



Technical Specification

ISO/TS 22726-2

Intelligent transport systems — Dynamic data and map database specification for connected and automated driving system applications —

Part 2: Logical data model of dynamic data

*Systèmes de transport intelligents — Spécification de
données dynamiques et de bases de données cartographiques
pour les applications de système de conduite connectées et
automatisées —*

Partie 2: Modèle de données logique des données dynamiques

**First edition
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 278, *Intelligent transport systems*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 22726 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In response to emerging automated driving system development, the need to define associated map database standards has been recognized. Automated driving systems require information on the road, lane and intersection. Conventional road networks for intelligent transport systems (ITS) use a linear modelling method such as link and node. Due to these new requirements, automated driving systems need a data model to express advanced features. The belt-shaped data modelling method has already been developed based on the "belt concept" in ISO 20524-2 to provide information about the road, lane and intersection. The concept of "map for highly automated driving" (MHAD) adopts the belt-shaped data model and harmonizes with the conventional road model such as that of ISO/TS 22726-1.

This document can be used as a reference model for ITS, for example, connected and automated driving system applications and applications of backend map centres which use map and map-related data. Implementation of this document can lead to cost reductions in maintenance/expansion of map access libraries as well as compilation/maintenance of map and map-related data for data providers and connected and automated driving/vehicle control applications.

This document does not define or specify new standards for dynamic information. Neither does it define procedures and/or methods for generating unified contents. It can be used for connected and automated driving system applications. This document's data model of MHAD and that of ISO/TS 22726-1 complement each other.

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Intelligent transport systems — Dynamic data and map database specification for connected and automated driving system applications —

Part 2: Logical data model of dynamic data

1 Scope

This document specifies a unified logical data model based on available existing dynamic information standards. The data has precise relative location references to be linked with ISO/TS 22726-1 which specifies the architecture and the logical data model of static map data for connected and automated driving applications. Dynamic event data comes from external systems and has been defined and specified independently by existing standards. Therefore, the logical data model in this document is formed to synthesize contents referring to other standards.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 19505 (all parts), *Information technology — Object Management Group Unified Modeling Language (OMG UML)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

cancellation

action which provides indication that all the element information previously sent is not considered valid, due to an incorrect content

3.2

end

binary attribute specifying whether the situation element is finished (true) or not (false)

EXAMPLE In EN 16157-7:2018, Table A.10, if finished (i.e. end is true) the overallEndTime in the OverallPeriod class associated with the SituationRecord is populated.

3.3

correctness

correspondence with the universe of discourse

[SOURCE: ISO 19157-1:2023, 3.4]

3.4

accuracy

closeness of agreement between a test result or measurement result and the true value

[SOURCE: ISO 19157-1:2023, 3.1 modified — Note 1 to entry has been removed.]

3.5

timeliness

degree to which an IT service delivers outcomes within time limits

Note 1 to entry: In some cases, service timeliness is affected by a combination of multiple services provided by different service providers. For example, online shopping service is expected to provide not only timely retrieval of newly added products on sale, but also timely delivery to the user by the parcel-delivery service provider.

[SOURCE: ISO/IEC TS 25011:2017, 3.2.6.1]

3.6

location reference

specification of a location according to a specific set of rules

3.7

location

identifiable place within a three-dimensional space

3.8

area location

location that has a two-dimensional character

3.9

linear location

location that has a one-dimensional character

3.10

line string

geometric object representing a sequence of connected line segments in a 2D or 3D space and consisting of two or more points connected by straight line segments

Note 1 to entry: It can be used to represent a variety of features, such as roads, paths, or boundaries.

3.11

multipolygon

collection of polygons

3.12

point by coordinates

point location defined by a coordinate set with an optional bearing direction

Note 1 to entry: Adapted from EN 16157-2:2019, Table A.42.

3.13

point location

location that has a zero-dimensional character

3.14

position confidence

degree of certainty of the current location or position of an event or an object

3.15

transversal location reference

method of determining the location of a point or feature relative to a fixed reference line or centreline

3.16**universe of discourse**

view of the real or hypothetical world that includes everything of interest

[SOURCE: ISO 19101-1:2014, 4.1.38]

4 Abbreviated terms

DATEX	data exchange NOTE "DATEX" refers to a European standard dealing with data exchange for traffic management and traffic information.
DENM	decentralized environmental notification message
EV	electric vehicle
IVI	in-vehicle information
MHAD	map for highly automated driving
VICS	vehicle information and communication systems
VMS	variable message sign

5 Conformance

The UML diagrams used in this document shall be in conformance with the ISO/IEC 19505 series.

6 Modelling**6.1 Introduction**

This document was created by developing a generic logical data model for dynamic data services and comparing with the data models of services of interest, namely EN 16157-2, EN 16157-3 and EN 16157-7 (DATEX II), ISO 21219-15 (TPEG2-TEC), ISO/TS 19321 (IVI), ETSI EN 302 637-3 (DENM), ISO/TS 18234-8 (TPEG1-CTT) and VICS, which is based on a Japanese national standard. The methodology uses data modelling based on the Unified Modeling Language (UML), version 2, as specified in the ISO/IEC 19505 series. The generic data model specified in this document does conform to ISO 19103 and ISO 19107.

6.2 Mapping of the different standards' classes and the proposed generic data model's classes

The generic data model specified within this document has been compared with the data models of EN 16157-2, EN 16157-3 and EN 16157-7 (DATEX II) in the first case, ISO 21219-15 (TPEG2-TEC) in the second case, ISO/TS 19321 (IVI) in the third case, and ETSI EN 302 637-3 (DENM) for the fourth. When relevant, relationships have been established between classes of one of the existing specifications' data model and the generic logical data model of this document.

[Annex A](#) contains various matrices. The Relationship Matrix is a spreadsheet display of relationships between elements (classes) in two different packages, one of the generic data model and the other from one of the existing data models. The Relationship Matrices have been produced for all models.

NOTE The matrices were exported to Excel and merged into one single matrix where the corresponding classes can be managed together. Where no UML model is available (in the case of ISO/TS 18234-8 (TPEG1-CTT) and VICS) the classes of the specifications concerned have been added manually and the correctness of the mapping checked with the corresponding stakeholders (Republic of Korea and Japan).

Once the classes have been mapped to each other, the corresponding data attributes and metadata have been processed and the generic data model complemented.

6.3 Relationship between ISO/TS 22726-1 and this document (ISO/TS 22726-1)

Dynamic map data needs to be set onto the right location on a digital map. For this purpose, a map-matching function is used which consists of using different types of location referencing systems such as point locations, linear locations and area locations. For this reason, this document also covers the description of the interface specifying the logical link between dynamic data and static data as specified respectively by this document and by ISO/TS 22726-1.

The LocationRealisation package of the LocationReference package is used for this purpose. All location reference packages (AreaLocation, LinearLocation, PointLocation) have their respective Location Realisation class diagram implementing the interface to RoadNetworkElement specified in ISO/TS 22726-1 (see [Figure 1](#)).

[Annex B](#) presents different possible use cases in relation to location referencing.

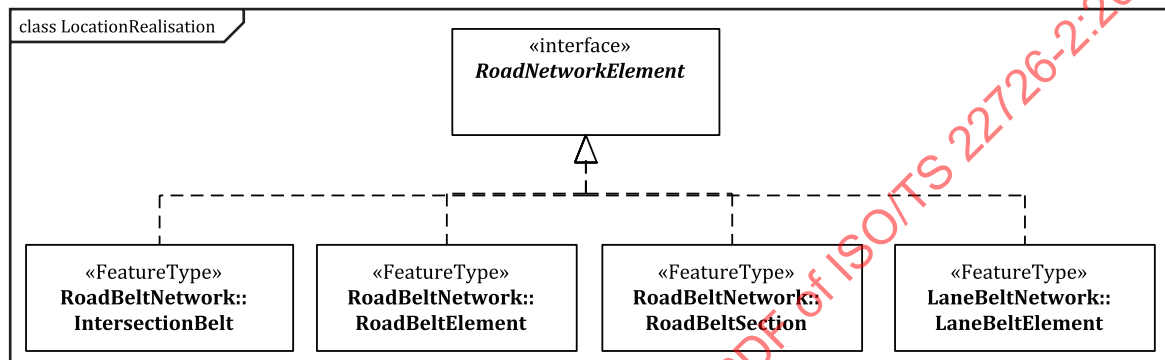


Figure 1 — LocationRealisation class from ISO/TS 22726-1:2023

7 Data content specification

7.1 Introduction

This clause provides a detailed overview of the data packages and related data classes of the generic data model, including their definition, structure and content.

7.2 "DynamicInformationDataSet" package

7.2.1 Overall presentation

The DynamicInformationDataSet package shall contain the different packages dealing with data sets that can be exchanged via one the dynamic data interface considered by this document.

[Figure 2](#) pictures the classes of the package including the relationships between them.

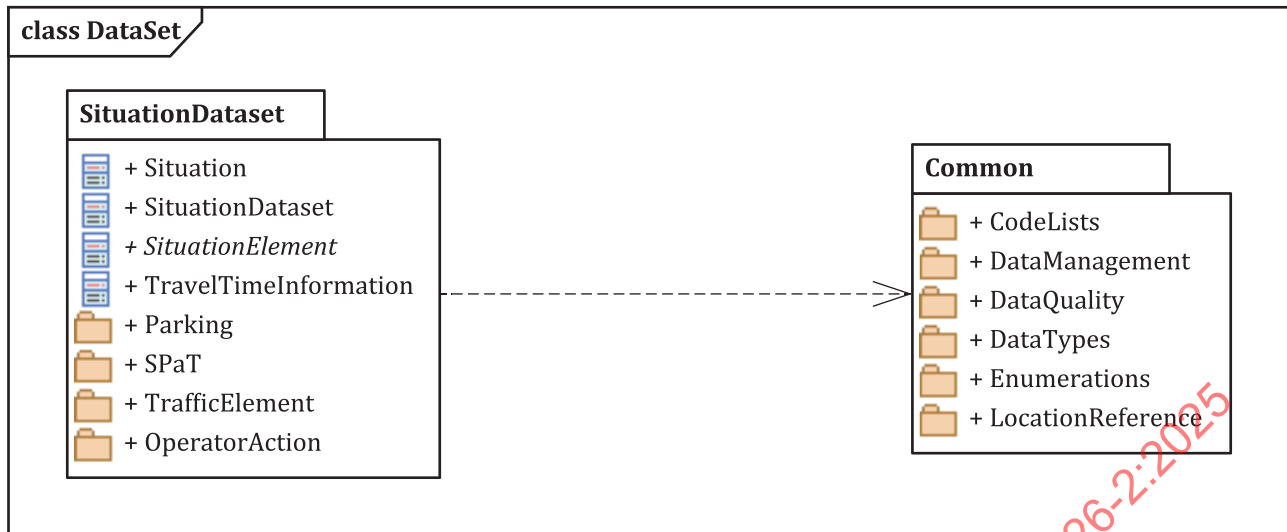


Figure 2 — The "DataSet" class diagram

7.2.2 Class definition

The classes belonging to the difference packages shown in [Figure 2](#) are described by the tables appearing in the subclause in which the package is detailed.

