Parent element for lane-level information for the location of an event.</xs:documentation> </xs:annotation> </xs:element>

Element specialEventSpecifics / SpecialEventCharacteristics

Annotations	The characteristics specific to a Special Event.

Diagram	
Type	xs:string
Properties	content: simple minOccurs: 0

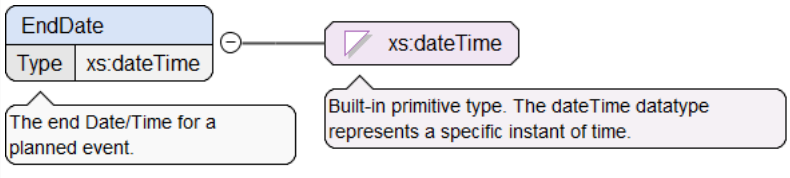
Type Alternatives

Type	Test	XPath default namespace
stadiumArenaEventType	@subtype = 'STADIUM/ARENA_EVENT'	
outdoorEventType	@subtype = 'OUTDOOR_EVENT'	
athleticEventType	@subtype = 'ATHLETIC_EVENT'	
xs:anyAtomicType *[Default Type]*		

Source

```
<xs:element name="SpecialEventCharacteristics" type="xs:string" minOccurs="0">
  <xs:annotation>
    <xs:documentation>The characteristics specific to a Special Event.</xs:documentation>
  </xs:annotation>
  <xs:alternative test="@subtype = 'STADIUM/ARENA_EVENT'" type="stadiumArenaEventType"/>
  <xs:alternative test="@subtype = 'OUTDOOR_EVENT'" type="outdoorEventType"/>
  <xs:alternative test="@subtype = 'ATHLETIC_EVENT'" type="athleticEventType"/>
</xs:element>
```

Element plannedEvent / EndDate

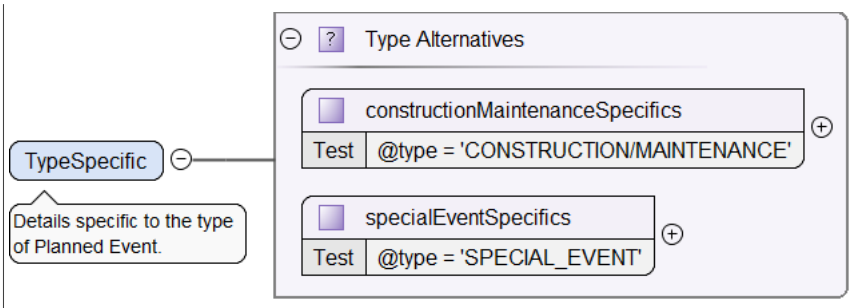
Annotations	The end Date/Time for a planned event.
Diagram	
Type	xs:dateTime
Properties	content: simple

Source

```
<xs:element name="EndDate" type="xs:dateTime">
  <xs:annotation>
    <xs:documentation>The end Date/Time for a planned event.</xs:documentation>
  </xs:annotation>
</xs:element>
```

Element plannedEvent / TypeSpecific

Annotations	Details specific to the type of Planned Event.

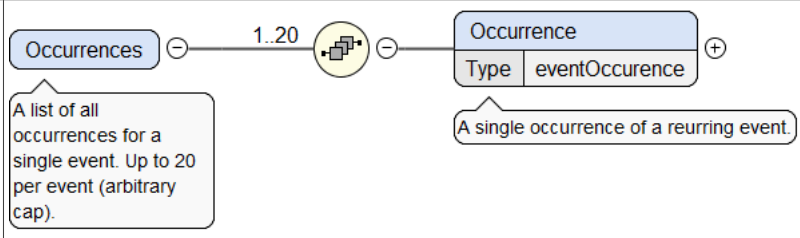
Diagram	

Type Alternatives	Type	Test	XPath default namespace
	constructionMaintenanceSpecifics	@type = 'CONSTRUCTION/MAINTENANCE'	
	specialEventSpecifics	@type = 'SPECIAL_EVENT'	

Source

```
<xs:element name="TypeSpecific">
  <xs:annotation>
    <xs:documentation>Details specific to the type of Planned Event.</xs:documentation>
  </xs:annotation>
  <xs:alternative test="@type = 'CONSTRUCTION/MAINTENANCE'" type="constructionMaintenanceSpecifics"/
>
  <xs:alternative test="@type = 'SPECIAL_EVENT'" type="specialEventSpecifics"/>
</xs:element>
```

Element plannedEvent / Occurrences

Annotations	A list of all occurrences for a single event. Up to 20 per event (arbitrary cap).
Diagram	
Properties	content: complex
Model	Occurrence
Children	Occurrence

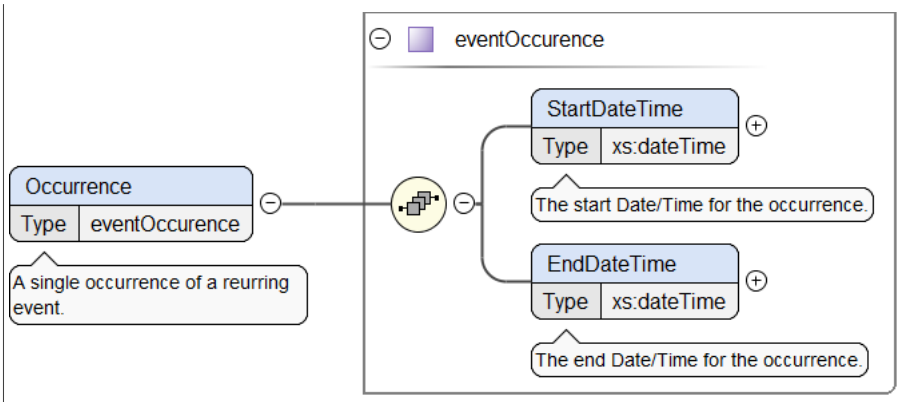
Instance	`<Occurrences>`
	`  <Occurrence>{1,1}</Occurrence>`
	`</Occurrences>`