7.3 "Common" package

7.3.1 Overall presentation

The Common package shall comprise a collection of information including data types, reusable collections and lists of enumerations.

[Figure 3](#) pictures the classes of the package including the relationships between them.

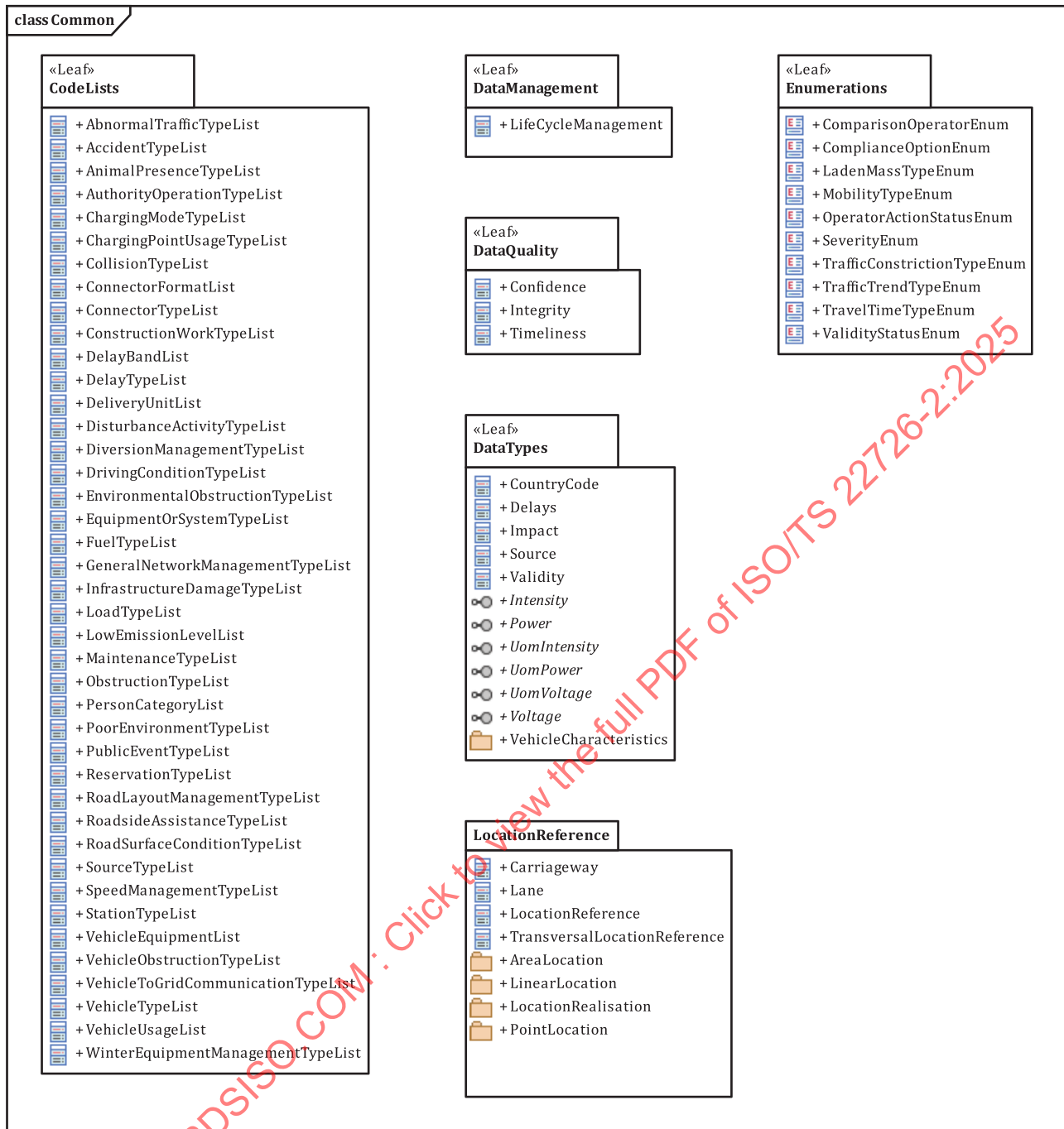


Figure 3 — The "Common" class diagram

7.3.2 Class definition

The classes belonging to the difference packages shown in [Figure 3](#) are described by the tables appearing in the subclause in which the package is detailed.

7.4 "CodeLists" package

7.4.1 Overall presentation

The CodeLists package shall comprise a collection of code lists used by the dynamic data services.

For these classes, examples of corresponding information are provided for illustrative purposes. They are implemented as XML files available separately and each included literal contains a numeric code, the corresponding value in lower CamelCase notation and the definition.

[Figure 4](#) pictures the classes of the package including the relationships between them.

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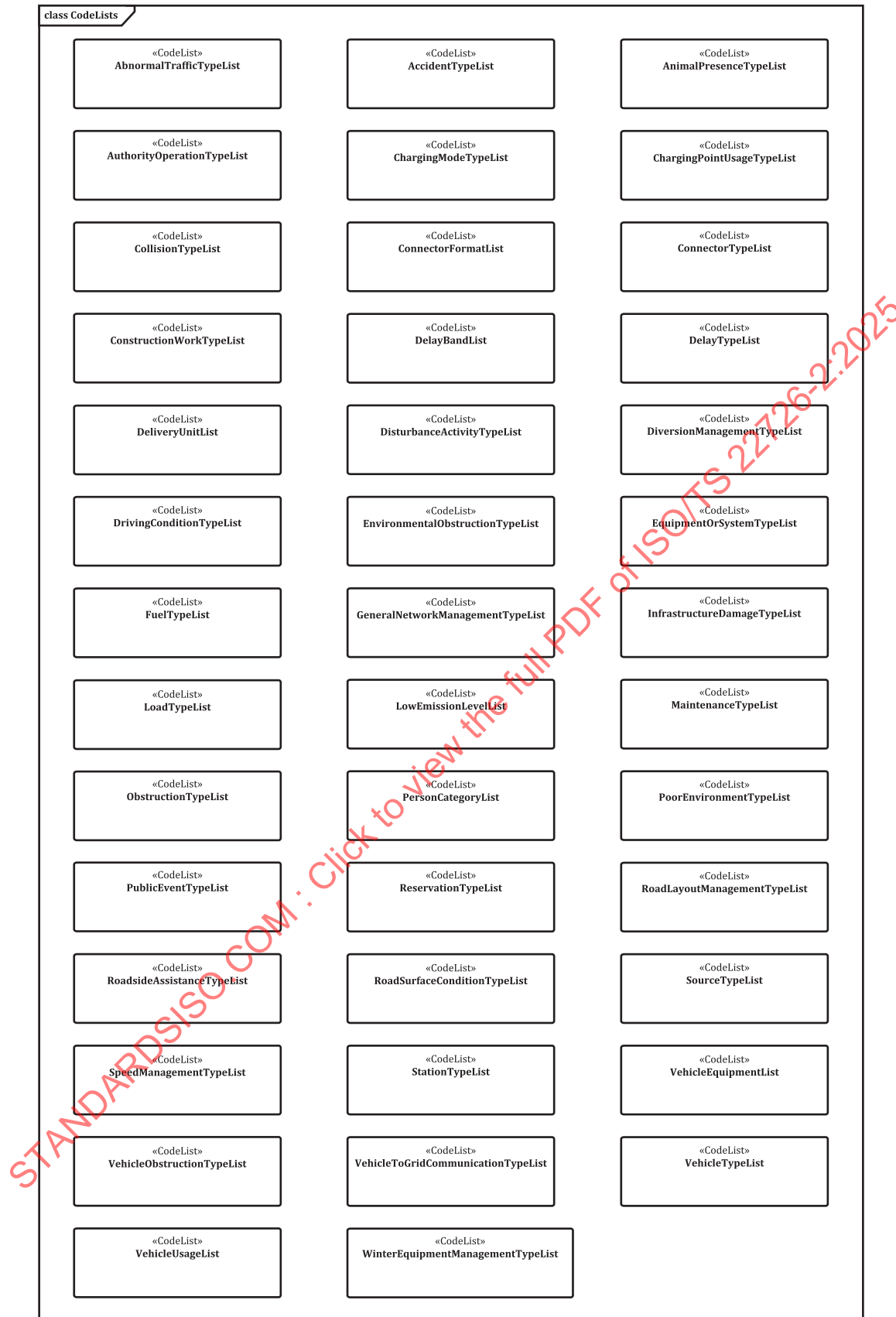


Figure 4 — The "CodeLists" class diagram

[Annex C](#) summarises the different URLs implementing these codelists as XML files.

7.4.2 Class definition

The tables below define the different classes used in this package.

[Table 1](#) defines the characteristics of the AbnormalTrafficTypeList class.

Table 1 — AbnormalTrafficTypeList Class

Class <<CodeList>>: AbnormalTrafficTypeList		
Definition: Descriptive terms for abnormal traffic conditions specifically relating to the nature of the traffic movement, implying levels of service.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/AbnormalTrafficTypeList.xml
Code (example)	Value	Definition
0	heavyTraffic	Traffic is heavy at the specified location (i.e. average speed is between 75 % and 90 % of its free-flow level).
1	slowTraffic	Traffic is slow-moving at the specified location, but not yet forming queues (i.e. average speed is between 25 % and 75 % of its free-flow level).
	...	

[Table 2](#) defines the characteristics of the AccidentTypeList class.

Table 2 — AccidentTypeList Class

Class <<CodeList>>: AccidentTypeList		
Definition: Collection of descriptive terms for types of accidents.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/AccidentTypeList.xml
Code (example)	Value	Definition
0	accident	Situations in which one or more vehicles lose control and do not recover. This includes collisions between vehicle(s) or other road user(s), between vehicle(s) and fixed obstacle(s), or the result of a vehicle running off the road.
11	collision	Collision of vehicle with another object of unspecified type.
	...	

[Table 3](#) defines the characteristics of the AnimalPresenceTypeList class.

Table 3 — AnimalPresenceTypeList Class

Class <<CodeList>>: AnimalPresenceTypeList		
Definition: Types of animal presence.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/AnimalPresenceTypeList.xml
Code (example)	Value	Definition

Table 3 (continued)

0	animalOnTheRoad	Traffic is potentially disrupted due to animals on the roadway.
1	herdOfAnimalsOnTheRoad	Traffic is potentially disrupted due to a herd of animals on the roadway.
	...	

[Table 4](#) defines the characteristics of the AuthorityOperationTypeList class.