Source

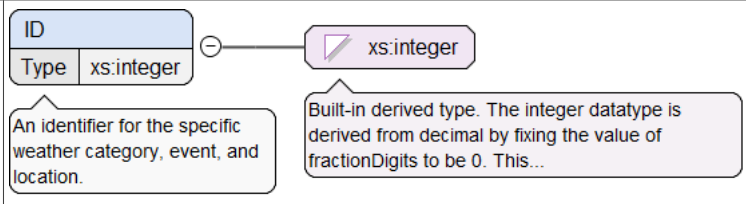
```
<xs:element name="Occurrences">
  <xs:annotation>
    <xs:documentation>A list of all occurrences for a single event. Up to 20 per event (arbitrary
 cap).</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence maxOccurs="20">
      <xs:element name="Occurrence" type="eventOccurence">
        <xs:annotation>
          <xs:documentation>A single occurrence of a reurring event.</xs:documentation>
        </xs:annotation>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Element plannedEvent / Occurrences / Occurrence

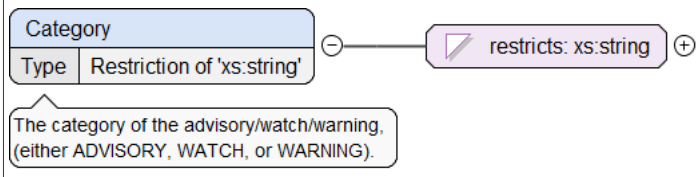
Annotations	A single occurrence of a reurring event.

Diagram	
Type	eventOccurence
Properties	content: complex
Model	StartDateTime , EndDateTime
Children	EndDateTime, StartDateTime
Instance	<Occurrence> <StartDateTime>{1,1}</StartDateTime> <EndDateTime>{1,1}</EndDateTime> </Occurrence>
Source	<xs:element name="Occurrence" type="eventOccurence"> <xs:annotation> <xs:documentation>A single occurrence of a reurring event.</xs:documentation> </xs:annotation> </xs:element>

Element advisoryWatchWarningCharacteristics / ID

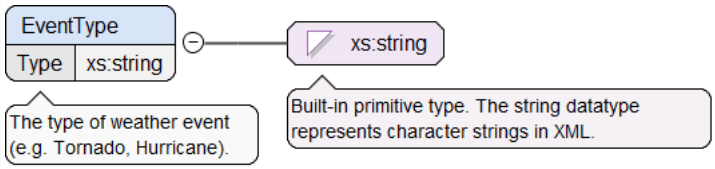
Annotations	An identifier for the specific weather category, event, and location.
Diagram	
Type	xs:integer
Properties	content: simple
Source	<xs:element name="ID" type="xs:integer"> <xs:annotation> <xs:documentation>An identifier for the specific weather category, event, and location.</ xs:documentation> </xs:annotation> </xs:element>

Element advisoryWatchWarningCharacteristics / Category

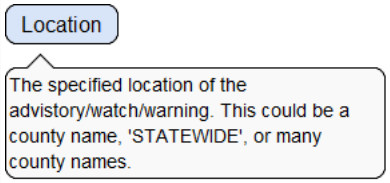
Annotations	The category of the advisory/watch/warning, (either ADVISORY, WATCH, or WARNING).	
Diagram		
Type	restriction of xs:string	
Properties	content: simple	
Facets	enumeration	ADVISORY
	enumeration	WATCH

	enumeration WARNING
Source	<xs:element name="Category"> <xs:annotation> <xs:documentation>The category of the advisory/watch/warning, (either ADVISORY, WATCH, or WARNING).</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:string"> <xs:enumeration value="ADVISORY"/> <xs:enumeration value="WATCH"/> <xs:enumeration value="WARNING"/> </xs:restriction> </xs:simpleType> </xs:element>

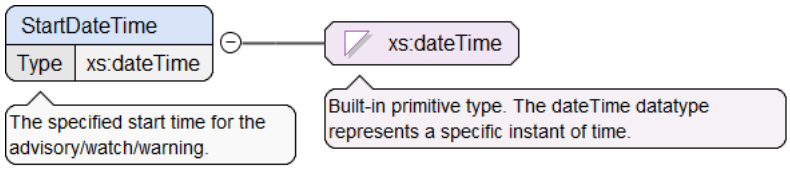
Element advisoryWatchWarningCharacteristics / EventType

Annotations	The type of weather event (e.g. Tornado, Hurricane).
Diagram	
Type	xs:string
Properties	content: simple
Source	<xs:element name="EventType" type="xs:string"> <xs:annotation> <xs:documentation>The type of weather event (e.g. Tornado, Hurricane).</xs:documentation> </xs:annotation> </xs:element>

Element advisoryWatchWarningCharacteristics / Location

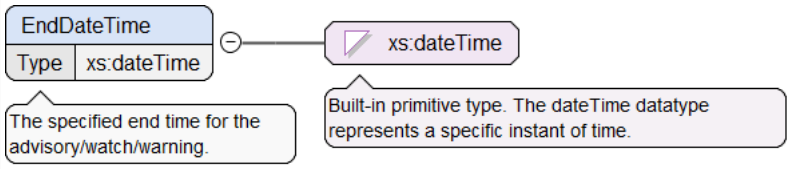
Annotations	The specified location of the advistory/watch/warning. This could be a county name, 'STATEWIDE', or many county names.
Diagram	
Properties	maxOccurs: unbounded
Source	<xs:element name="Location" maxOccurs="unbounded"> <xs:annotation> <xs:documentation>The specified location of the advistory/watch/warning. This could be a county name, 'STATEWIDE', or many county names.</xs:documentation> </xs:annotation> </xs:element>

Element advisoryWatchWarningCharacteristics / StartDateTime

Annotations	The specified start time for the advisory/watch/warning.
Diagram	
Type	xs:dateTime
Properties	content: simple
Source	<xs:element name="StartDateTime" type="xs:dateTime">

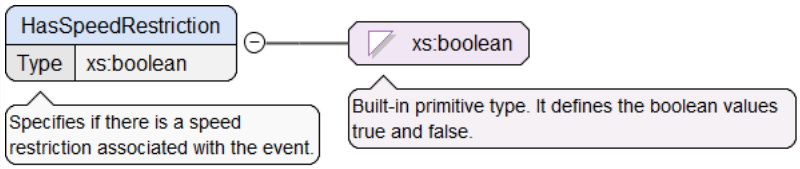
```
  <xs:annotation>
    <xs:documentation>The specified start time for the advisory/watch/warning.</xs:documentation>
  </xs:annotation>
</xs:element>
```

Element advisoryWatchWarningCharacteristics / EndDateTime

Annotations	The specified end time for the advisory/watch/warning.
Diagram	
Type	xs:dateTime
Properties	content: simple

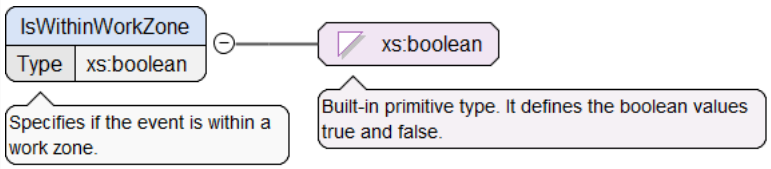
Source	`<xs:element name="EndDateTime" type="xs:dateTime">`
	`  <xs:annotation>`
	`  <xs:documentation>The specified end time for the advisory/watch/warning.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element roadwayTrafficCharacteristics / HasSpeedRestriction

Annotations	Specifies if there is a speed restriction associated with the event.
Diagram	
Type	xs:boolean
Properties	content: simple

Source	`<xs:element name="HasSpeedRestriction" type="xs:boolean">`
	`  <xs:annotation>`
	`  <xs:documentation>Specifies if there is a speed restriction associated with the event.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

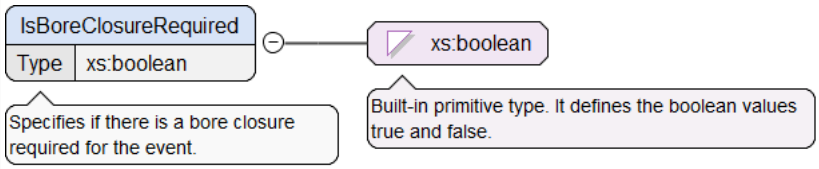
Element roadwayTrafficCharacteristics / IsWithinWorkZone

Annotations	Specifies if the event is within a work zone.
Diagram	
Type	xs:boolean
Properties	content: simple

Source	`<xs:element name="IsWithinWorkZone" type="xs:boolean">`
	`  <xs:annotation>`
	`  <xs:documentation>Specifies if the event is within a work zone.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

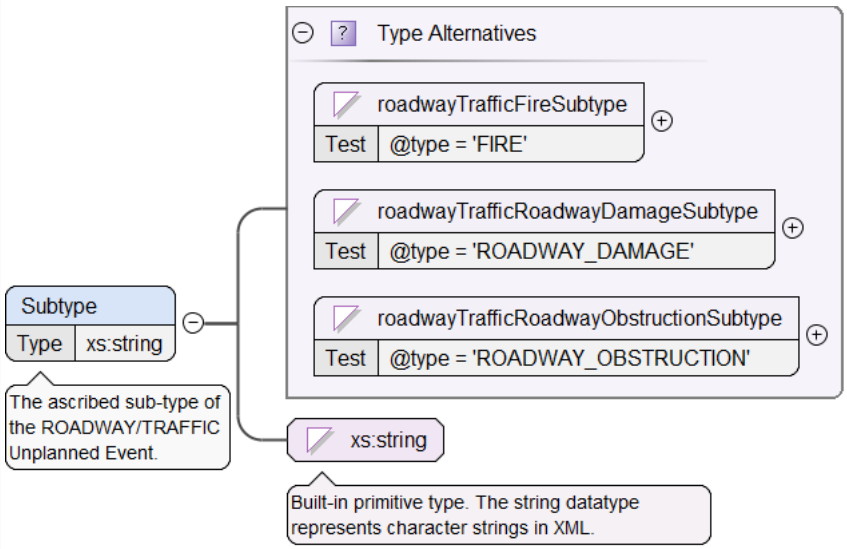
Element roadwayTrafficCharacteristics / IsBoreClosureRequired

Annotations	Specifies if there is a bore closure required for the event.

Diagram	
Type	xs:boolean
Properties	content: simple

Source	`<xs:element name="IsBoreClosureRequired" type="xs:boolean">`
	`  <xs:annotation>`
	`  <xs:documentation>Specifies if there is a bore closure required for the event.</xs:documentation>`
	`  </xs:annotation>`
	`</xs:element>`

Element roadwayTrafficSpecifics / Subtype

Annotations	The ascribed sub-type of the ROADWAY/TRAFFIC Unplanned Event.
Diagram	
Type	xs:string
Properties	content: simple

Type Alternatives

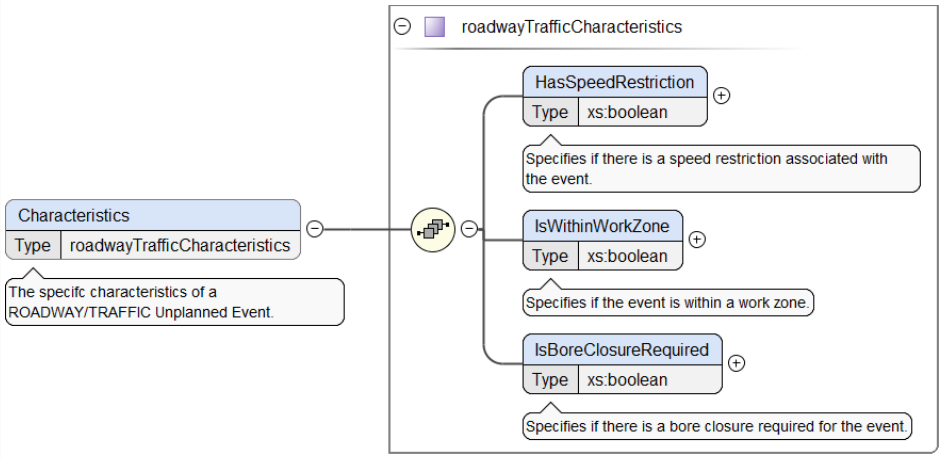
Type	Test	XPath default namespace
roadwayTrafficFireSubtype	@type = 'FIRE'	
roadwayTrafficRoadwayDamageSubtype	@type = 'ROADWAY_DAMAGE'	
roadwayTrafficRoadwayObstructionSubtype	@type = 'ROADWAY_OBSTRUCTION'	
xs:anyAtomicType *[Default Type]*		

Source

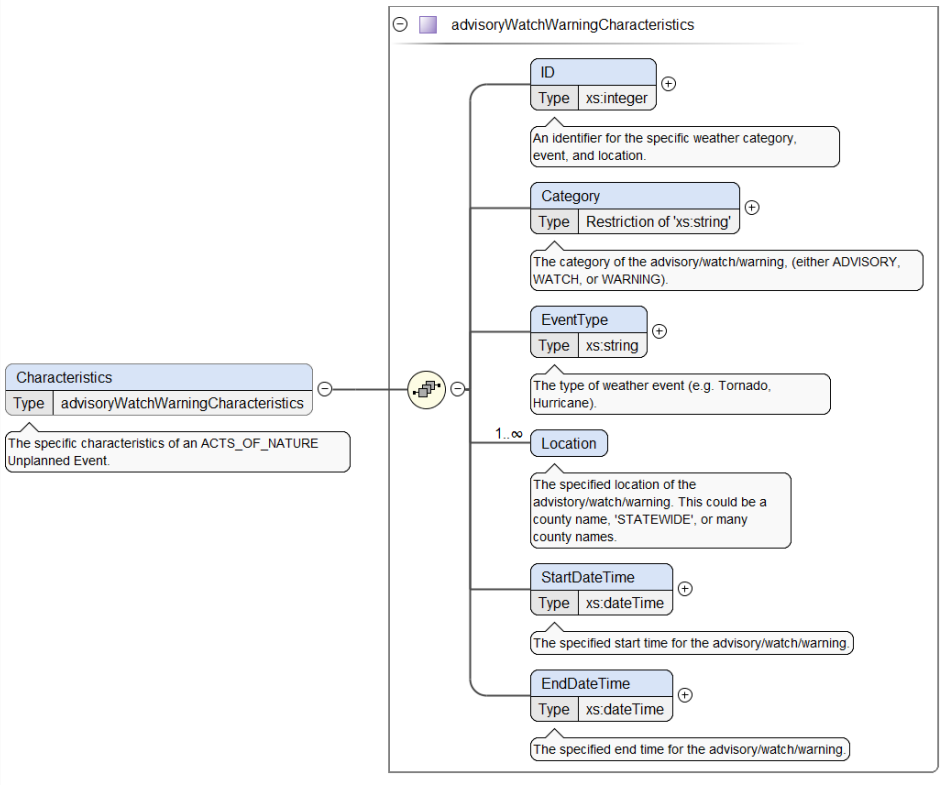
```
<xs:element name="Subtype" type="xs:string">
  <xs:annotation>
    <xs:documentation>The ascribed sub-type of the ROADWAY/TRAFFIC Unplanned Event.</
xs:documentation>
  </xs:annotation>
  <xs:alternative test="@type = 'FIRE'" type="roadwayTrafficFireSubtype"/>
  <xs:alternative test="@type = 'ROADWAY_DAMAGE'" type="roadwayTrafficRoadwayDamageSubtype"/>
  <xs:alternative test="@type = 'ROADWAY_OBSTRUCTION'"
 type="roadwayTrafficRoadwayObstructionSubtype"/>
</xs:element>
```

Element roadwayTrafficSpecifics / Characteristics

Annotations	The specifc characteristics of a ROADWAY/TRAFFIC Unplanned Event.

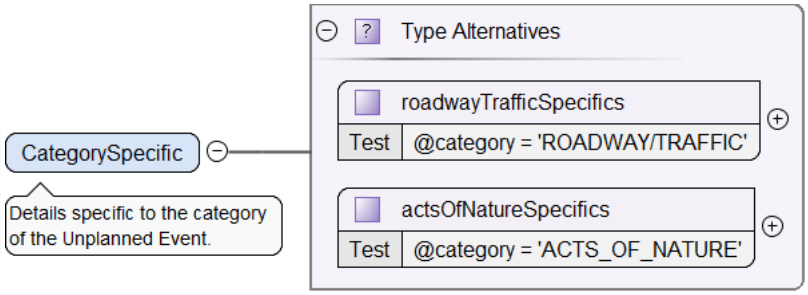
Diagram	
Type	roadwayTrafficCharacteristics
Properties	content: complex minOccurs: 0
Model	HasSpeedRestriction , IsWithinWorkZone , IsBoreClosureRequired
Children	HasSpeedRestriction, IsBoreClosureRequired, IsWithinWorkZone
Instance	<Characteristics> <HasSpeedRestriction>{1,1}</HasSpeedRestriction> <IsWithinWorkZone>{1,1}</IsWithinWorkZone> <IsBoreClosureRequired>{1,1}</IsBoreClosureRequired> </Characteristics>
Source	<xs:element name="Characteristics" type="roadwayTrafficCharacteristics" minOccurs="0"> <xs:annotation> <xs:documentation>The specifc characteristics of a ROADWAY/TRAFFIC Unplanned Event.</ xs:documentation> </xs:annotation> </xs:element>

Element actsOfNatureSpecifics / Characteristics

Annotations	The specific characteristics of an ACTS_OF_NATURE Unplanned Event.
Diagram	

Type	advisoryWatchWarningCharacteristics
Properties	content: complex minOccurs: 0
Model	ID , Category , EventType , Location+ , StartDateTime , EndDateTime
Children	Category, EndDateTime, EventType, ID, Location, StartDateTime
Instance	<Characteristics> <ID>{1,1}</ID> <Category>{1,1}</Category> <EventType>{1,1}</EventType> <Location>{1,unbounded}</Location> <StartDateTime>{1,1}</StartDateTime> <EndDateTime>{1,1}</EndDateTime> </Characteristics>
Source	<xs:element name="Characteristics" type="advisoryWatchWarningCharacteristics" minOccurs="0"> <xs:annotation> <xs:documentation>The specific characteristics of an ACTS_OF_NATURE Unplanned Event.</ xs:documentation> </xs:annotation> </xs:element>

Element unplannedEvent / CategorySpecific

Annotations	Details specific to the category of the Unplanned Event.
Diagram	

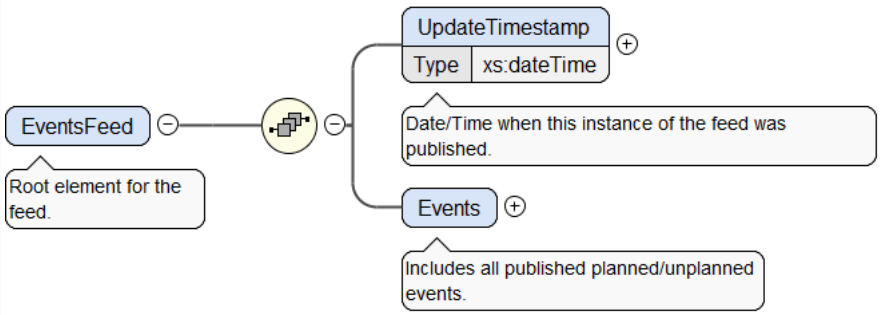
Type Alternatives

Type	Test	XPath default namespace
roadwayTrafficSpecifics	@category = 'ROADWAY/TRAFFIC'	
actsOfNatureSpecifics	@category = 'ACTS_OF_NATURE'	

Source

```
<xs:element name="CategorySpecific">
  <xs:annotation>
    <xs:documentation>Details specific to the category of the Unplanned Event.</xs:documentation>
  </xs:annotation>
  <xs:alternative test="@category = 'ROADWAY/TRAFFIC'" type="roadwayTrafficSpecifics"/>
  <xs:alternative test="@category = 'ACTS_OF_NATURE'" type="actsOfNatureSpecifics"/>
</xs:element>
```

Element EventsFeed

Annotations	Root element for the feed.
Diagram	
Properties	content: complex
Model	UpdateTimestamp , Events
Children	Events, UpdateTimestamp
Instance	<EventsFeed> <UpdateTimestamp>{1,1}</UpdateTimestamp>

```
  <Events>{1,1}</Events>
</EventsFeed>
```

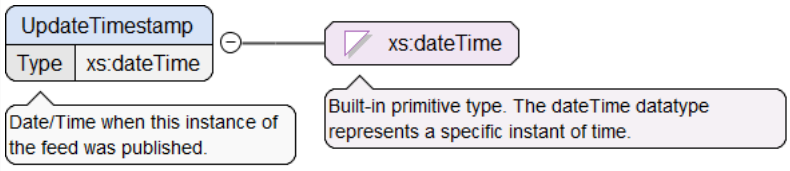
Source

```
<xs:element name="EventsFeed">
  <xs:annotation>
    <xs:documentation>Root element for the feed.</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="UpdateTimestamp" type="xs:dateTime">
        <xs:annotation>
          <xs:documentation>Date/Time when this instance of the feed was published.</
xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="Events">
        <xs:annotation>
          <xs:documentation>Includes all published planned/unplanned events.</xs:documentation>
        </xs:annotation>
        <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
            <xs:element name="PlannedEvent" type="plannedEvent">
              <xs:annotation>
                <xs:documentation>A planned event that affects the roadway - e.g. planned
 construction work.</xs:documentation>
              </xs:annotation>
            </xs:element>
            <xs:element name="UnplannedEvent" type="unplannedEvent">
              <xs:annotation>
                <xs:documentation>An unplanned event that is affecting the roadway - e.g. a crash.</
xs:documentation>
              </xs:annotation>
            </xs:element>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Element EventsFeed / UpdateTimestamp

Annotations: Date/Time when this instance of the feed was published.

Diagram



Type: xs:dateTime

Properties: content: simple

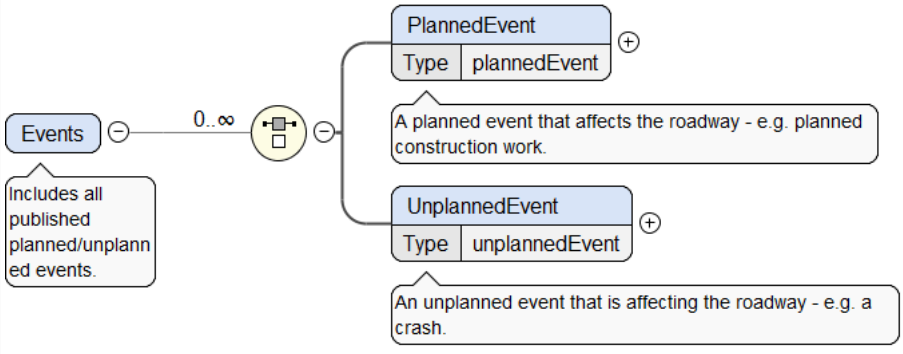
Source

```
<xs:element name="UpdateTimestamp" type="xs:dateTime">
  <xs:annotation>
    <xs:documentation>Date/Time when this instance of the feed was published.</xs:documentation>
  </xs:annotation>
</xs:element>
```

Element EventsFeed / Events

Annotations: Includes all published planned/unplanned events.

Diagram

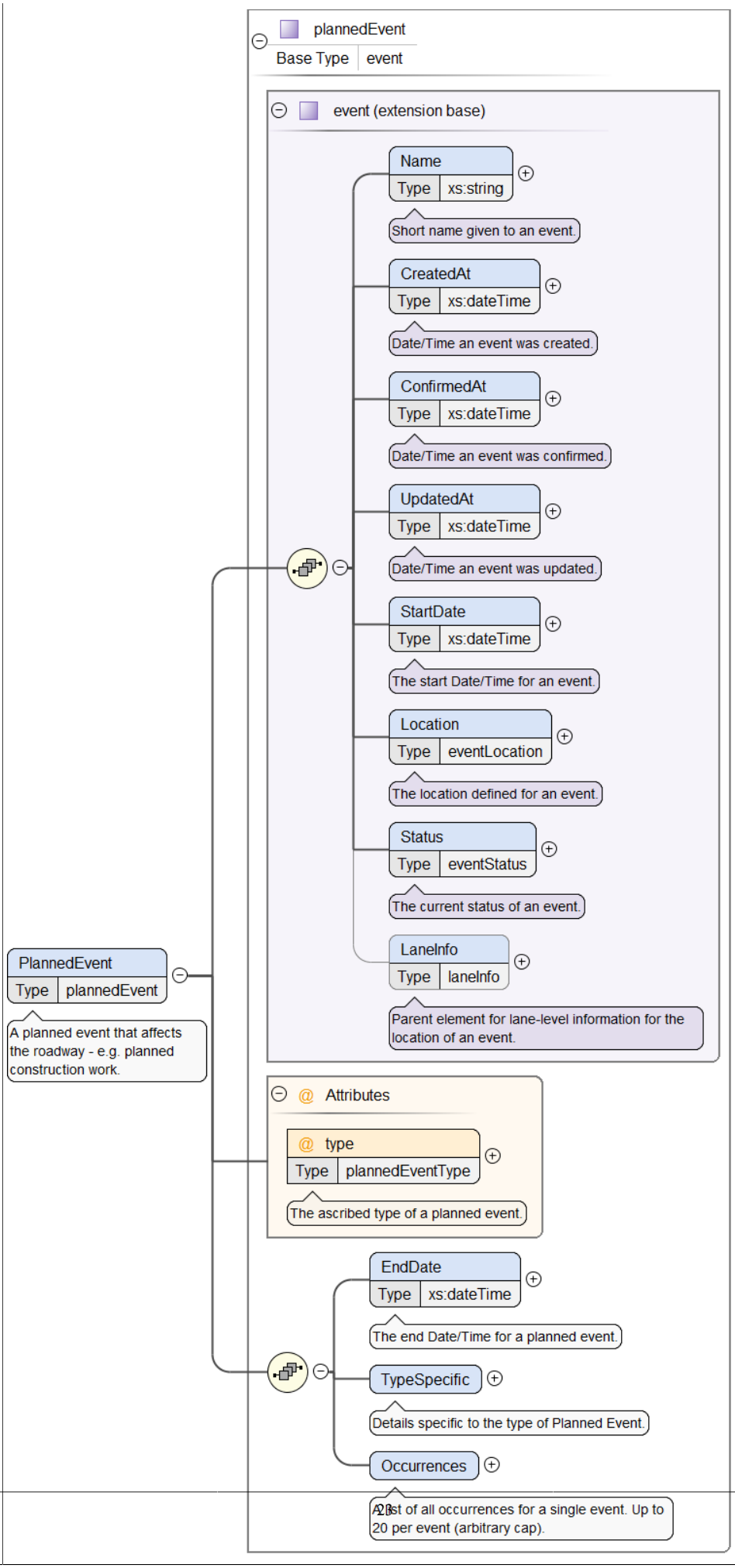


Properties	content: complex
Model	PlannedEvent | UnplannedEvent
Children	PlannedEvent, UnplannedEvent
Instance	<Events> <PlannedEvent type="">{1,1}</PlannedEvent> <UnplannedEvent category="">{1,1}</UnplannedEvent> </Events>
Source	<xs:element name="Events"> <xs:annotation> <xs:documentation>Includes all published planned/unplanned events.</xs:documentation> </xs:annotation> <xs:complexType> <xs:choice minOccurs="0" maxOccurs="unbounded"> <xs:element name="PlannedEvent" type="plannedEvent"> <xs:annotation> <xs:documentation>A planned event that affects the roadway - e.g. planned construction work.</xs:documentation> </xs:annotation> </xs:element> <xs:element name="UnplannedEvent" type="unplannedEvent"> <xs:annotation> <xs:documentation>An unplanned event that is affecting the roadway - e.g. a crash.</xs:documentation> </xs:annotation> </xs:element> </xs:choice> </xs:complexType> </xs:element>

Element EventsFeed / Events / PlannedEvent

Annotations	A planned event that affects the roadway - e.g. planned construction work.

Diagram


plannedEvent
Base Type event
event (extension base)
Name
Type xs:string
Short name given to an event.
CreatedAt
Type xs:dateTime
Date/Time an event was created.
ConfirmedAt
Type xs:dateTime
Date/Time an event was confirmed.
UpdatedAt
Type xs:dateTime
Date/Time an event was updated.
StartDate
Type xs:dateTime
The start Date/Time for an event.
Location
Type eventLocation
The location defined for an event.
Status
Type eventStatus
The current status of an event.
LaneInfo
Type laneInfo
Parent element for lane-level information for the location of an event.
@ Attributes
@ type
Type plannedEventType
The ascribed type of a planned event.
EndDate
Type xs:dateTime
The end Date/Time for a planned event.
TypeSpecific
Details specific to the type of Planned Event.
Occurrences
A list of all occurrences for a single event. Up to 20 per event (arbitrary cap).
PlannedEvent
Type plannedEvent
A planned event that affects the roadway - e.g. planned construction work.

Type	plannedEvent
Type hierarchy	• event • plannedEvent
Properties	content: complex
Model	Name , CreatedAt , ConfirmedAt , UpdatedAt , StartDate , Location , Status , LaneInfo{0,1} , EndDate , TypeSpecific , Occurrences
Children	ConfirmedAt, CreatedAt, EndDate, LaneInfo, Location, Name, Occurrences, StartDate, Status, TypeSpecific, UpdatedAt

Instance

```
<PlannedEvent type="">
  <Name>{1,1}</Name>
  <CreatedAt>{1,1}</CreatedAt>
  <ConfirmedAt>{1,1}</ConfirmedAt>
  <UpdatedAt>{1,1}</UpdatedAt>
  <StartDate>{1,1}</StartDate>
  <Location>{1,1}</Location>
  <Status>{1,1}</Status>
  <LaneInfo>{0,1}</LaneInfo>
  <EndDate>{1,1}</EndDate>
  <TypeSpecific>{1,1}</TypeSpecific>
  <Occurrences>{1,1}</Occurrences>
</PlannedEvent>
```

Attributes

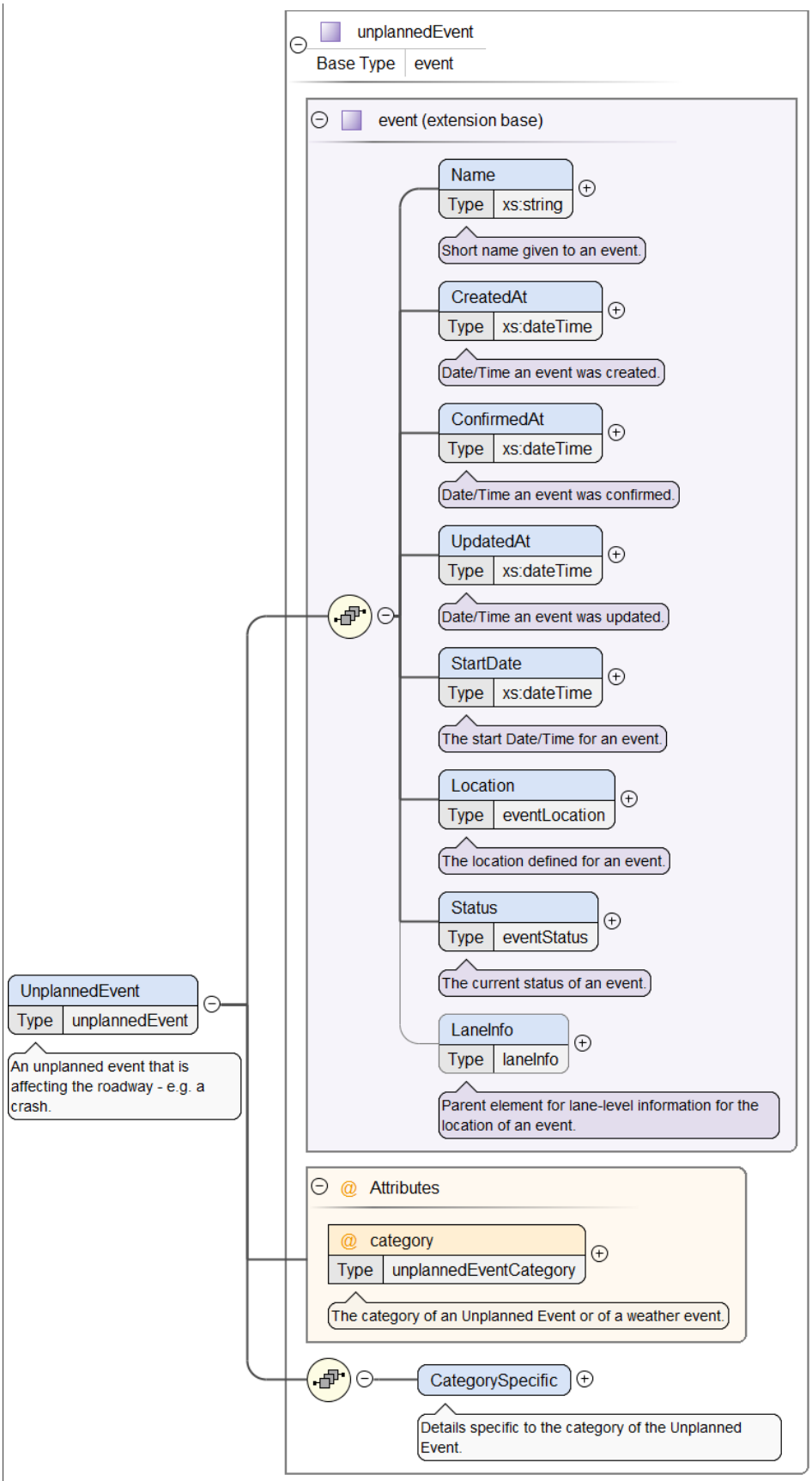
QName	Type	Use	
type	plannedEventType	required	
	The ascribed type of a planned event.		