Table 4 — AuthorityOperationTypeList Class

Class <<CodeList>>: AuthorityOperationTypeList		
Definition: Types of authority operations.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/AuthorityOperationTypeList.xml
Code (example)	Value	Definition
2	civilEmergency	A situation, perceived or actual, relating to a civil emergency which could disrupt traffic. This includes large scale destruction, through events such as earthquakes, insurrection and civil disobedience.
14	vehicleWeighing	A permanent or temporary operation established on or adjacent to the carriageway for weighing of vehicles by authorities.
	...	

[Table 5](#) defines the characteristics of the ChargingModeTypeList class.

Table 5 — ChargingModeTypeList Class

Class <<CodeList>>: ChargingModeTypeList		
Definition: List of the types of electric charging modes according to IEC 61851 terminology.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ChargingModeTypeList.xml
Code (example)	Value	Definition
0	ccs	Charging with a combined charging solution (CCS). AC and DC are used simultaneously.
5	mode2AC3p	Mode 2, AC 3 phases.
	...	

[Table 6](#) defines the characteristics of the ChargingPointUsageTypeList class.

Table 6 — ChargingPointUsageTypeList Class

Class <<CodeList>>: ChargingPointUsageTypeList		
Definition: List of the types of usage for an electric charging point.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ChargingPointUsageTypeList.xml
Code (example)	Value	Definition

Table 6 (continued)

4	electricVehicle	Charging of electric vehicles.
5	lorryPowerConsumption	Supply for lorries with power consumption, e.g. for refrigerated goods transport.
	...	

[Table 7](#) defines the characteristics of the CollisionTypeList class.

Table 7 — CollisionTypeList Class

Class <<CodeList>>: CollisionTypeList		
Definition: Identifies a type of collision.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/CollisionTypeList.xml
Code (example)	Value	Definition
1	collisionWithAnimal	Collision of vehicle with one or more animals.
2	collisionWithObstacle	Collision of vehicle with an object of a stationary nature.
	...	

[Table 8](#) defines the characteristics of the ConnectorFormatList class.

Table 8 — ConnectorFormatList Class

Class <<CodeList>>: ConnectorFormatList		
Definition: A list of cable types used during the charging process.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ConnectorFormatList.xml
Code (example)	Value	Definition
0	cableMode2	The connector is an attached cable; the user of an electric vehicle (EV) needs to have a fitting inlet for a mode 2 cable, common for most domestic sockets.
3	socket	The connector is a socket; the EV user needs to bring a fitting plug.
	...	

[Table 9](#) defines the characteristics of the ConnectorTypeList class.

Table 9 — ConnectorTypeList Class

Class <<CodeList>>: ConnectorTypeList		
Definition: A list of commonly used connectors and charging interfaces.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ConnectorTypeList.xml
Code (example)	Value	Definition
0	cee3	Connector CEE3 (Voltage 230 V intensity 16A)
2	chademo	Connector CHAdeMO (600 V DC). Used mostly in Japan.
	...	

[Table 10](#) defines the characteristics of the ConstructionWorkTypeList class.

Table 10 — ConstructionWorkTypeList Class

Class <<CodeList>>: ConstructionWorkTypeList		
Definition: Types of works relating to construction.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ConstructionWorkTypeList.xml
Code (example)	Value	Definition
0	blastingWork	Blasting or quarrying work at the specified location.
4	roadWideningWork	Road widening work at the specified location.
	...	

[Table 11](#) defines the characteristics of the DelayBandList class.

Table 11 — DelayBandList Class

Class <<CodeList>>: DelayBandList		
Definition: List of values as a classification of a delay banded by length (i.e. the additional travel time).		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/DelayBandList.xml
Code (example)	Value	Definition
0	negligible	Negligible delay.
1	upToTenMinutes	Delay up to ten minutes.
	...	

[Table 12](#) defines the characteristics of the DelayTypeList class.

Table 12 — DelayTypeList Class

Class <<CodeList>>: DelayTypeList		
Definition: List of coarse values used as classifications of a delay.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/DelayTypeList.xml
Code (example)	Value	Definition
0	delays	Delays on the road network as a result of any situation which causes hold-ups.
2	longDelays	Delays on the road network of unusual severity.
	...	

[Table 13](#) defines the characteristics of the DeliveryUnitList class.

Table 13 — DeliveryUnitList Class

Class <<CodeList>>: DeliveryUnitList		
Definition: List of the different units in which the delivery is measured.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/DeliveryUnitList.xml
Code (example)	Value	Definition
3	kWh	Kilowatt hour.
6	usGallon	US gallon (3,785 litres).
	...	

[Table 14](#) defines the characteristics of the DisturbanceActivityTypeList class.

Table 14 — DisturbanceActivityTypeList Class

Class <<CodeList>>: DisturbanceActivityTypeList		
Definition: Types of disturbance activities.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/DisturbanceActivityTypeList.xml
Code (example)	Value	Definition
3	assetDestruction	A situation where assets of one or more persons or authorities have been destroyed.
9	demonstration	A public protest with the potential to disrupt traffic.
	...	

[Table 15](#) defines the characteristics of the DiversionManagementTypeList class.

Table 15 — DiversionManagementTypeList Class

Class <<CodeList>>: DiversionManagementTypeList		
Definition: Management actions relating to diversion or rerouting.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/DiversionManagementTypeList.xml
Code (example)	Value	Definition
0	doNotFollowDiversion-Signs	Do not follow diversion signs.
5	followLocalDiversion	Rerouted traffic is to follow local diversion.
	...	

[Table 16](#) defines the characteristics of the DrivingConditionTypeList class.

Table 16 — DrivingConditionTypeList Class

Class <<CodeList>>: DrivingConditionTypeList		
Definition: Types of the perceived driving conditions.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/DrivingConditionTypeList.xml
Code (example)	Value	Definition
0	impossible	Current conditions are making driving impossible.
3	passableWithCare	The roadway is passable to vehicles with driver care.
	...	

[Table 17](#) defines the characteristics of the EnvironmentalObstructionTypeList class.

Table 17 — EnvironmentalObstructionTypeList Class

Class <<CodeList>>: EnvironmentalObstructionTypeList		
Definition: Types of environmental obstructions.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/EnvironmentalObstructionTypeList.xml
Code (example)	Value	Definition
0	avalanches	The road is obstructed or partially obstructed due to snow slides.
1	earthquakeDamage	The road is obstructed or partially obstructed because of damage caused by an earthquake.
	...	

[Table 18](#) defines the characteristics of the EquipmentOrSystemTypeList class.

Table 18 — EquipmentOrSystemTypeList Class

Class <<CodeList>>: EquipmentOrSystemTypeList		
Definition: Types of equipment and systems used to support the operation of the road network.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/EquipmentOrSystemTypeList.xml
Code (example)	Value	Definition
2	cctvCameras	Closed-circuit television cameras.
9	rampControls	Ramp control equipment.
	...	

[Table 19](#) defines the characteristics of the FuelTypeList class.

Table 19 — FuelTypeList Class

Class <<CodeList>>: FuelTypeList		
Definition: List of types of fuel used by a vehicle.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/FuelTypeList.xml
Code (example)	Value	Definition
1	battery	Battery.
5	ethanol	Ethanol.
	...	

[Table 20](#) defines the characteristics of the GeneralNetworkManagementTypeList class.

Table 20 — GeneralNetworkManagementTypeList Class

Class <<CodeList>>: GeneralNetworkManagementTypeList		
Definition: Types of network management actions.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/GeneralNetworkManagementTypeList.xml
Code (example)	Value	Definition
0	bridgeSwingInOperation	The bridge at the specified location has swung or lifted and is therefore temporarily closed to traffic.
4	temporaryTrafficLights	Traffic is being controlled by temporary traffic lights (red-yellow-green or red-green).
	...	

[Table 21](#) defines the characteristics of the InfrastructureDamageTypeList class.

Table 21 — InfrastructureDamageTypeList Class

Class <<CodeList>>: InfrastructureDamageTypeList		
Definition: Types of infrastructure damage which may have an effect on the road network.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/InfrastructureDamageTypeList.xml
Code (example)	Value	Definition
4	damagedCrashBarrier	Damage to a crash barrier that may cause traffic disruption.
11	fallenPowerCables	The road is obstructed or partially obstructed by one or more fallen power cables.
	...	

[Table 22](#) defines the characteristics of the LoadTypeList class.

Table 22 — LoadTypeList Class

Class <<CodeList>>: LoadTypeList		
Definition: List of types of load carried by a vehicle.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/LoadTypeList.xml
Code (example)	Value	Definition
0	abnormalLoad	A load that exceeds normal vehicle dimensions in terms of height, length, width, gross vehicle weight or axle weight or any combination of these. Generally termed an "abnormal load".
2	chemicals	Chemicals of unspecified type.
	...	

[Table 23](#) defines the characteristics of the LowEmissionLevelList class.

Table 23 — LowEmissionLevelList Class

Class <<CodeList>>: LowEmissionLevelList		
Definition: List of the low emission levels of a vehicle.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/LowEmissionLevelList.xml
Code (example)	Value	Definition
0	lowEmissionLevel	Vehicles with low level emission.
1	freeOfEmission	Only vehicles that do not produce emissions (e.g. electric driven). Hybrid driven cars are allowed, when they switch to emission free mode within the considered situation.
	...	

[Table 24](#) defines the characteristics of the MaintenanceTypeList class.

Table 24 — MaintenanceTypeList Class

Class <<CodeList>>: MaintenanceTypeList		
Definition: Types of road maintenance.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/MaintenanceTypeList.xml
Code (example)	Value	Definition
1	clearanceWork	Clearance work of an unspecified nature.
17	snowploughsInUse	Snowploughs or other similar mechanical devices in use to clear snow from the road.
	...	

[Table 25](#) defines the characteristics of the ObstructionTypeList class.

Table 25 — ObstructionTypeList Class

Class <<CodeList>>: ObstructionTypeList		
Definition: Types of obstructions on the carriageway.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ObstructionTypeList.xml
Code (example)	Value	Definition
3	craneOperating	A crane is operating either on or adjacent to the road which can cause an obstruction to traffic.
21	shedLoad	Spillage of transported goods on the roadway which can cause traffic disruption.
	...	

[Table 26](#) defines the characteristics of the PersonCategoryList class.

Table 26 — PersonCategoryList Class

Class <<CodeList>>: PersonCategoryList		
Definition: Categories of person.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/PersonCategoryList.xml
Code (example)	Value	Definition
1	child	Child (age 4 to 17).
5	medicalStaff	A member of the medical service.
	...	

[Table 27](#) defines the characteristics of the PoorEnvironmentTypeList class.

Table 27 — PoorEnvironmentTypeList Class

Class <<CodeList>>: PoorEnvironmentTypeList		
Definition: Types of poor environmental conditions.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/PoorEnvironmentTypeList.xml
Code (example)	Value	Definition
4	crosswinds	Strong cross winds across the direction of the roadway (e.g. on a ridge or bridge).
17	heavyRain	Heavy rainfall, limiting visibility to 50 m or less.
	...	

[Table 28](#) defines the characteristics of the PublicEventTypeList class.

Table 28 — PublicEventTypeList Class

Class <<CodeList>>: PublicEventTypeList		
Definition: Type of public event which could disrupt traffic.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/PublicEventTypeList.xml
Code (example)	Value	Definition
28	fair	Periodic (e.g. annual), often traditional, gathering for entertainment or trade promotion, which could disrupt traffic.
61	marathon	Marathon, cross-country or road running event that could disrupt traffic.
	...	

[Table 29](#) defines the characteristics of the ReservationTypeList class.

Table 29 — ReservationTypeList Class

Class <<CodeList>>: ReservationTypeList		
Definition: List of the different types of reservation of a time frame.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/ReservationTypeList.xml
Code (example)	Value	Definition
0	mandatory	Reservation is mandatory
1	notAvailable	Reservation is not possible.
	...	

[Table 30](#) defines the characteristics of the RoadLayoutManagementTypeList class.

Table 30 — RoadLayoutManagementTypeList Class

Class <<CodeList>>: RoadLayoutManagementTypeList		
Definition: Management actions relating to road, carriageway or lane usage.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/RoadLayoutManagementTypeList.xml
Code (example)	Value	Definition
0	carPoolLaneInOperation	Dedicated car pool lane(s) is/are in operation for vehicles carrying at least the specified number of occupants.
13	laneClosures	Lane closures are in operation at the specified location for vehicles with the specified characteristics or all, if none defined, in the specified direction.
	...	

[Table 31](#) defines the characteristics of the RoadsideAssistanceTypeList class.

Table 31 — RoadsideAssistanceTypeList Class

Class <<CodeList>>: RoadsideAssistanceTypeList		
Definition: Types of roadside assistance.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/RoadsideAssistanceTypeList.xml
Code (example)	Value	Definition
0	airAmbulance	Air ambulance assistance.
4	foodDelivery	Food delivery.
	...	

[Table 32](#) defines the characteristics of the RoadSurfaceConditionTypeList class.

Table 32 — RoadSurfaceConditionTypeList Class

Class <<CodeList>>: RoadSurfaceConditionTypeList		
Definition: Types of road surface conditions which are related or not to the weather.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/RoadSurfaceConditionTypeList.xml
Code (example)	Value	Definition
0	blackIce	Severe skid risk due to black ice (i.e. clear ice, which is impossible or very difficult to see).
2	looseChippings	Increased skid risk and injury risk due to loose chippings on road.
	...	

[Table 33](#) defines the characteristics of the SourceTypeList class.

Table 33 — SourceTypeList Class

Class <<CodeList>>: SourceTypeList		
Definition: Type of sources from which situation information may be derived.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/SourceTypeList.xml
Code (example)	Value	Definition
1	cameraObservation	A camera observation (either still or video camera).
10	policePatrol	A police patrol.
	...	

[Table 34](#) defines the characteristics of the SpeedManagementTypeList class.

Table 34 — SpeedManagementTypeList Class

Class <<CodeList>>: SpeedManagementTypeList		
Definition: Management actions relating to speed.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/SpeedManagementTypeList.xml
Code (example)	Value	Definition
0	activeSpeedControlInOperation	Automatic speed control measures are in place at the specified location, whereby speed limits are set by an automatic system which is triggered by traffic sensing equipment.
4	reduceYourSpeed	Reduce your speed.
	...	

[Table 35](#) defines the characteristics of the StationTypeList class.

Table 35 — StationTypeList Class

Class <<CodeList>>: StationTypeList		
Definition: A list of the different station types (service levels) to be expected for fuelling or charging, and payment.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/StationTypeList.xml
Code (example)	Value	Definition
0	fullService	Full fuelling service carried out by an employee.
1	selfService	Self-service for fuelling.
	...	

[Table 36](#) defines the characteristics of the VehicleEquipmentList class.

Table 36 — VehicleEquipmentList Class

Class <<CodeList>>: VehicleEquipmentList		
Definition: List of the types of vehicle equipment in use or on board.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/VehicleEquipmentList.xml
Code (example)	Value	Definition
2	snowChainInUse	Vehicle using snow chains.
5	withoutSnowTyresOrChainsOnBoard	Vehicle which is not carrying on board snow tyres or chains.
	...	

[Table 37](#) defines the characteristics of the VehicleObstructionType class.

Table 37 — VehicleObstructionTypeList Class

Class <<CodeList>>: VehicleObstructionTypeList		
Definition: Types of obstructions involving vehicles.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/VehicleObstructionTypeList.xml
Code (example)	Value	Definition
15	slowVehicle	A vehicle travelling at well below normal highway speeds which can potentially cause traffic disruption.
20	vehicleOnFire	A vehicle is or has been on fire and can potentially cause traffic disruption.
	...	

[Table 38](#) defines the characteristics of the VehicleToGridCommunicationTypeList class.

Table 38 — VehicleToGridCommunicationTypeList Class

Class <<CodeList>>: VehicleToGridCommunicationTypeList		
Definition: A list of communication types for communication between vehicles and the grid.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/VehicleToGridCommunicationTypeList.xml
Code (example)	Value	Definition
1	iso15118	Communication according to ISO 15118-20.
3	other	Communication according to other guidelines or specifications.
	...	

[Table 39](#) defines the characteristics of the VehicleTypeList class.

Table 39 — VehicleTypeList Class

Class <<CodeList>>: VehicleTypeList		
Definition: Types of vehicle. (SOURCE: ISO 3833:1977)		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/VehicleTypeList.xml
Code (example)	Value	Definition
6	bus	Bus.
11	carWithTrailer	Car towing a trailer.
	...	

[Table 40](#) defines the characteristics of the VehicleUsageList class.

Table 40 — VehicleUsageList Class

Class <<CodeList>>: VehicleUsageList		
Definition: List of usage type of vehicles.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/VehicleUsageList.xml
Code (example)	Value	Definition
0	agricultural	Vehicle used for agricultural purposes.
2	cityLogistics	Vehicles that are used to deliver goods in a city area.
	...	

[Table 41](#) defines the characteristics of the WinterEquipmentManagementTypeList class.

Table 41 — WinterEquipmentManagementTypeList Class

Class <<CodeList>>: WinterEquipmentManagementTypeList		
Definition: Instructions relating to the use of winter equipment.		
Stereotypes: «CodeList»		
Tagged values:		asDictionary = true codeList = https://standards.iso.org/iso/ts/22726/-2/ed-1/en/WinterEquipmentManagementTypeList.xml
Code (example)	Value	Definition
0	doNotUseStudTyres	Do not use stud tyres.
4	winterEquipmentOnBoardRequired	The carrying of winter equipment (snow chains and/or snow tyres) is required.
	...	

7.5 "DataManagement" package

7.5.1 Overall presentation

The DataManagement package shall contain a collection of information describing data types used for data management of situation elements in this document.

[Figure 5](#) pictures the classes of the package including the relationships between them.

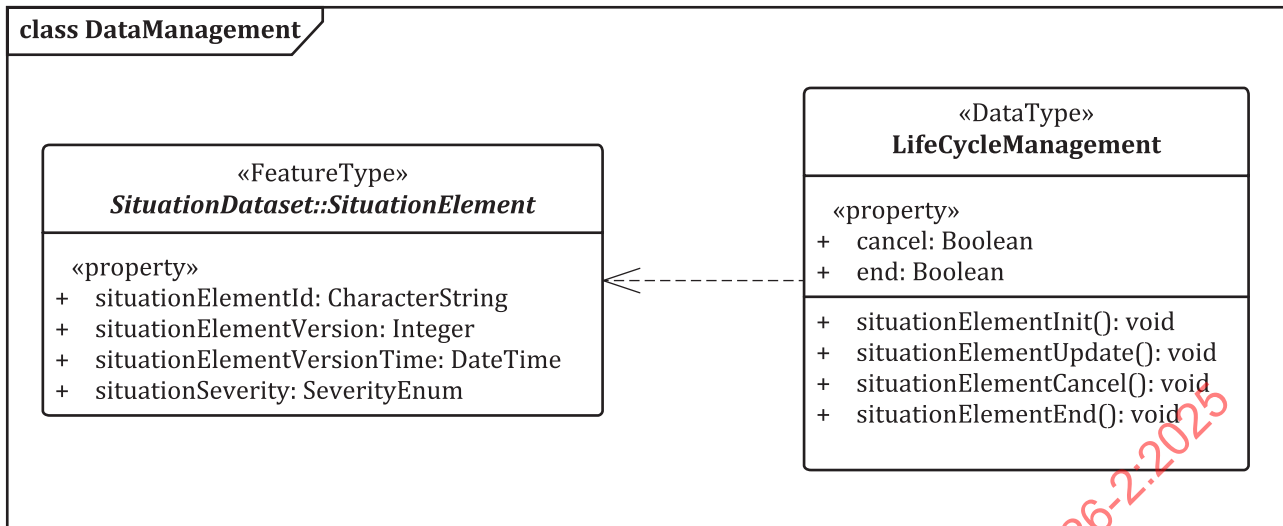


Figure 5 — The "DataManagement" class diagram

7.5.2 Class definition

The tables below define the different classes used in this package.

[Table 42](#) defines the characteristics of the LifeCycleManagement class.

Table 42 — LifeCycleManagement Class

Class <<DataType>>: LifeCycleManagement		
Definition: Information relating to the life cycle management of the situation element.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: cancel		
	Definition:	Indication that all the element information previously sent is not considered valid, due to an incorrect content (cancellation).
	Value type:	Boolean
	Multiplicity:	
Attribute: end		
	Definition:	A binary attribute specifying whether the situation element is finished (true) or not (false).
	Value type:	Boolean
	Multiplicity:	

7.6 "DataQuality" package

7.6.1 Overall presentation

The DataQuality package shall contain a collection of information describing data types used for qualifying data quality in this document.

[Figure 6](#) pictures the classes of the package including the relationships between them.