Source

```
<xs:element name="PlannedEvent" type="plannedEvent">
  <xs:annotation>
    <xs:documentation>A planned event that affects the roadway - e.g. planned construction work.</
xs:documentation>
  </xs:annotation>
</xs:element>
```

Element EventsFeed / Events / UnplannedEvent

Annotations	An unplanned event that is affecting the roadway - e.g. a crash.

Diagram	
Type	unplannedEvent
Type hierar-chy	• event • unplannedEvent

Properties	content: complex
Model	Name , CreatedAt , ConfirmedAt , UpdatedAt , StartDate , Location , Status , LaneInfo{0,1} , CategorySpecific
Children	CategorySpecific, ConfirmedAt, CreatedAt, LaneInfo, Location, Name, StartDate, Status, UpdatedAt

Instance

```
<UnplannedEvent category="">
  <Name>{1,1}</Name>
  <CreatedAt>{1,1}</CreatedAt>
  <ConfirmedAt>{1,1}</ConfirmedAt>
  <UpdatedAt>{1,1}</UpdatedAt>
  <StartDate>{1,1}</StartDate>
  <Location>{1,1}</Location>
  <Status>{1,1}</Status>
  <LaneInfo>{0,1}</LaneInfo>
  <CategorySpecific>{1,1}</CategorySpecific>
</UnplannedEvent>
```

Attributes

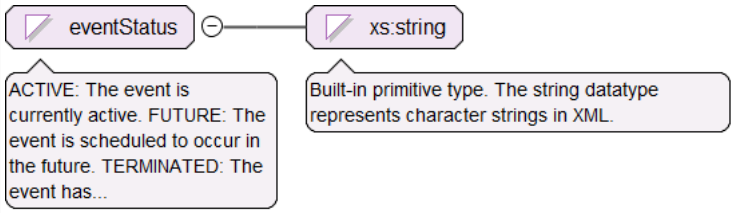
QName	Type	Use	
category	unplannedEventCategory	required	
	The category of an Unplanned Event or of a weather event.		

Source

```
<xs:element name="UnplannedEvent" type="unplannedEvent">
  <xs:annotation>
    <xs:documentation>An unplanned event that is affecting the roadway - e.g. a crash.</
xs:documentation>
  </xs:annotation>
</xs:element>
```

Simple Type(s)

Simple Type `eventStatus`

Annotations	ACTIVE: The event is currently active. FUTURE: The event is scheduled to occur in the future. TERMINATED: The event has been terminated.
Diagram	
Type	restriction of xs:string

Facets

enumeration	ACTIVE
enumeration	FUTURE
enumeration	TERMINATED

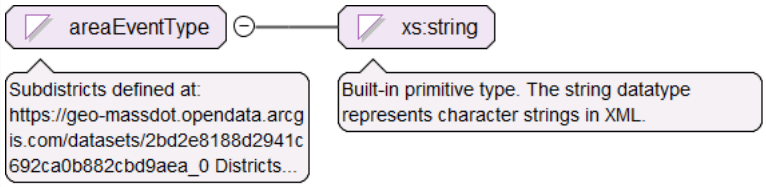
Used by	Element event/Status

Source

```
<xs:simpleType name="eventStatus">
  <xs:annotation>
    <xs:documentation>ACTIVE: The event is currently active. FUTURE: The event is scheduled to occur
 in the future. TERMINATED: The event has been terminated.</xs:documentation>
  </xs:annotation>
  <xs:restriction base="xs:string">
    <xs:enumeration value="ACTIVE"/>
    <xs:enumeration value="FUTURE"/>
    <xs:enumeration value="TERMINATED"/>
  </xs:restriction>
</xs:simpleType>
```

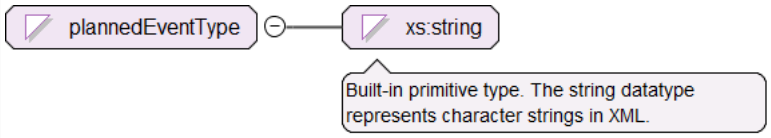
Simple Type `areaEventType`

Annotations	Subdistricts defined at: https://geo-massdot.opendata.arcgis.com/datasets/2bd2e8188d2941c692ca0b882cbd9aea_0 Districts defined at: https://geo-massdot.opendata.arcgis.com/datasets/3399393a72f3424082dc5974f001cad8_0

Diagram	
Type	restriction of xs:string
Facets	enumeration TOWN enumeration COUNTY enumeration SUBDISTRICT enumeration DISTRICT enumeration STATEWIDE
Used by	Element eventLocation/Area/AreaType

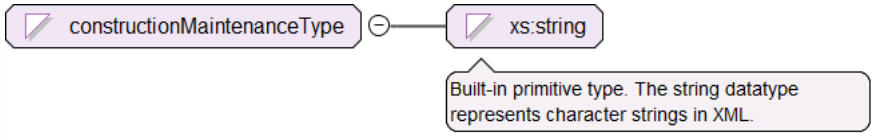
Source	`<xs:simpleType name="areaEventType">`
	`<xs:annotation>`
	`<xs:documentation>Subdistricts defined at: https://geo-massdot.opendata.arcgis.com/datasets/2bd2e8188d2941c692ca0b882cbd9aea_0 Districts defined at: https://geo-massdot.opendata.arcgis.com/datasets/3399393a72f3424082dc5974f001cad8_0</xs:documentation>`
	`</xs:annotation>`
	`<xs:restriction base="xs:string">`
	`<xs:enumeration value="TOWN"/>`
	`<xs:enumeration value="COUNTY"/>`
	`<xs:enumeration value="SUBDISTRICT"/>`
	`<xs:enumeration value="DISTRICT"/>`
	`<xs:enumeration value="STATEWIDE"/>`
	`</xs:restriction>`
	`</xs:simpleType>`

Simple Type `plannedEventType`

Diagram	
Type	restriction of xs:string
Facets	enumeration CONSTRUCTION/MAINTENANCE enumeration SPECIAL_EVENT
Used by	Attribute plannedEvent/@type

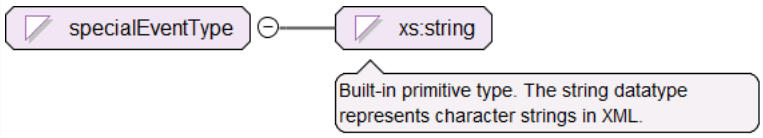
Source	`<xs:simpleType name="plannedEventType">`
	`<xs:restriction base="xs:string">`
	`<xs:enumeration value="CONSTRUCTION/MAINTENANCE"/>`
	`<xs:enumeration value="SPECIAL_EVENT"/>`
	`</xs:restriction>`
	`</xs:simpleType>`

Simple Type `constructionMaintenanceType`

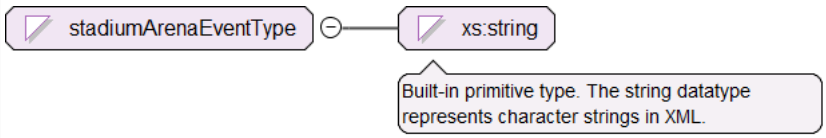
Diagram	
Type	restriction of xs:string
Facets	enumeration ROADWAY_ACTIVITY enumeration BRIDGE_ACTIVITY enumeration TUNNEL_ACTIVITY enumeration FACILITY_ACTIVITY enumeration UTILITY_ACTIVITY

Used by	Attribute	constructionMaintenanceSpecifics/@subtype
Source	<xs:simpleType name="constructionMaintenanceType"> <xs:restriction base="xs:string"> <xs:enumeration value="ROADWAY_ACTIVITY"/> <xs:enumeration value="BRIDGE_ACTIVITY"/> <xs:enumeration value="TUNNEL_ACTIVITY"/> <xs:enumeration value="FACILITY_ACTIVITY"/> <xs:enumeration value="UTILITY_ACTIVITY"/> </xs:restriction> </xs:simpleType>	

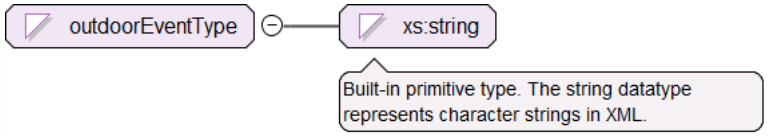
Simple Type `specialEventType`

Diagram		
Type	restriction of xs:string	
Facets	enumeration	STADIUM/ARENA_EVENT
	enumeration	OUTDOOR_EVENT
	enumeration	VIP_VISIT
	enumeration	ATHLETIC_EVENT
	enumeration	FUNERAL_PROCESSION
	enumeration	TRAINING/DRILL
	enumeration	OTHER
Used by	Attribute	specialEventSpecifics/@subtype
Source	<xs:simpleType name="specialEventType"> <xs:restriction base="xs:string"> <xs:enumeration value="STADIUM/ARENA_EVENT"/> <xs:enumeration value="OUTDOOR_EVENT"/> <xs:enumeration value="VIP_VISIT"/> <xs:enumeration value="ATHLETIC_EVENT"/> <xs:enumeration value="FUNERAL_PROCESSION"/> <xs:enumeration value="TRAINING/DRILL"/> <xs:enumeration value="OTHER"/> </xs:restriction> </xs:simpleType>	

Simple Type `stadiumArenaEventType`

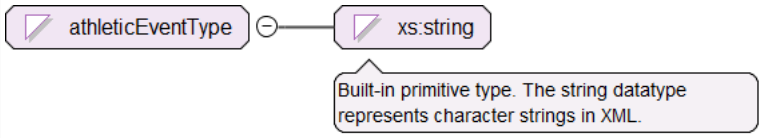
Diagram		
Type	restriction of xs:string	
Facets	enumeration	PAVILION_EVENT
	enumeration	GILLETTE_STADIUM_EVENT
	enumeration	BCEC_EVENT
	enumeration	OTHER
Source	<xs:simpleType name="stadiumArenaEventType"> <xs:restriction base="xs:string"> <xs:enumeration value="PAVILION_EVENT"/> <xs:enumeration value="GILLETTE_STADIUM_EVENT"/> <xs:enumeration value="BCEC_EVENT"/> <xs:enumeration value="OTHER"/> </xs:restriction> </xs:simpleType>	

Simple Type `outdoorEventType`

Diagram	
Type	restriction of xs:string
Facets	enumeration AIRSHOW enumeration FIREWORKS_DISPLAY enumeration MOVIE_FILMING enumeration GENERAL_OUTDOOR_EVENT

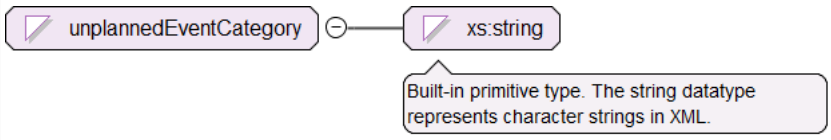
Source	`<xs:simpleType name="outdoorEventType">`
	`  <xs:restriction base="xs:string">`
	`  <xs:enumeration value="AIRSHOW"/>`
	`  <xs:enumeration value="FIREWORKS_DISPLAY"/>`
	`  <xs:enumeration value="MOVIE_FILMING"/>`
	`  <xs:enumeration value="GENERAL_OUTDOOR_EVENT"/>`
	`  </xs:restriction>`
	`</xs:simpleType>`