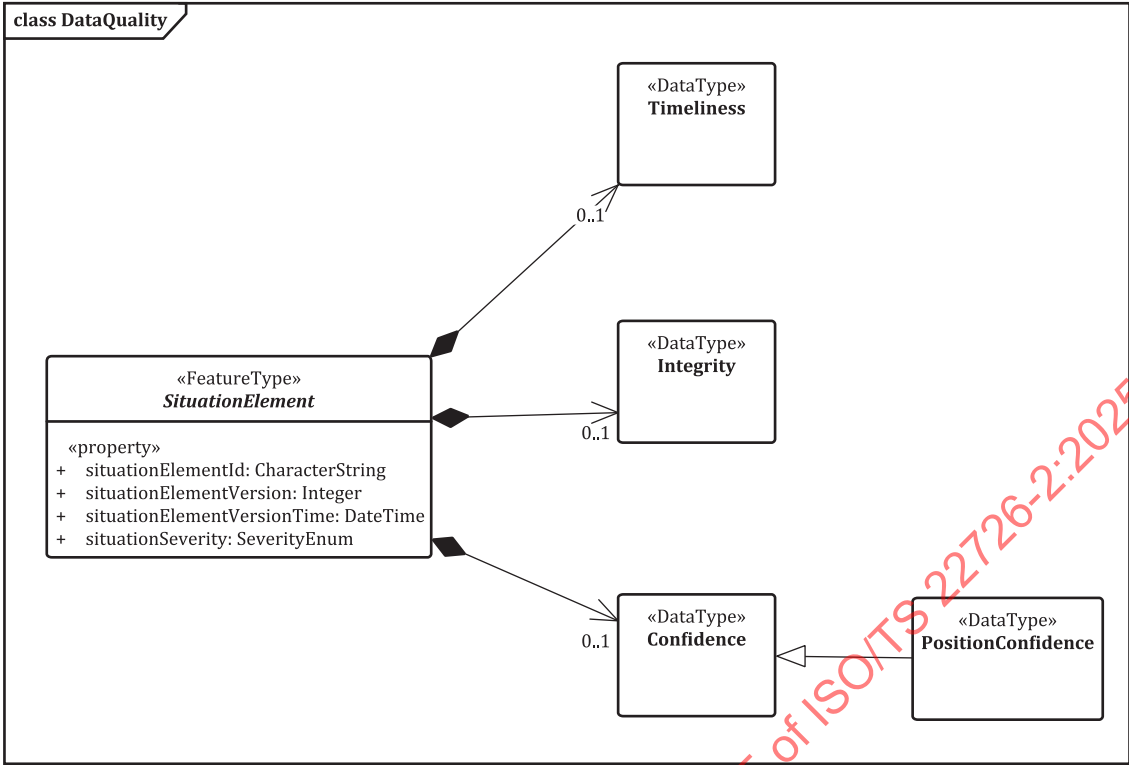


Figure 6 — The "DataQuality" class diagram

7.6.2 Class definition

The tables below define the different classes used in this package.

[Table 43](#) defines the characteristics of the Confidence class.

Table 43 — Confidence Class

Class <<DataType>>: Confidence
Definition: Indication of the correctness and accuracy of the attributes of the related information.
Subtype of:
Stereotypes: «DataType»

[Table 44](#) defines the characteristics of the Integrity class.

Table 44 — Integrity Class

Class <<DataType>>: Integrity
Definition: Property that data have not been altered or destroyed in an unauthorized manner.
Subtype of:
Stereotypes: «DataType»

[Table 45](#) defines the characteristics of the Timeliness class.

Table 45 — Timeliness Class

Class <<DataType>>: Timeliness
Definition: Degree to which information is delivered within time limits (adapted from ISO/IEC TS 25011:2017).
Subtype of:
Stereotypes: «DataType»

7.7 "DataTypes" package

7.7.1 Overall presentation

The DataTypes package shall contain a collection of information describing data types used throughout the generic model in this document.

Figure 7 pictures the classes of the package including the relationships between them.

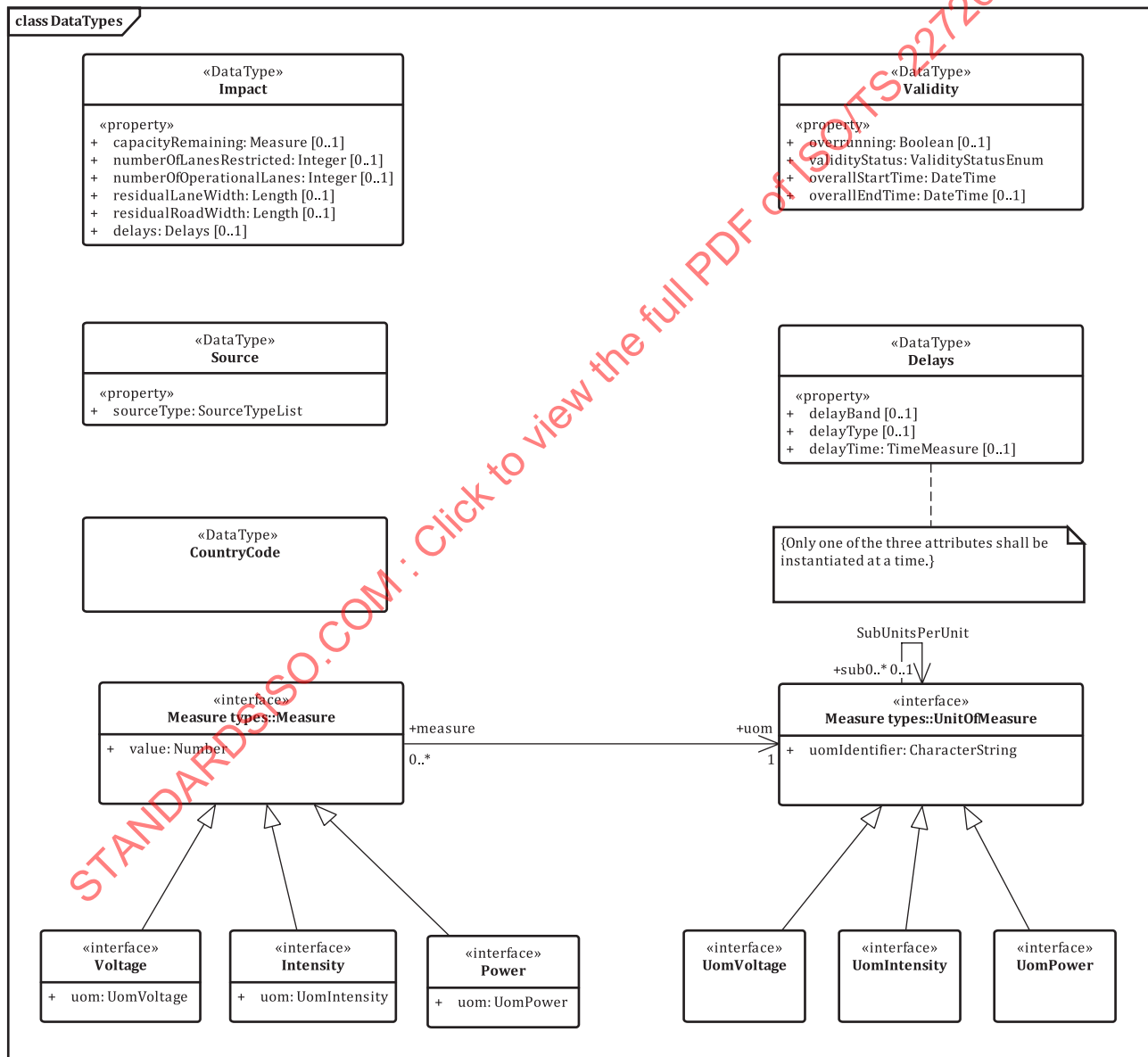


Figure 7 — The "DataTypes" class diagram

7.7.2 Class definition

The tables below define the different classes used in this package.

[Table 46](#) defines the characteristics of the CountryCode class.

Table 46 — CountryCode Class

Class <<DataType>>: CountryCode
Definition: ISO 3166-1 alpha-2 two-letter country code.
Subtype of:
Stereotypes: «DataType»

[Table 47](#) defines the characteristics of the Delays class.

Table 47 — Delays Class

Class <<DataType>>: Delays		
Definition: The details of the delays being caused by the situation element defined in the situation element. It is recommended to only use one of the optional attributes to avoid confusion.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: delayBand		
	Definition:	The time band within which the additional travel time due to adverse travel conditions of any kind falls, when compared to "normal conditions".
	Value type:	
	Multiplicity:	[0..1]
Attribute: delayType		
	Definition:	Coarse classification of the delay.
	Value type:	
	Multiplicity:	[0..1]
Attribute: delayTime		
	Definition:	The value of the additional travel time due to adverse travel conditions of any kind, when compared to "normal conditions".
	Value type:	TimeMeasure
	Multiplicity:	[0..1]

[Table 48](#) defines the characteristics of the Impact class.

Table 48 — Impact Class

Class <<DataType>>: Impact		
Definition: An assessment of the impact that an event or operator action defined by the situation element has on the driving conditions.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: capacityRemaining		
	Definition:	The ratio of current capacity to the normal (free flow) road capacity in the defined direction, expressed as a percentage. Capacity is the maximum number of vehicles that can pass a specified point on the road, in unit time given the specified conditions.
	Value type:	Measure
	Multiplicity:	[0..1]

Table 48 (continued)

Attribute: numberOfLanesRestricted		
	Definition:	The number of normally usable lanes on the carriageway which are now restricted either fully or partially (this can include the hard shoulder if it is normally available for operational use, e.g. in hard shoulder running schemes).
	Value type:	Integer
	Multiplicity:	[0..1]
Attribute: numberOfOperationalLanes		
	Definition:	The number of usable lanes in the specified direction which remain fully operational (this can include the hard shoulder if it is being used as an operational lane).
	Value type:	Integer
	Multiplicity:	[0..1]
Attribute: residualLaneWidth		
	Definition:	The width of lanes after any lane narrowing.
	Value type:	Length
	Multiplicity:	[0..1]
Attribute: residualRoadWidth		
	Definition:	The total width of the combined operational lanes in the specified direction.
	Value type:	Length
	Multiplicity:	[0..1]
Attribute: delays		
	Definition:	The details of the delays being caused by the situation element defined in the situation record. It is recommended to only use one of the optional attributes to avoid confusion.
	Value type:	Delays
	Multiplicity:	[0..1]

[Table 49](#) defines the characteristics of the Source class.

Table 49 — Source Class

Class <<DataType>>: Source		
Definition: Details of the source from which the information was obtained.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: sourceType		
	Definition:	Information about the technology used for measuring the data or the method used for obtaining qualitative descriptions relating to this version of the information.
	Value type:	SourceTypeList
	Multiplicity:	

[Table 50](#) defines the characteristics of the Validity class.

Table 50 — Validity Class

Class <<DataType>>: Validity		
Definition: Specification of validity, either explicitly or by a validity time period specification which can be discontinuous.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: overrunning		
	Definition:	The activity or action described by the situation element is still in progress, overrunning its planned duration as indicated in a previous version of this element or even in current version.
	Value type:	Boolean
	Multiplicity:	[0..1]
Attribute: validityStatus		
	Definition:	Specification of validity, either explicitly overriding the validity time specification or confirming it.
	Value type:	ValidityStatusEnum
	Multiplicity:	
Attribute: overallStartTime		
	Definition:	Start of bounding period of validity defined by date and time.
	Value type:	DateTime
	Multiplicity:	
Attribute: overallEndTime		
	Definition:	End of bounding period of validity defined by date and time.
	Value type:	DateTime
	Multiplicity:	[0..1]

[Table 51](#) defines the characteristics of the Intensity class.

Table 51 — Intensity Class

Class: Intensity		
Definition: Measurement of a stream of charged particles, such as electrons or ions, moving through an electrical conductor or space.		
Abstract: Abstract		
Subtype of: Measure		
Stereotypes:		
Attribute: uom		
	Definition:	Units for measuring electric intensity in this measure (generally in ampere).
	Value type:	UomIntensity
	Multiplicity:	

[Table 52](#) defines the characteristics of the Power class.

Table 52 — Power Class

Class: Power		
Definition: Amount of energy transferred or converted per unit time.		
Abstract: Abstract		
Subtype of: Measure		
Stereotypes:		
Attribute: uom		
	Definition:	Units for measuring electric power in this measure.
	Value type:	UomPower
	Multiplicity:	

[Table 53](#) defines the characteristics of the UomIntensity class.

Table 53 — UomIntensity Class

Class: UomIntensity		
Definition: Defines the unit for measuring intensity of energy		
Abstract: Abstract		
Subtype of: UnitOfMeasure		
Stereotypes:		

[Table 54](#) defines the characteristics of the UomPower class.

Table 54 — UomPower Class

Class: UomPower		
Definition: Defines the unit for measuring the amount of energy		
Abstract: Abstract		
Subtype of: UnitOfMeasure		
Stereotypes:		

[Table 55](#) defines the characteristics of the UomVoltage class.

Table 55 — UomVoltage Class

Class: UomVoltage		
Definition: Defines the unit for measuring voltage of electricity		
Abstract: Abstract		
Subtype of: UnitOfMeasure		
Stereotypes:		

[Table 56](#) defines the characteristics of the Voltage class.

Table 56 — Voltage Class

Class: Voltage		
Definition: The difference in electric potential between two points. Also named electric tension or electric potential difference.		
Abstract: Abstract		
Subtype of: Measure		
Stereotypes:		
Attribute: uom		

Table 56 (continued)

	Definition:	Units for measuring electric tension in this measure (generally in volt).
	Value type:	UomVoltage
	Multiplicity:	

7.8 "VehicleCharacteristics" package

7.8.1 Overall presentation

The package "VehicleCharacteristics" shall comprise a sub-model for defining the characteristics of vehicles. The information that is modelled in the "VehicleCharacteristics" package shall identify a set of vehicle characteristics, some of whose values can be specified using comparative operators (e.g. greater than 'x' but less than 'y').

Figure 8 pictures the classes of the package including the relationships between them.

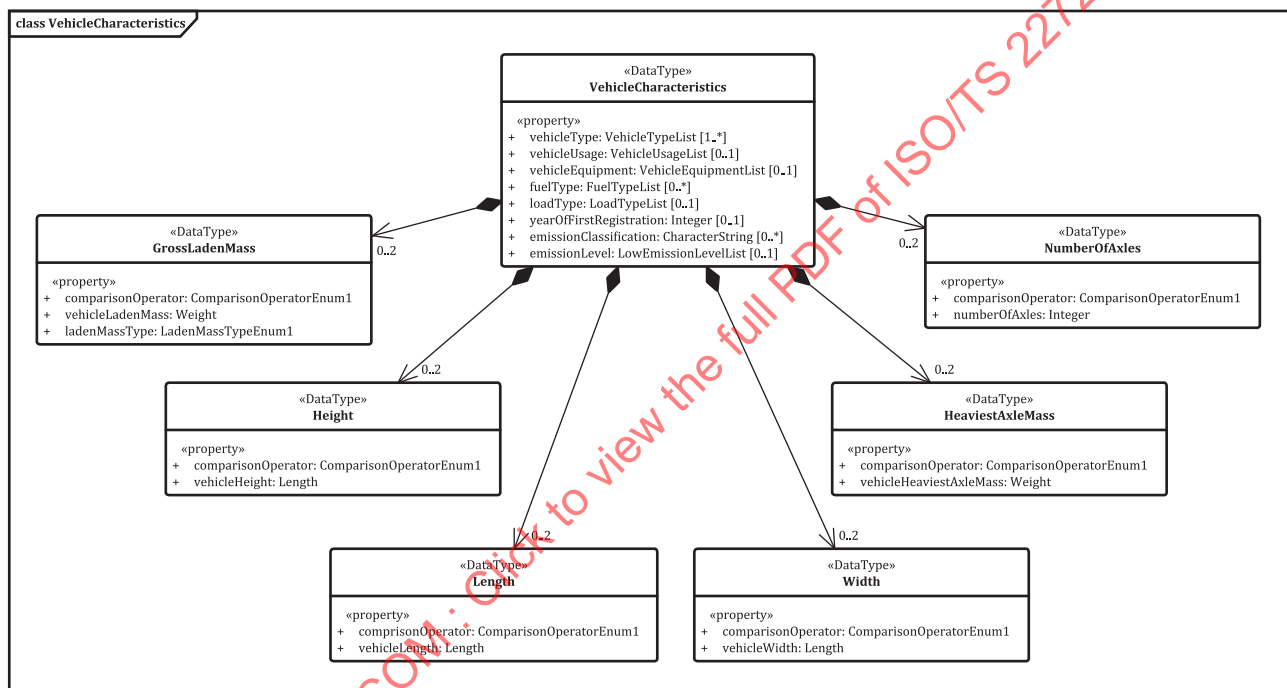


Figure 8 — The "VehicleCharacteristics" class diagram

7.8.2 Class definition

The tables below define the different classes used in this package.

Table 57 defines the characteristics of the GrossLadenMass class.

Table 57 — GrossLadenMass Class

Class <<DataType>>: GrossLadenMass		
Definition: Gross laden mass characteristic of a vehicle.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: comparisonOperator		
	Definition:	The operator to be used in the vehicle characteristic comparison operation.

Table 57 (continued)

	Value type:	ComparisonOperatorEnum1
	Multiplicity:	
Attribute: vehicleLadenMass		
	Definition:	The gross laden mass of the vehicle and its load, including any trailers.
	Value type:	Weight
	Multiplicity:	
Attribute: ladenMassType		
	Definition:	The meaning of the weight value
	Value type:	LadenMassTypeEnum1
	Multiplicity:	

[Table 58](#) defines the characteristics of the HeaviestAxleMass class.

Table 58 — HeaviestAxleMass Class

Class <<DataType>>: HeaviestAxleMass		
Definition: Laden mass characteristic of the heaviest axle on the vehicle.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: comparisonOperator		
	Definition:	The operator to be used in the vehicle characteristic comparison operation.
	Value type:	ComparisonOperatorEnum1
	Multiplicity:	
Attribute: vehicleHeaviestAxleMass		
	Definition:	The mass of the heaviest axle on the vehicle.
	Value type:	Weight
	Multiplicity:	

[Table 59](#) defines the characteristics of the Height class.

Table 59 — Height Class

Class <<DataType>>: Height		
Definition: Height characteristic of a vehicle.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: comparisonOperator		
	Definition:	The operator to be used in the vehicle characteristic comparison operation.
	Value type:	ComparisonOperatorEnum1
	Multiplicity:	
Attribute: vehicleHeight		
	Definition:	The height of the highest part, excluding aerials, of an individual vehicle above the road surface.
	Value type:	Length
	Multiplicity:	

[Table 60](#) defines the characteristics of the Length class.

Table 60 — Length Class

Class <<DataType>>: Length		
Definition: Length characteristic of a vehicle.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: comparisonOperator		
	Definition:	The operator to be used in the vehicle characteristic comparison operation.
	Value type:	ComparisonOperatorEnum1
	Multiplicity:	
Attribute: vehicleLength		
	Definition:	The overall distance between the front and back of an individual vehicle, including the length of any trailers, couplings, embedded features, etc.
	Value type:	Length
	Multiplicity:	

[Table 61](#) defines the characteristics of the NumberOfAxles class.

Table 61 — NumberOfAxles Class

Class <<DataType>>: NumberOfAxles		
Definition: Number of axles characteristic of a vehicle.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: comparisonOperator		
	Definition:	The operator to be used in the vehicle characteristic comparison operation.
	Value type:	ComparisonOperatorEnum1
	Multiplicity:	
Attribute: numberOfAxles		
	Definition:	The total number of axles of an individual vehicle.
	Value type:	Integer
	Multiplicity:	

[Table 62](#) defines the characteristics of the VehicleCharacteristics class.

Table 62 — VehicleCharacteristics Class

Class <<DataType>>: VehicleCharacteristics		
Definition: The characteristics of a vehicle, e.g. lorry of gross weight greater than 30 tonnes.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: vehicleType		
	Definition:	Vehicle type.
	Value type:	VehicleTypeList
	Multiplicity:	[1..*]
Attribute: vehicleUsage		
	Definition:	The type of usage of the vehicle (i.e. for what purpose is the vehicle being used).
	Value type:	VehicleUsageList
	Multiplicity:	[0..1]

Table 62 (continued)

Attribute: vehicleEquipment		
	Definition:	The type of equipment in use or on board the vehicle.
	Value type:	VehicleEquipmentList
	Multiplicity:	[0..1]
Attribute: fuelType		
	Definition:	The types of fuel used by the vehicle.
	Value type:	FuelTypeList
	Multiplicity:	[0..*]
Attribute: loadType		
	Definition:	The type of load carried by the vehicle, especially in respect of dangerous/hazardous loads.
	Value type:	LoadTypeList
	Multiplicity:	[0..1]
Attribute: yearOfFirstRegistration		
	Definition:	Year of first registration of the vehicle.
	Value type:	Integer
	Multiplicity:	[0..1]
Attribute: emissionClassification		
	Definition:	Classification value for the vehicle emission.
	Value type:	CharacterString
	Multiplicity:	[0..*]
Attribute: emissionLevel		
	Definition:	The low emission level of a vehicle.
	Value type:	LowEmissionLevelList
	Multiplicity:	[0..1]

Table 63 defines the characteristics of the Width class.

Table 63 — Width Class

Class <<DataType>>: Width		
Definition: Width characteristic of a vehicle.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: comparisonOperator		
	Definition:	The operator to be used in the vehicle characteristic comparison operation.
	Value type:	ComparisonOperatorEnum1
	Multiplicity:	
Attribute: vehicleWidth		
	Definition:	The maximum width of an individual vehicle, including any features embedded or fixed on it.
	Value type:	Length
	Multiplicity:	

7.9 "Enumerations" package

7.9.1 Overall presentation

A collection of lists of enumeration values used throughout the generic model in this document.