Simple Type `athleticEventType`

Diagram	
Type	restriction of xs:string
Facets	enumeration MARATHON enumeration ROAD_RACE enumeration BIKE_RACE enumeration CHARITY_WALK

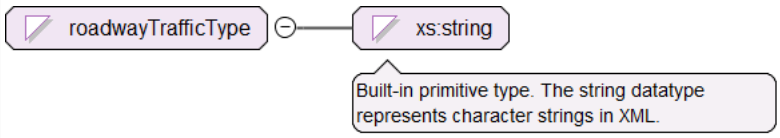
Source	`<xs:simpleType name="athleticEventType">`
	`  <xs:restriction base="xs:string">`
	`  <xs:enumeration value="MARATHON"/>`
	`  <xs:enumeration value="ROAD_RACE"/>`
	`  <xs:enumeration value="BIKE_RACE"/>`
	`  <xs:enumeration value="CHARITY_WALK"/>`
	`  </xs:restriction>`
	`</xs:simpleType>`

Simple Type `unplannedEventCategory`

Diagram	
Type	restriction of xs:string
Facets	enumeration ROADWAY/TRAFFIC enumeration ACTS_OF_NATURE
Used by	Attribute unplannedEvent/@category

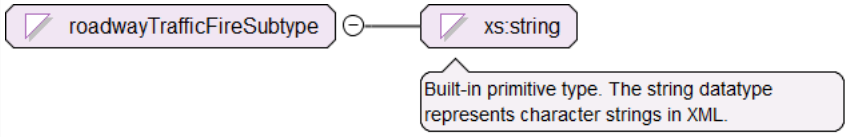
Source	`<xs:simpleType name="unplannedEventCategory">`
	`  <xs:restriction base="xs:string">`
	`  <xs:enumeration value="ROADWAY/TRAFFIC"/>`
	`  <xs:enumeration value="ACTS_OF_NATURE"/>`
	`  </xs:restriction>`
	`</xs:simpleType>`

Simple Type `roadwayTrafficType`

Diagram	
Type	restriction of xs:string
Facets	enumeration CRASH enumeration DISABLED_MOTOR_VEHICLE enumeration FIRE enumeration ROADWAY_DAMAGE enumeration ROADWAY_OBSTRUCTION enumeration CONGESTION enumeration GENERAL_ROADWAY/TRAFFIC
Used by	Attribute roadwayTrafficSpecifics/@type

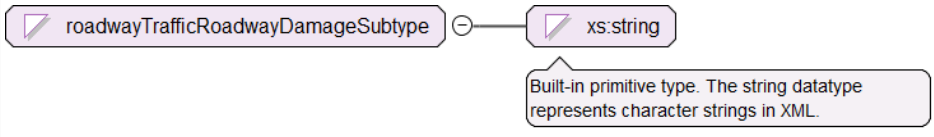
Source	`<xs:simpleType name="roadwayTrafficType">`
	`  <xs:restriction base="xs:string">`
	`  <xs:enumeration value="CRASH"/>`
	`  <xs:enumeration value="DISABLED_MOTOR_VEHICLE"/>`
	`  <xs:enumeration value="FIRE"/>`
	`  <xs:enumeration value="ROADWAY_DAMAGE"/>`
	`  <xs:enumeration value="ROADWAY_OBSTRUCTION"/>`
	`  <xs:enumeration value="CONGESTION"/>`
	`  <xs:enumeration value="GENERAL_ROADWAY/TRAFFIC"/>`
	`  </xs:restriction>`
	`</xs:simpleType>`

Simple Type `roadwayTrafficFireSubtype`

Diagram	
Type	restriction of xs:string
Facets	enumeration VEHICLE_FIRE enumeration FACILITY_FIRE_AFFEC- TING_ROADWAY enumeration BRUSH/FOREST_FIRE

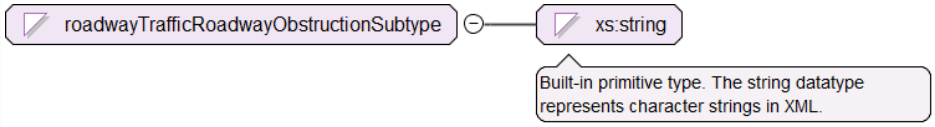
Source	`<xs:simpleType name="roadwayTrafficFireSubtype">`
	`  <xs:restriction base="xs:string">`
	`  <xs:enumeration value="VEHICLE_FIRE"/>`
	`  <xs:enumeration value="FACILITY_FIRE_AFFECTING_ROADWAY"/>`
	`  <xs:enumeration value="BRUSH/FOREST_FIRE"/>`
	`  </xs:restriction>`
	`</xs:simpleType>`

Simple Type `roadwayTrafficRoadwayDamageSubtype`

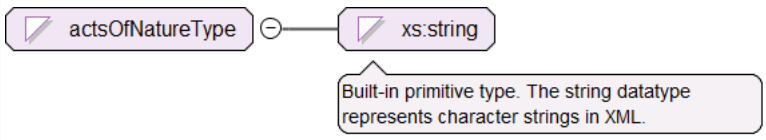
Diagram	
Type	restriction of xs:string
Facets	enumeration STORM_DAMAGE enumeration ROAD_SURFACE_COLLAPSE enumeration POTHOLE

	enumeration	WATER_DAMAGE
	enumeration	SEWER_DAMAGE
	enumeration	GAS_LEAK
Source	<xs:simpleType name="roadwayTrafficRoadwayDamageSubtype"> <xs:restriction base="xs:string"> <xs:enumeration value="STORM_DAMAGE"/> <xs:enumeration value="ROAD_SURFACE_COLLAPSE"/> <xs:enumeration value="POTHOLE"/> <xs:enumeration value="WATER_DAMAGE"/> <xs:enumeration value="SEWER_DAMAGE"/> <xs:enumeration value="GAS_LEAK"/> </xs:restriction> </xs:simpleType>	

Simple Type roadwayTrafficRoadwayObstructionSubtype

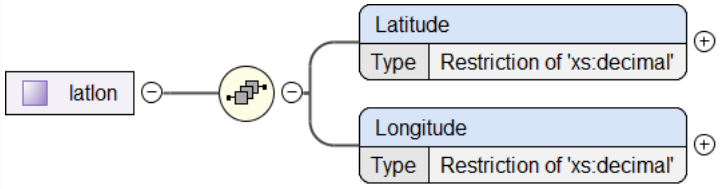
Diagram		
Type	restriction of xs:string	
Facets	enumeration	FALLEN_TREES
	enumeration	DOWNED_SIGN
	enumeration	DOWNED_UTILITY_POLE
	enumeration	DOWNED_POWER_LINE
	enumeration	DOWNED_CABLES
	enumeration	CRASH_INVESTIGATION_WORK
	enumeration	GENERAL_OBSTRUCTION/DE- BRIS
Source	<xs:simpleType name="roadwayTrafficRoadwayObstructionSubtype"> <xs:restriction base="xs:string"> <xs:enumeration value="FALLEN_TREES"/> <xs:enumeration value="DOWNED_SIGN"/> <xs:enumeration value="DOWNED_UTILITY_POLE"/> <xs:enumeration value="DOWNED_POWER_LINE"/> <xs:enumeration value="DOWNED_CABLES"/> <xs:enumeration value="CRASH_INVESTIGATION_WORK"/> <xs:enumeration value="GENERAL_OBSTRUCTION/DEBRIS"/> </xs:restriction> </xs:simpleType>	

Simple Type actsOfNatureType

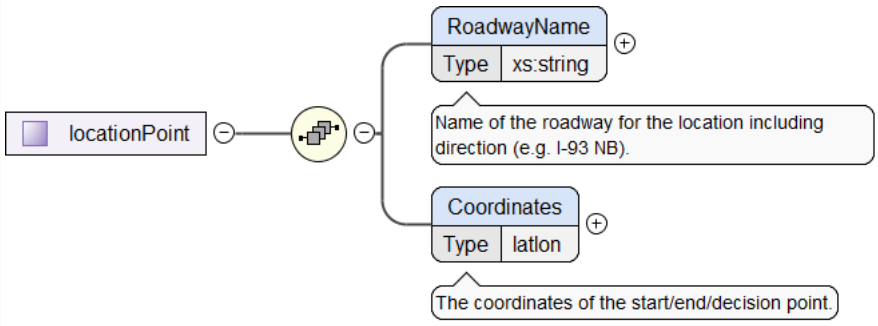
Diagram		
Type	restriction of xs:string	
Facets	enumeration	LOCAL_WEATHER_EVENT
	enumeration	ADVISORY/WATCH/WARNING
Used by	Attribute	actsOfNatureSpecifics/@type
Source	<xs:simpleType name="actsOfNatureType"> <xs:restriction base="xs:string"> <xs:enumeration value="LOCAL_WEATHER_EVENT"/> <xs:enumeration value="ADVISORY/WATCH/WARNING"/> </xs:restriction> </xs:simpleType>	

Complex Type(s)

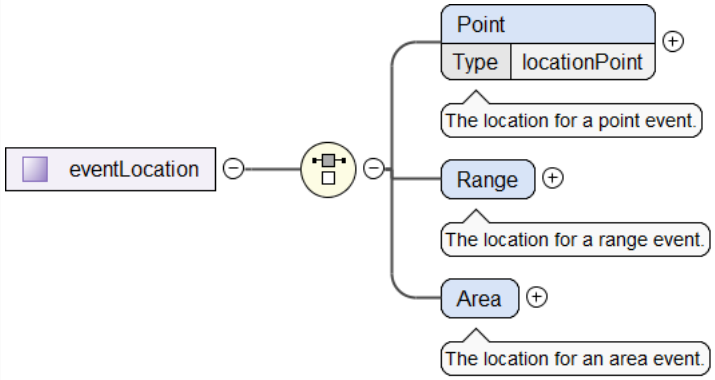
Complex Type `latlon`

Diagram	
Used by	Element locationPoint/Coordinates
Model	Latitude , Longitude
Children	Latitude, Longitude
Source	<xs:complexType name="latlon"> <xs:sequence> <xs:element name="Latitude"> <xs:simpleType> <xs:restriction base="xs:decimal"> <xs:minInclusive value="-90"/> <xs:maxInclusive value="90"/> </xs:restriction> </xs:simpleType> </xs:element> <xs:element name="Longitude"> <xs:simpleType> <xs:restriction base="xs:decimal"> <xs:minInclusive value="-180"/> <xs:maxInclusive value="180"/> </xs:restriction> </xs:simpleType> </xs:element> </xs:sequence> </xs:complexType>

Complex Type `locationPoint`

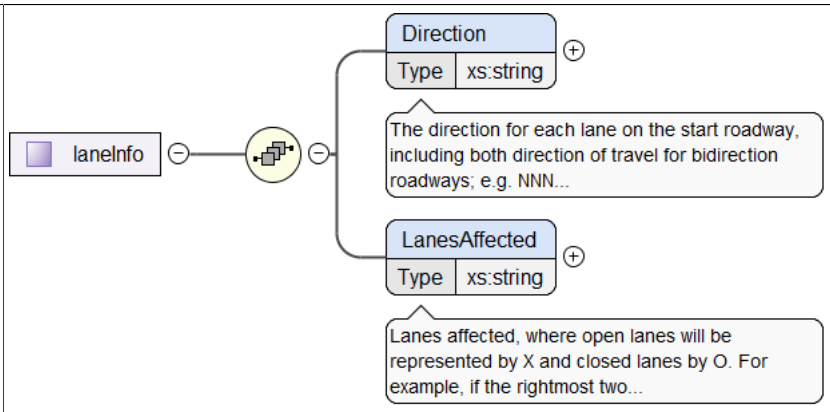
Diagram	
Used by	Elements eventLocation/Point, eventLocation/Range/End, eventLocation/Range/Start, eventLocation/Range/Way-point
Model	RoadwayName , Coordinates
Children	Coordinates, RoadwayName
Source	<xs:complexType name="locationPoint"> <xs:sequence> <xs:element name="RoadwayName" type="xs:string"> <xs:annotation> <xs:documentation>Name of the roadway for the location including direction (e.g. I-93 NB).</xs:documentation> </xs:annotation> </xs:element> <xs:element name="Coordinates" type="latlon"> <xs:annotation> <xs:documentation>The coordinates of the start/end/decision point.</xs:documentation> </xs:annotation> </xs:element> </xs:sequence> </xs:complexType>

Complex Type `eventLocation`

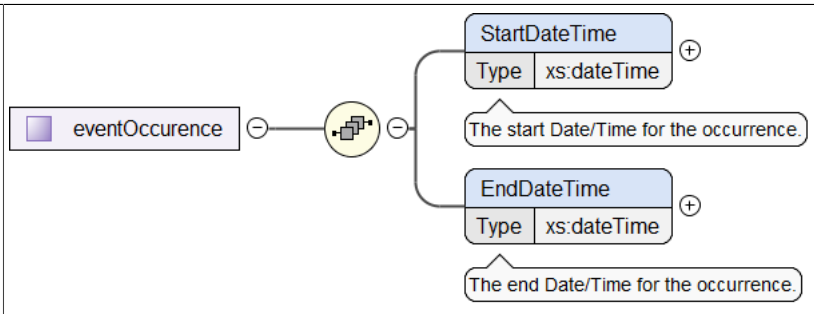
Diagram	
Used by	Element event/Location
Model	Point | Range | Area
Children	Area, Point, Range

Source	`<xs:complexType name="eventLocation">`
	`  <xs:choice>`
	`  <xs:element name="Point" type="locationPoint">`
	`  <xs:annotation>`
	`  <xs:documentation>The location for a point event.</xs:documentation>`
	`  </xs:annotation>`
	`  </xs:element>`
	`  <xs:element name="Range">`
	`  <xs:annotation>`
	`  <xs:documentation>The location for a range event.</xs:documentation>`
	`  </xs:annotation>`
	`  <xs:complexType>`
	`  <xs:sequence>`
	`  <xs:element name="Start" type="locationPoint">`
	`  <xs:annotation>`
	`  <xs:documentation>The point on the roadway that indicates the beginning of the event.</xs:documentation>`
	`  </xs:annotation>`
	`  </xs:element>`
	`  <xs:element name="Waypoint" type="locationPoint" minOccurs="0" maxOccurs="unbounded">`
	`  <xs:annotation>`
	`  <xs:documentation>A point on the roadway that indicates a waypoint.</xs:documentation>`
	`  </xs:annotation>`
	`  </xs:element>`
	`  <xs:element name="End" type="locationPoint">`
	`  <xs:annotation>`
	`  <xs:documentation>The point on the roadway that indicates the end of the event.</xs:documentation>`
	`  </xs:annotation>`
	`  </xs:element>`
	`  </xs:sequence>`
	`  </xs:complexType>`
	`  </xs:element>`
	`  <xs:element name="Area">`
	`  <xs:annotation>`
	`  <xs:documentation>The location for an area event.</xs:documentation>`
	`  </xs:annotation>`
	`  <xs:complexType>`
	`  <xs:sequence>`
	`  <xs:element name="AreaType" type="areaEventType">`
	`  <xs:annotation>`
	`  <xs:documentation>The type of area region impacted by an event.</xs:documentation>`
	`  </xs:annotation>`
	`  </xs:element>`
	`  <xs:element name="AreaValue" type="xs:string" maxOccurs="unbounded">`
	`  <xs:annotation>`
	`  <xs:documentation>The name/value of the specific area (type indicated by AreaType) impacted by an event.</xs:documentation>`
	`  </xs:annotation>`
	`  </xs:element>`
	`  </xs:sequence>`
	`  </xs:complexType>`
	`  </xs:element>`
	`  </xs:choice>`
	`</xs:complexType>`

Complex Type `laneInfo`

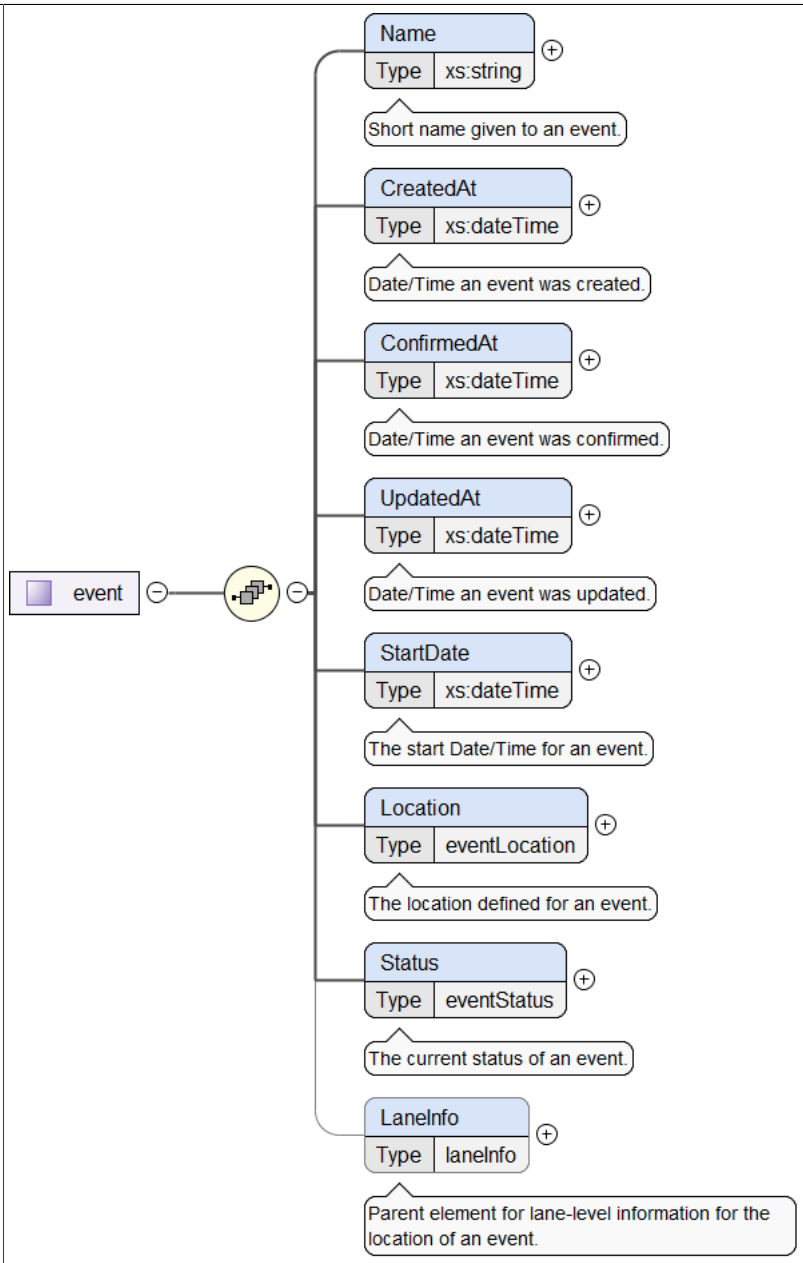
Diagram	
Used by	Element event/LaneInfo
Model	Direction , LanesAffected
Children	Direction, LanesAffected
Source	<xs:complexType name="laneInfo"> <xs:sequence> <xs:element name="Direction" type="xs:string"> <xs:annotation> <xs:documentation>The direction for each lane on the start roadway, including both direction of travel for bidirection roadways; e.g. NNN from three northbound lanes and SSSNNN for three southbound lanes and three northbound lanes. The convention is: - For northbound lanes, the first letter indicates the leftmost travel lane, which is closest to the median; - For southbound lanes, the first letter indicates the rightmost lane, which is closest to entry and exit ramps; - For eastbound lanes, the first letter indicates the leftmost travel lane, which is closest to the median; - For westbound lanes, the first letter indicates the rightmost lane, which is closest to entry and exit ramps.</xs:documentation> </xs:annotation> </xs:element> <xs:element name="LanesAffected" type="xs:string"> <xs:annotation> <xs:documentation>Lanes affected, where open lanes will be represented by X and closed lanes by O. For example, if the rightmost two lanes are closed, then the string will be OOOOXX.</xs:documentation> </xs:annotation> </xs:element> </xs:sequence> </xs:complexType>

Complex Type `eventOccurence`

Diagram	
Used by	Element plannedEvent/Occurrences/Occurrence
Model	StartDateTime , EndDateTime
Children	EndDateTime, StartDateTime
Source	<xs:complexType name="eventOccurence"> <xs:sequence> <xs:element name="StartDateTime" type="xs:dateTime"> <xs:annotation> <xs:documentation>The start Date/Time for the occurrence.</xs:documentation> </xs:annotation> </xs:element> <xs:element name="EndDateTime" type="xs:dateTime"> <xs:annotation> <xs:documentation>The end Date/Time for the occurrence.</xs:documentation>

```
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Complex Type event

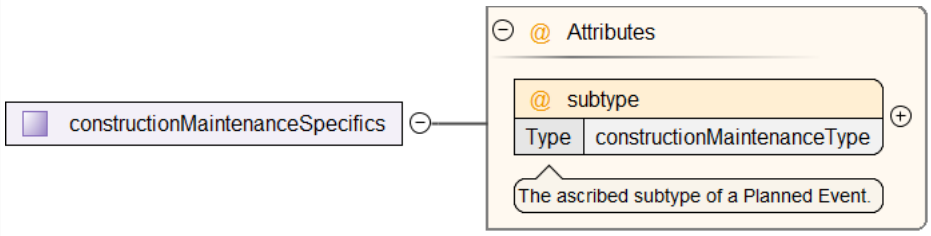
Diagram	
Used by	Complex Types plannedEvent, unplannedEvent
Model	Name , CreatedAt , ConfirmedAt , UpdatedAt , StartDate , Location , Status , LaneInfo{0,1}
Children	ConfirmedAt, CreatedAt, LaneInfo, Location, Name, StartDate, Status, UpdatedAt

Source	`<xs:complexType name="event">`
	`<xs:sequence>`
	`<xs:element name="Name" type="xs:string">`
	`<xs:annotation>`
	`<xs:documentation>Short name given to an event.</xs:documentation>`
	`</xs:annotation>`
	`</xs:element>`
	`<xs:element name="CreatedAt" type="xs:dateTime">`
	`<xs:annotation>`
	`<xs:documentation>Date/Time an event was created.</xs:documentation>`
	`</xs:annotation>`
	`</xs:element>`
	`<xs:element name="ConfirmedAt" type="xs:dateTime">`

```
      <xs:annotation>
        <xs:documentation>Date/Time an event was confirmed.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="UpdatedAt" type="xs:dateTime">
      <xs:annotation>
        <xs:documentation>Date/Time an event was updated.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="StartDate" type="xs:dateTime">
      <xs:annotation>
        <xs:documentation>The start Date/Time for an event.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Location" type="eventLocation">
      <xs:annotation>
        <xs:documentation>The location defined for an event.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Status" type="eventStatus">
      <xs:annotation>
        <xs:documentation>The current status of an event.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="LaneInfo" type="laneInfo" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Parent element for lane-level information for the location of an event.</
xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Complex Type `constructionMaintenanceSpecifics`

Diagram



Attributes

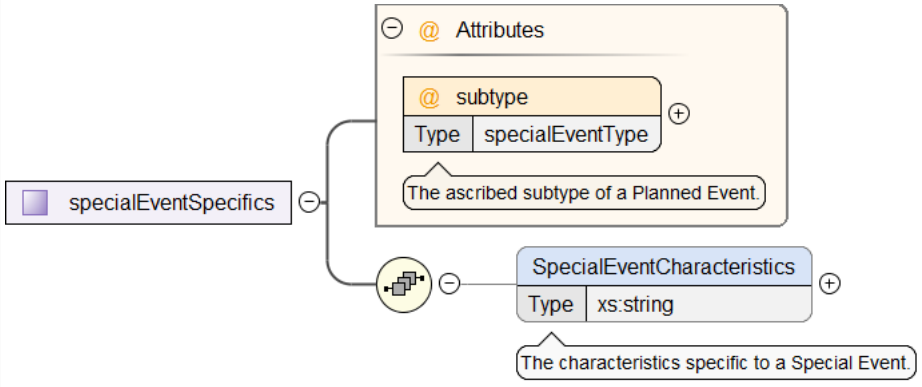
QName	Type	Use	
subtype	constructionMaintenanceType	required	
	The ascribed subtype of a Planned Event.		