[Figure 9](#) pictures the classes of the package including the relationships between them.

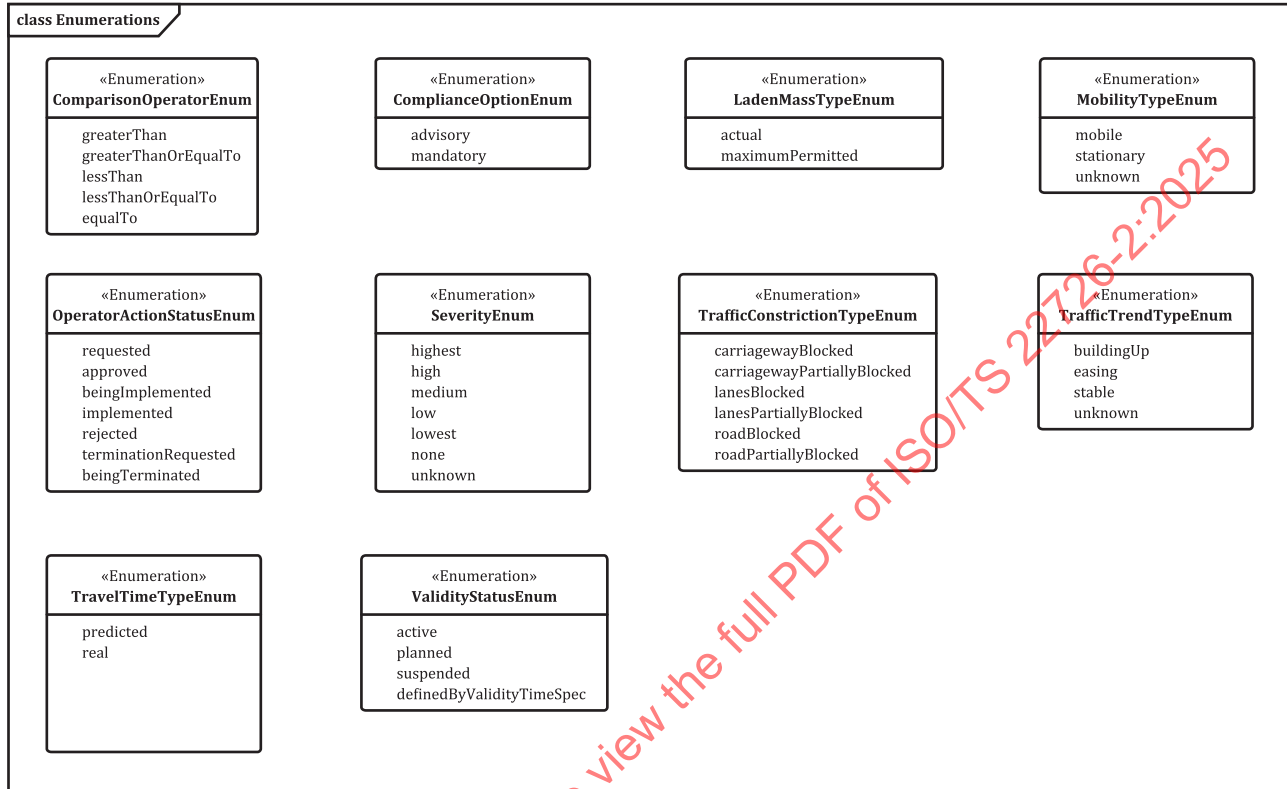


Figure 9 — The "Enumerations" class diagram

7.9.2 Class definition

The tables below define the different classes used in this package.

[Table 64](#) defines the characteristics of the ComparisonOperatorEnum class.

Table 64 — ComparisonOperatorEnum Class

Class <<Enumeration>>: ComparisonOperatorEnum		
Definition: Logical comparison operations.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	greaterThan	Logical comparison operator of "greater than".
	greaterThanOrEqualTo	Logical comparison operator of "greater than or equal to".
	lessThan	Logical comparison operator of "less than".
	lessThanOrEqualTo	Logical comparison operator of "less than or equal to".
	equalTo	Logical comparison operator of "equal to".

[Table 65](#) defines the characteristics of the ComplianceOptionEnum class.

Table 65 — ComplianceOptionEnum Class

Class <<Enumeration>>: ComplianceOptionEnum		
Definition: Types of compliance.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	Advisory	Advisory compliance.
	Mandatory	Mandatory compliance.

[Table 66](#) defines the characteristics of the LadenMassTypeEnum class.

Table 66 — LadenMassTypeEnum Class

Class <<Enumeration>>: LadenMassTypeEnum		
Definition: Type of mass - describing the meaning of a vehicle mass value.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	actual	The laden mass is the actual laden mass for a vehicle.
	maximumPermitted	The laden mass is the maximum permitted laden mass for a vehicle.

[Table 67](#) defines the characteristics of the MobilityTypeEnum class.

Table 67 — MobilityTypeEnum Class

Class <<Enumeration>>: MobilityTypeEnum		
Definition: Types of mobility relating to a situation element.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	mobile	The described element of a situation is moving.
	stationary	The described element of a situation is stationary.
	unknown	The mobility of the described element of a situation is unknown.

[Table 68](#) defines the characteristics of the OperatorActionStatusEnum class.

Table 68 — OperatorActionStatusEnum Class

Class <<Enumeration>>: OperatorActionStatusEnum		
Definition: List of statuses associated with operator actions.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	requested	A request, either internal or external, has been received to implement an action. It has neither been approved nor has any activity yet been undertaken to implement the action.
	approved	The action has been approved by the recipient of the request but activity to implement the action has not yet commenced.
	beingImplemented	The action has been approved by the recipient of the request but activity to implement the action has not yet commenced.
	implemented	The action is fully implemented.

Table 68 (continued)

	rejected	The action has been rejected by the recipient of the request and hence is not implemented.
	terminationRequested	A request, either internal or external, has been received to terminate the action, but activity to terminate the action has not yet commenced.
	beingTerminated	The action is in the process of being terminated either because the action has reached the end of its validity period or because new circumstances have arisen and its termination has been requested, e.g. because of a traffic jam on the alternative route.

[Table 69](#) defines the characteristics of the SeverityEnum class.

Table 69 — SeverityEnum Class

Class <<Enumeration>>: SeverityEnum		
Definition: Levels of severity.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	highest	Perceived by supplier as being of the highest level.
	high	Perceived by supplier as being of a high level.
	medium	Perceived by supplier as being of a medium level.
	low	Perceived by supplier as being of a low level.
	lowest	Perceived by supplier as being of the lowest level.
	none	Perceived by supplier as having a severity rating of none.
	unknown	Perceived by supplier as being of an unknown level.

[Table 70](#) defines the characteristics of the TrafficConstrictionTypeEnum class.

Table 70 — TrafficConstrictionTypeEnum Class

Class <<Enumeration>>: TrafficConstrictionTypeEnum		
Definition: The type of constriction to which traffic is subjected as a result of an unplanned event.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	carriagewayBlocked	The carriageway is totally obstructed in the specified direction due to an unplanned event.
	carriagewayPartiallyBlocked	The carriageway is partially obstructed in the specified direction due to an unplanned event.
	lanesBlocked	One or more lanes is totally obstructed in the specified direction due to an unplanned event.
	lanesPartiallyBlocked	One or more lanes is partially obstructed in the specified direction due to an unplanned event.
	roadBlocked	The road is totally obstructed, for all vehicles in both directions, due to an unplanned event.
	roadPartiallyBlocked	The road is partially obstructed in both directions due to an unplanned event.

[Table 71](#) defines the characteristics of the TrafficTrendTypeEnum class.

Table 71 — TrafficTrendTypeEnum Class

Class <<Enumeration>>: TrafficTrendTypeEnum		
Definition: A characterization of the trend in the traffic conditions at the specified location and direction.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	buildingUp	Traffic conditions are changing from free-flow to heavy or slow service levels. Queues can also be expected.
	easing	Traffic conditions are changing from heavy or slow service levels to free-flow.
	stable	Traffic conditions are currently stable.
	unknown	The trend of traffic conditions is currently unknown.

[Table 72](#) defines the characteristics of the TravelTimeTypeEnum class.

Table 72 — TravelTimeTypeEnum Class

Class <<Enumeration>>: TravelTimeTypeEnum		
Definition: List of types of time needed to reach a given place, based on whether it is estimated or real.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	predicted	Travel time is the output of a prediction, for example a blend of current and historical data, or a traffic flow model using current measurements.
	real	Travel time is the current one i.e. derived from instantaneous measurements.

[Table 73](#) defines the characteristics of the ValidityStatusEnum class.

Table 73 — ValidityStatusEnum Class

Class <<Enumeration>>: ValidityStatusEnum		
Definition: Values of validity status that can be assigned to a described event, action or item.		
Stereotypes: «Enumeration»		
Code	Value	Definition
	active	The described event, action or item is currently active regardless of the definition of the validity time specification.
	planned	The described event, action or item is currently planned regardless of the definition of the validity time specification.
	suspended	The described event, action or item is currently suspended, that is inactive, regardless of the definition of the validity time specification.
	definedByValidityTime-Spec	The validity status of the described event, action or item is in accordance with the definition of the validity time specification.

7.10 "LocationReference" package

7.10.1 Overall presentation

The LocationReference package shall contain a collection of data and information constructs for location referencing in the generic model for this document.

[Figure 10](#) pictures the classes of the package including the relationships between them.