Source

```
<xs:complexType name="constructionMaintenanceSpecifics">
  <xs:attribute name="subtype" type="constructionMaintenanceType" use="required">
    <xs:annotation>
      <xs:documentation>The ascribed subtype of a Planned Event.</xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:complexType>
```

Complex Type `specialEventSpecifics`

Diagram



Model

SpecialEventCharacteristics{0,1}

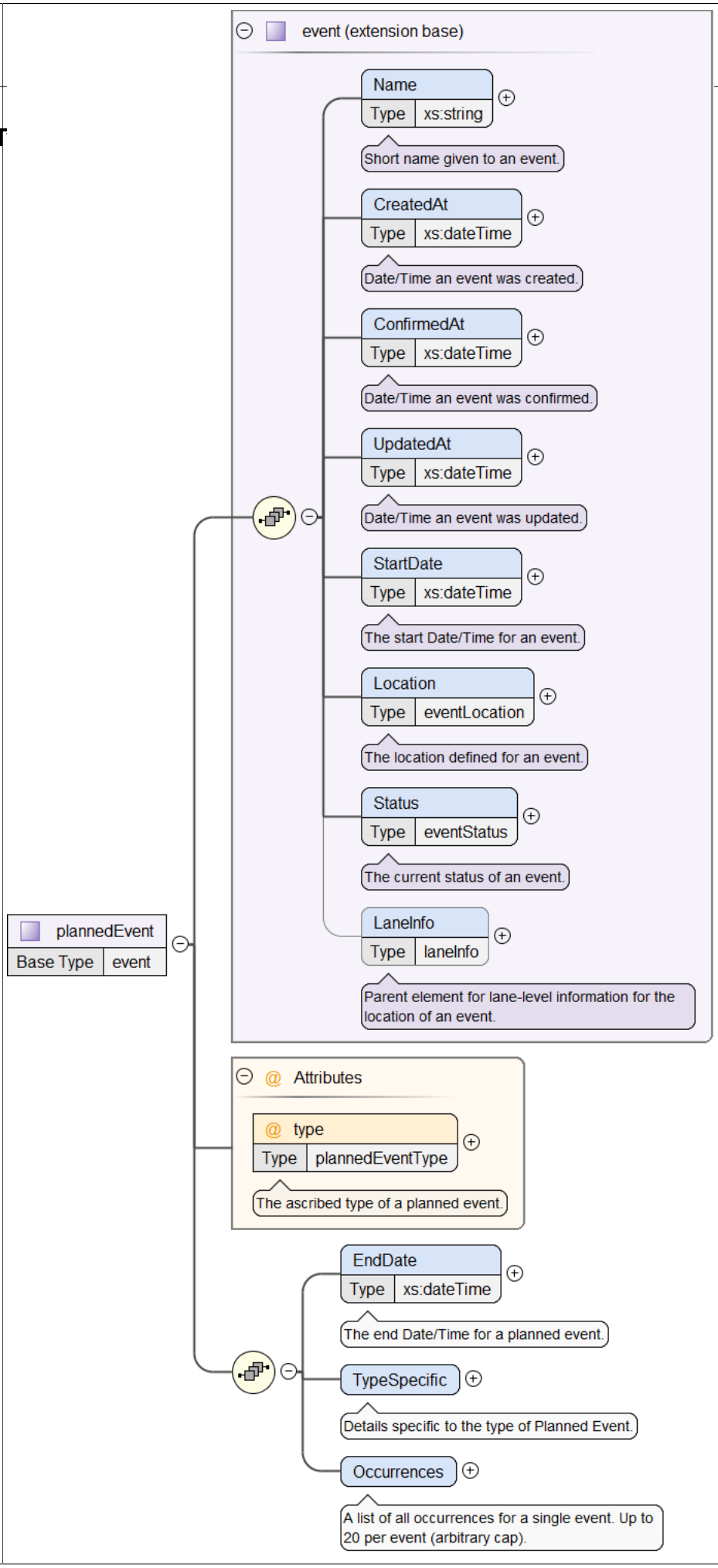
<table>
<tr><td>Children</td><td>SpecialEventCharacteristics</td></tr>
<tr><td>Attributes</td><td>
<table>
<tr><th>QName</th><th>Type</th><th>Use</th><th></th></tr>
<tr><td>subtype</td><td>specialEventType</td><td>required</td><td></td></tr>
<tr><td></td><td colspan="3">The ascribed subtype of a Planned Event.</td></tr>
</table>
</td></tr>
<tr><td>Source</td><td>

```
<xs:complexType name="specialEventSpecifics">
  <xs:sequence>
    <xs:element name="SpecialEventCharacteristics" type="xs:string" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The characteristics specific to a Special Event.</xs:documentation>
      </xs:annotation>
      <xs:alternative test="@subtype = 'STADIUM/ARENA_EVENT'" type="stadiumArenaEventType"/>
      <xs:alternative test="@subtype = 'OUTDOOR_EVENT'" type="outdoorEventType"/>
      <xs:alternative test="@subtype = 'ATHLETIC_EVENT'" type="athleticEventType"/>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="subtype" type="specialEventType" use="required">
    <xs:annotation>
      <xs:documentation>The ascribed subtype of a Planned Event.</xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:complexType>
```

</td></tr>
</table>

Diagram

Complex T



Type	extension of event
Type hierarchy	• event • plannedEvent
Used by	Element EventsFeed/Events/PlannedEvent
Model	Name , CreatedAt , ConfirmedAt , UpdatedAt , StartDate , Location , Status , LaneInfo{0,1} , EndDate , TypeSpecific , Occurrences
Children	ConfirmedAt, CreatedAt, EndDate, LaneInfo, Location, Name, Occurrences, StartDate, Status, TypeSpecific, UpdatedAt

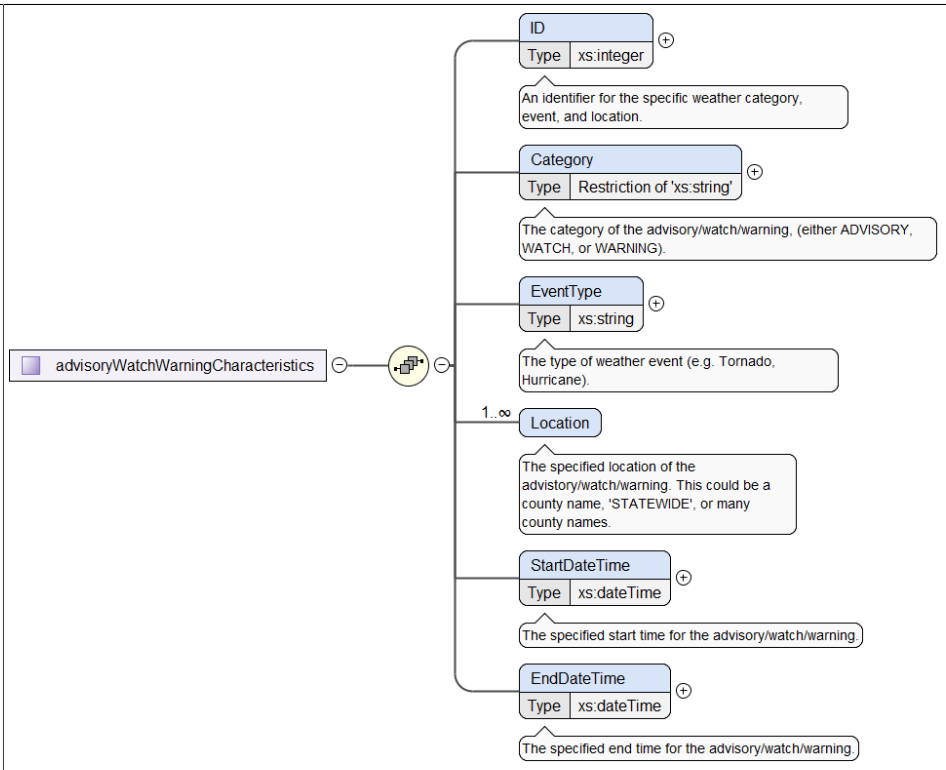
Attributes

QName	Type	Use	
type	plannedEventType	required	
	The ascribed type of a planned event.		

Source

```
<xs:complexType name="plannedEvent">
  <xs:complexContent>
    <xs:extension base="event">
      <xs:sequence>
        <xs:element name="EndDate" type="xs:dateTime">
          <xs:annotation>
            <xs:documentation>The end Date/Time for a planned event.</xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="TypeSpecific">
          <xs:annotation>
            <xs:documentation>Details specific to the type of Planned Event.</xs:documentation>
          </xs:annotation>
          <xs:alternative test="@type = 'CONSTRUCTION/MAINTENANCE'"
 type="constructionMaintenanceSpecifics"/>
          <xs:alternative test="@type = 'SPECIAL_EVENT'" type="specialEventSpecifics"/>
        </xs:element>
        <xs:element name="Occurrences">
          <xs:annotation>
            <xs:documentation>A list of all occurrences for a single event. Up to 20 per event
 (arbitrary cap).</xs:documentation>
          </xs:annotation>
          <xs:complexType>
            <xs:sequence maxOccurs="20">
              <xs:element name="Occurrence" type="eventOccurence">
                <xs:annotation>
                  <xs:documentation>A single occurrence of a reurring event.</xs:documentation>
                </xs:annotation>
              </xs:element>
            </xs:sequence>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
      <xs:attribute name="type" type="plannedEventType" use="required">
        <xs:annotation>
          <xs:documentation>The ascribed type of a planned event.</xs:documentation>
        </xs:annotation>
      </xs:attribute>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

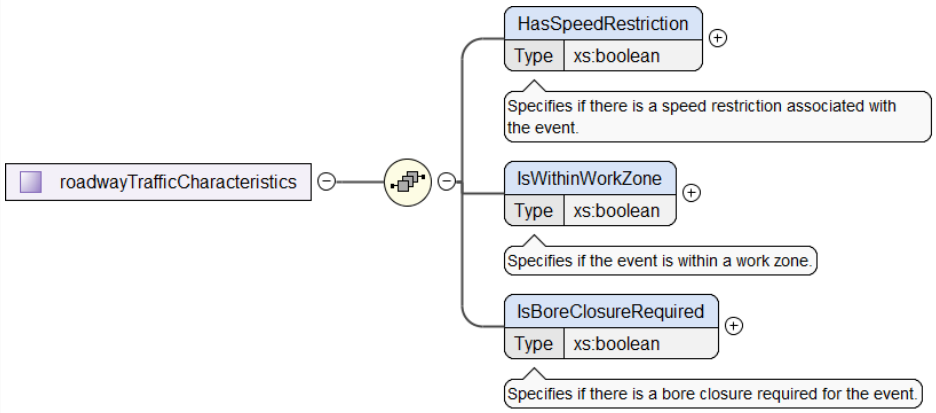
Complex Type advisoryWatchWarningCharacteristics

Diagram	
Used by	Element actsOfNatureSpecifics/Characteristics
Model	ID , Category , EventType , Location+ , StartDateTime , EndDateTime
Children	Category, EndDateTime, EventType, ID, Location, StartDateTime
Source	

```
<xs:complexType name="advisoryWatchWarningCharacteristics">
  <xs:sequence>
    <xs:element name="ID" type="xs:integer">
      <xs:annotation>
        <xs:documentation>An identifier for the specific weather category, event, and location.</
xs:documentation>
      </xs:annotation>
    </xs:element>
    <!-- ensure this is described in the docs -->
    <xs:element name="Category">
      <xs:annotation>
        <xs:documentation>The category of the advisory/watch/warning, (either ADVISORY, WATCH, or
 WARNING).</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="ADVISORY"/>
          <xs:enumeration value="WATCH"/>
          <xs:enumeration value="WARNING"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="EventType" type="xs:string">
      <xs:annotation>
        <xs:documentation>The type of weather event (e.g. Tornado, Hurricane).</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Location" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>The specified location of the advistory/watch/warning. This could be a
 county name, 'STATEWIDE', or many county names.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="StartDateTime" type="xs:dateTime">
      <xs:annotation>
        <xs:documentation>The specified start time for the advisory/watch/warning.</
xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="EndDateTime" type="xs:dateTime">
```

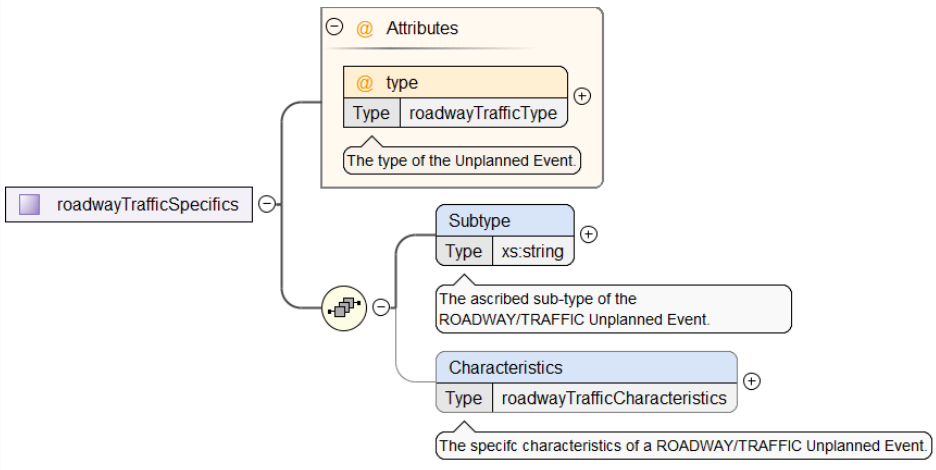
```
      <xs:annotation>
        <xs:documentation>The specified end time for the advisory/watch/warning.</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Complex Type `roadwayTrafficCharacteristics`

Diagram	
Used by	Element roadwayTrafficSpecifics/Characteristics
Model	HasSpeedRestriction , IsWithinWorkZone , IsBoreClosureRequired
Children	HasSpeedRestriction, IsBoreClosureRequired, IsWithinWorkZone

Source	`<xs:complexType name="roadwayTrafficCharacteristics">`
	`  <xs:sequence>`
	`    <xs:element name="HasSpeedRestriction" type="xs:boolean">`
	`      <xs:annotation>`
	`        <xs:documentation>Specifies if there is a speed restriction associated with the event.</xs:documentation>`
	`      </xs:annotation>`
	`    </xs:element>`
	`    <xs:element name="IsWithinWorkZone" type="xs:boolean">`
	`      <xs:annotation>`
	`        <xs:documentation>Specifies if the event is within a work zone.</xs:documentation>`
	`      </xs:annotation>`
	`    </xs:element>`
	`    <xs:element name="IsBoreClosureRequired" type="xs:boolean">`
	`      <xs:annotation>`
	`        <xs:documentation>Specifies if there is a bore closure required for the event.</xs:documentation>`
	`      </xs:annotation>`
	`    </xs:element>`
	`  </xs:sequence>`
	`</xs:complexType>`

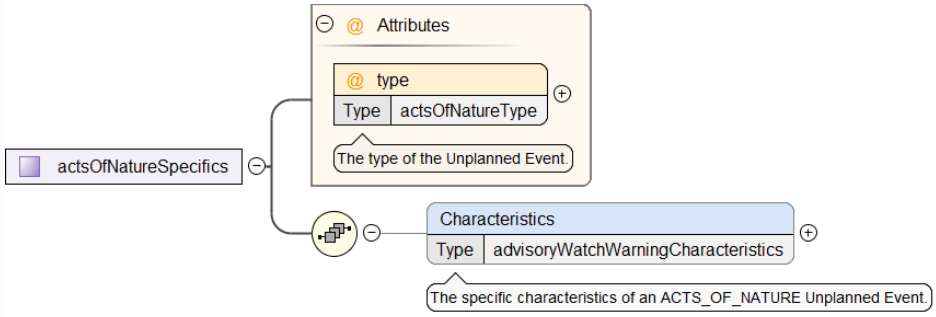
Complex Type `roadwayTrafficSpecifics`

Diagram	

Model	Subtype , Characteristics{0,1}
Children	Characteristics, Subtype
Attributes	**QName** / **Type** / **Use** **type** / roadwayTrafficType / required The type of the Unplanned Event.

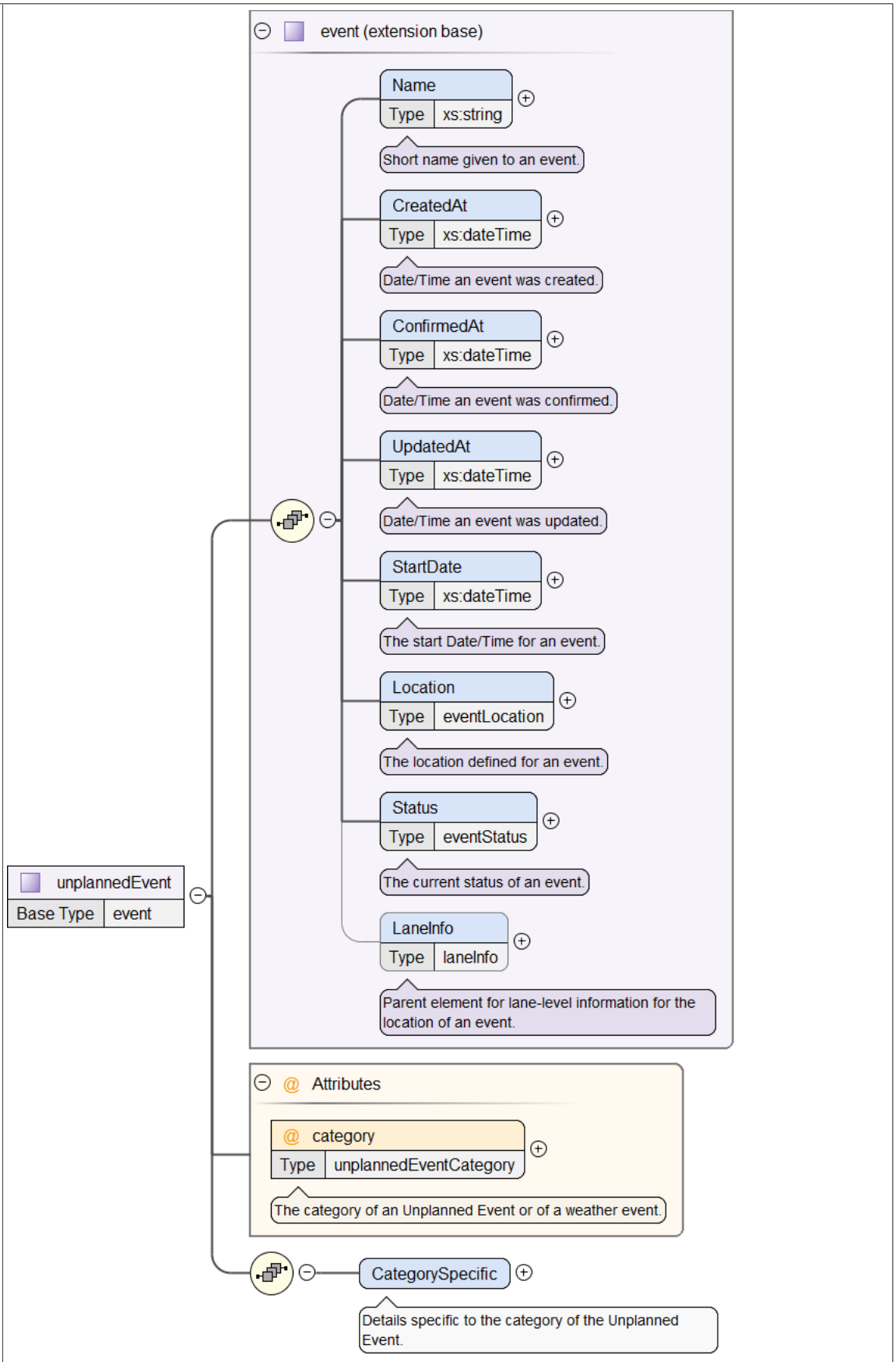
```
<xs:complexType name="roadwayTrafficSpecifics">
  <xs:sequence>
    <xs:element name="Subtype" type="xs:string">
      <xs:annotation>
        <xs:documentation>The ascribed sub-type of the ROADWAY/TRAFFIC Unplanned Event.</
xs:documentation>
      </xs:annotation>
      <xs:alternative test="@type = 'FIRE'" type="roadwayTrafficFireSubtype"/>
      <xs:alternative test="@type = 'ROADWAY_DAMAGE'" type="roadwayTrafficRoadwayDamageSubtype"/>
      <xs:alternative test="@type = 'ROADWAY_OBSTRUCTION'"
 type="roadwayTrafficRoadwayObstructionSubtype"/>
    </xs:element>
    <xs:element name="Characteristics" type="roadwayTrafficCharacteristics" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The specifc characteristics of a ROADWAY/TRAFFIC Unplanned Event.</
xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="type" type="roadwayTrafficType" use="required">
    <xs:annotation>
      <xs:documentation>The type of the Unplanned Event.</xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:complexType>
```

Complex Type `actsOfNatureSpecifics`

Diagram	
Model	Characteristics{0,1}
Children	Characteristics
Attributes	**QName** / **Type** / **Use** **type** / actsOfNatureType / required The type of the Unplanned Event.

```
<xs:complexType name="actsOfNatureSpecifics">
  <xs:sequence>
    <xs:element name="Characteristics" type="advisoryWatchWarningCharacteristics" minOccurs="0">
      <xs:annotation>
        <xs:documentation>The specific characteristics of an ACTS_OF_NATURE Unplanned Event.</
xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
  <xs:attribute name="type" type="actsOfNatureType" use="required">
    <xs:annotation>
      <xs:documentation>The type of the Unplanned Event.</xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:complexType>
```

Complex Type unplannedEvent

Diagram	
Type	extension of event

Type hierarchy	• event • unplannedEvent
Used by	Element EventsFeed/Events/UnplannedEvent
Model	Name , CreatedAt , ConfirmedAt , UpdatedAt , StartDate , Location , Status , LaneInfo{0,1} , CategorySpecific
Children	CategorySpecific, ConfirmedAt, CreatedAt, LaneInfo, Location, Name, StartDate, Status, UpdatedAt
Attributes	**QName** **Type** **Use** **category** unplannedEventCategory required The category of an Unplanned Event or of a weather event.
Source	<xs:complexType name="unplannedEvent"> <xs:complexContent> <xs:extension base="event"> <xs:sequence> <xs:element name="CategorySpecific"> <xs:annotation> <xs:documentation>Details specific to the category of the Unplanned Event.</xs:documentation> </xs:annotation> <xs:alternative test="@category = 'ROADWAY/TRAFFIC'" type="roadwayTrafficSpecifics"/> <xs:alternative test="@category = 'ACTS_OF_NATURE'" type="actsOfNatureSpecifics"/> </xs:element> </xs:sequence> <xs:attribute name="category" type="unplannedEventCategory" use="required"> <xs:annotation> <xs:documentation>The category of an Unplanned Event or of a weather event.</xs:documentation> </xs:annotation> </xs:attribute> </xs:extension> </xs:complexContent> </xs:complexType>

Attribute(s)

Attribute `constructionMaintenanceSpecifics / @subtype`

Annotations	The ascribed subtype of a Planned Event.	
Type	constructionMaintenanceType	
Properties	use:	required
Facets	enumeration	ROADWAY_ACTIVITY
	enumeration	BRIDGE_ACTIVITY
	enumeration	TUNNEL_ACTIVITY
	enumeration	FACILITY_ACTIVITY
	enumeration	UTILITY_ACTIVITY
Used by	Complex Type	constructionMaintenanceSpecifics
Source	<xs:attribute name="subtype" type="constructionMaintenanceType" use="required"> <xs:annotation> <xs:documentation>The ascribed subtype of a Planned Event.</xs:documentation> </xs:annotation> </xs:attribute>	

Attribute `specialEventSpecifics / @subtype`

Annotations	The ascribed subtype of a Planned Event.	
Type	specialEventType	
Properties	use:	required
Facets	enumeration	STADIUM/ARENA_EVENT
	enumeration	OUTDOOR_EVENT
	enumeration	VIP_VISIT
	enumeration	ATHLETIC_EVENT
	enumeration	FUNERAL_PROCESSION

	enumeration	TRAINING/DRILL
	enumeration	OTHER
Used by	Complex Type	specialEventSpecifics
Source	<xs:attribute name="subtype" type="specialEventType" use="required"> <xs:annotation> <xs:documentation>The ascribed subtype of a Planned Event.</xs:documentation> </xs:annotation> </xs:attribute>	

Attribute plannedEvent / @type

Annotations	The ascribed type of a planned event.	
Type	plannedEventType	
Properties	use:	required
Facets	enumeration	CONSTRUCTION/MAINTENANCE
	enumeration	SPECIAL_EVENT
Used by	Complex Type	plannedEvent
Source	<xs:attribute name="type" type="plannedEventType" use="required"> <xs:annotation> <xs:documentation>The ascribed type of a planned event.</xs:documentation> </xs:annotation> </xs:attribute>	

Attribute roadwayTrafficSpecifics / @type

Annotations	The type of the Unplanned Event.	
Type	roadwayTrafficType	
Properties	use:	required
Facets	enumeration	CRASH
	enumeration	DISABLED_MOTOR_VEHICLE
	enumeration	FIRE
	enumeration	ROADWAY_DAMAGE
	enumeration	ROADWAY_OBSTRUCTION
	enumeration	CONGESTION
	enumeration	GENERAL_ROADWAY/TRAFFIC
Used by	Complex Type	roadwayTrafficSpecifics
Source	<xs:attribute name="type" type="roadwayTrafficType" use="required"> <xs:annotation> <xs:documentation>The type of the Unplanned Event.</xs:documentation> </xs:annotation> </xs:attribute>	

Attribute actsOfNatureSpecifics / @type

Annotations	The type of the Unplanned Event.	
Type	actsOfNatureType	
Properties	use:	required
Facets	enumeration	LOCAL_WEATHER_EVENT
	enumeration	ADVISORY/WATCH/WARNING
Used by	Complex Type	actsOfNatureSpecifics
Source	<xs:attribute name="type" type="actsOfNatureType" use="required"> <xs:annotation> <xs:documentation>The type of the Unplanned Event.</xs:documentation> </xs:annotation> </xs:attribute>	

Attribute unplannedEvent / @category

Annotations	The category of an Unplanned Event or of a weather event.
Type	unplannedEventCategory
Properties	use: required
Facets	enumeration ROADWAY/TRAFFIC enumeration ACTS_OF_NATURE
Used by	Complex Type unplannedEvent
Source	<xs:attribute name="category" type="unplannedEventCategory" use="required"> <xs:annotation> <xs:documentation>The category of an Unplanned Event or of a weather event.</xs:documentation> </xs:annotation> </xs:attribute>