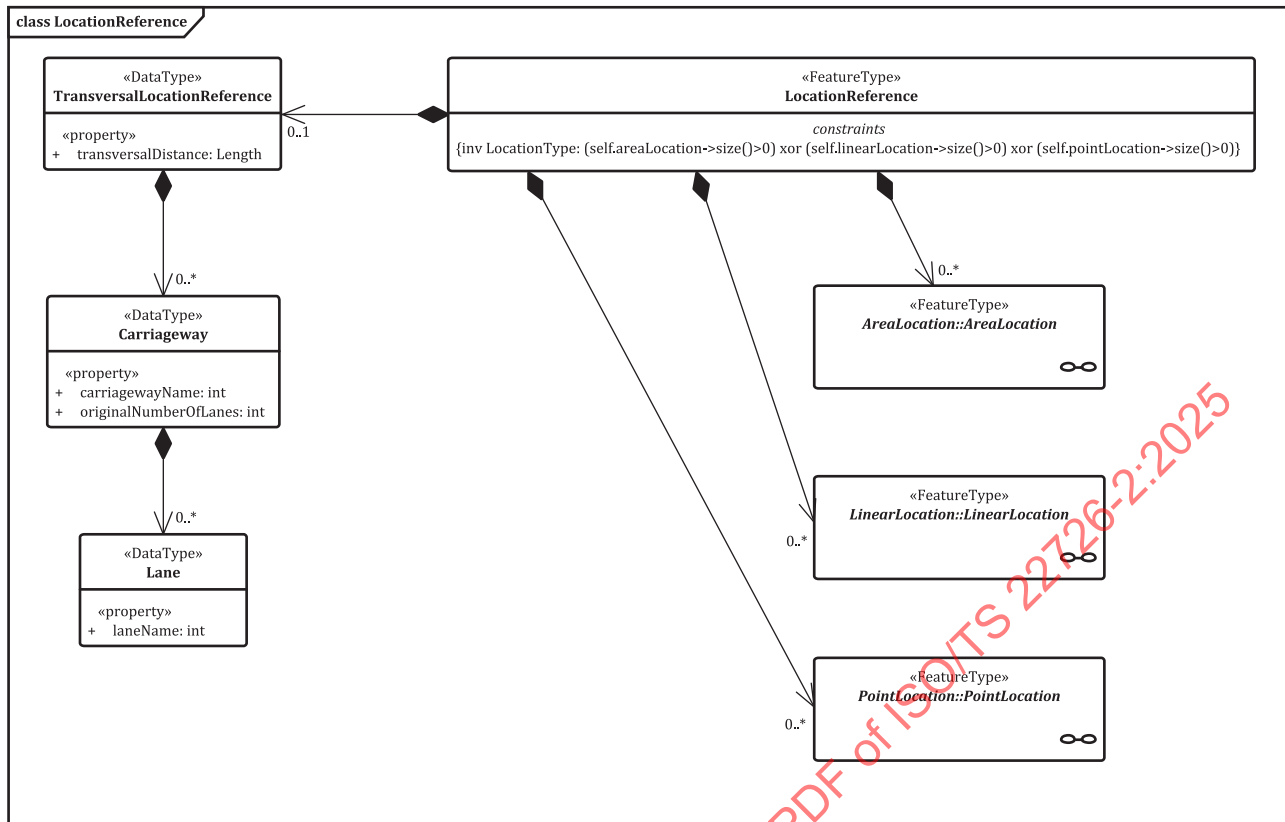


Figure 10 — The "LocationReference" class diagram

7.10.2 Class definition

The tables below define the different classes used in this package.

[Table 74](#) defines the characteristics of the Carriageway class.

Table 74 — Carriageway Class

Class <<DataType>>: Carriageway		
Definition: A part of the road or highway which is constructed for vehicular use specifying its name and the number of available driveable lanes		
Subtype of:		
Stereotypes: «DataType»		
Attribute: carriagewayName		
	Definition:	
	Value type:	int
	Multiplicity:	
Attribute: originalNumberOfLanes		
	Definition:	
	Value type:	int
	Multiplicity:	

[Table 75](#) defines the characteristics of the Lane class.

Table 75 — Lane Class

Class <<DataType>>: Lane		
Definition: A strip of carriageway intended to accommodate a single line of moving vehicles, frequently defined by carriageway marks.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: laneName		
	Definition:	
	Value type:	int
	Multiplicity:	

[Table 76](#) defines the characteristics of the LocationReference class.

Table 76 — LocationReference Class

Class <<FeatureType>>: LocationReference		
Definition: Represents one or more physically separate locations. Multiple locations may be related, as in an itinerary or route, or may be unrelated. One location reference should not use multiple location objects to represent the same physical location.		
Abstract:		
Subtype of:		
Stereotypes: «FeatureType»		
Constraint on class: <<Invariant>>		
Natural language: A location reference shall be of one and only one of the three types (point, linear or area).		
OCL: inv LocationType: (self.areaLocation->size()>0) XOR (self.linearLocation->size()>0) XOR (self.pointLocation->size()>0)		

[Table 77](#) defines the characteristics of the TransversalLocationReference class.

Table 77 — TransversalLocationReference Class

Class <<DataType>>: TransversalLocationReference		
Definition: A collection of transversal positional information that improves the precision of the location.		
Subtype of:		
Stereotypes: «DataType»		
Attribute: transversalDistance		
	Definition:	Represents the distance measured along a cross-section of a road from the centreline. When the feature is located on the left part of the road from its centreline, this value is negative, otherwise positive.
	Value type:	Length
	Multiplicity:	

7.11 "AreaLocation" package

7.11.1 Overall presentation

The AreaLocation package shall contain a collection of data and information constructs for location referencing using two-dimensional location, representing a geographical region on the surface of the Earth in the generic model for this document

[Figure 11](#) and [Figure 12](#) picture the classes of the package including the relationships between them.

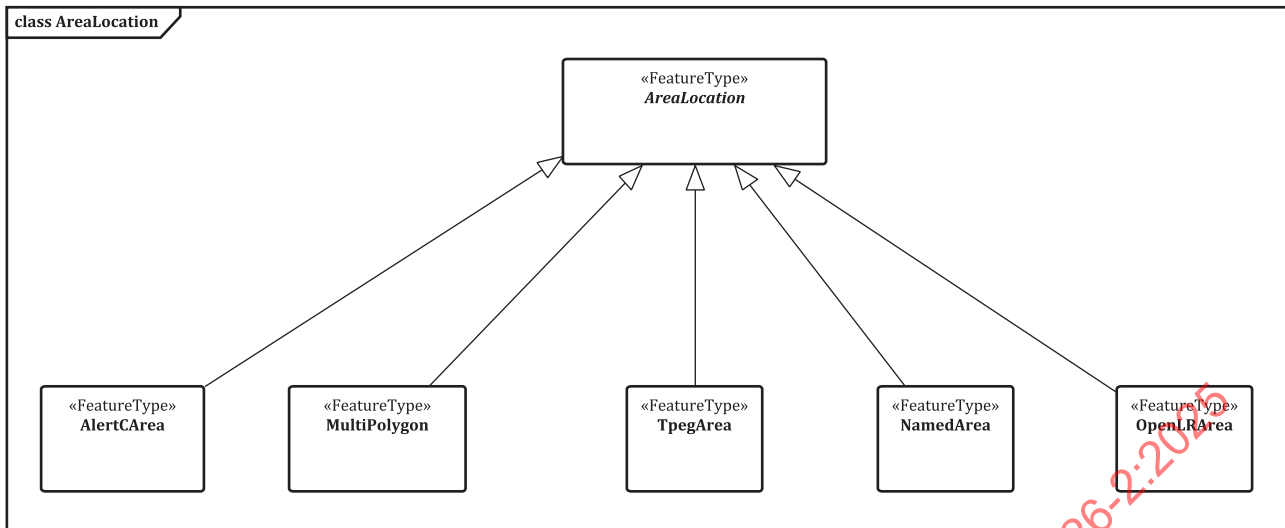


Figure 11 — The "AreaLocation" class diagram

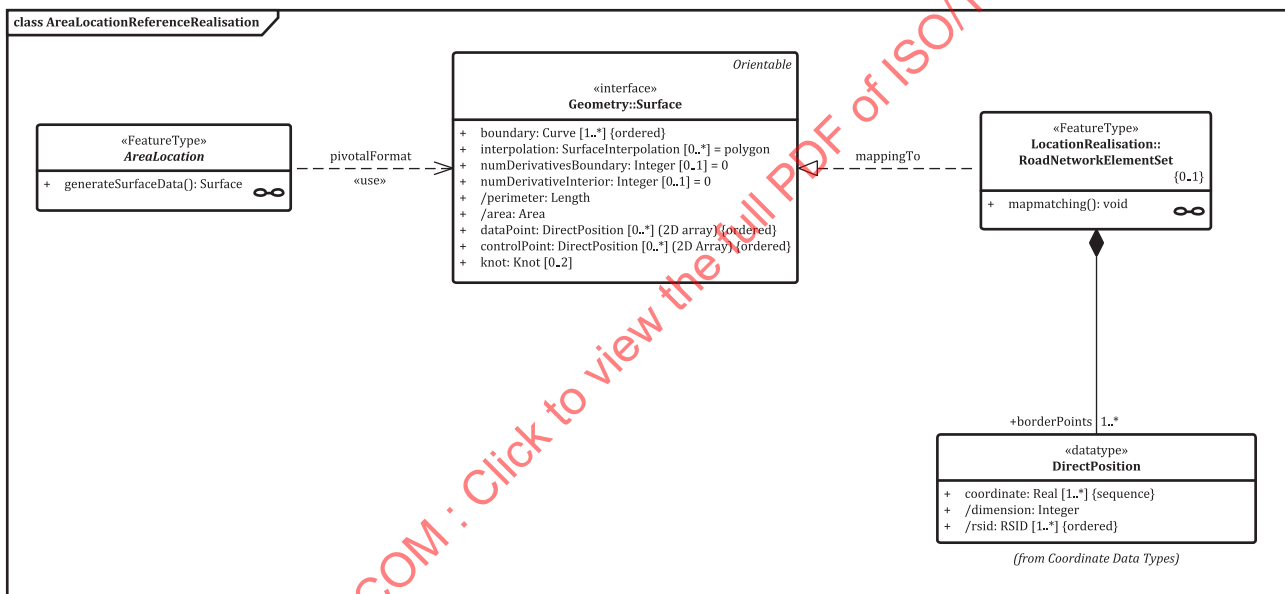


Figure 12 — The "AreaLocationReferenceRealisation" class diagram

7.11.2 Class definition

The tables below define the different classes used in this package.

[Table 78](#) defines the characteristics of the AlertCArea class.

Table 78 — AlertCArea Class

Class <<FeatureType>>: AlertCArea
Definition: Spatial location enclosed within two-dimensional boundary/boundaries across a defined surface as specified by ISO 17572-2.
Abstract:
Subtype of: AreaLocation
Stereotypes: «FeatureType»

[Table 79](#) defines the characteristics of the AreaLocation class.

Table 79 — AreaLocation Class

Class <<FeatureType>>: AreaLocation
Definition: Spatial location enclosed within two-dimensional boundary/boundaries across a defined surface.
Abstract: Abstract
Subtype of:
Stereotypes: «FeatureType»

[Table 80](#) defines the characteristics of the MultiPolygon class.

Table 80 — MultiPolygon Class

Class <<FeatureType>>: MultiPolygon
Definition: An area defined by a set of polygons according to GML as specified by ISO 19136-1
Abstract:
Subtype of: AreaLocation
Stereotypes: «FeatureType»

[Table 81](#) defines the characteristics of the NamedArea class.

Table 81 — NamedArea Class

Class <<FeatureType>>: NamedArea
Definition: An area defined by a name and/or in terms of known boundaries, such as country or county boundaries or allocated control area of particular authority. The attributes do not form a union; instead, the smallest intersection forms the resulting area.
Abstract:
Subtype of: AreaLocation
Stereotypes: «FeatureType»

[Table 82](#) defines the characteristics of the OpenLRArea class.

Table 82 — OpenLRArea Class

Class <<FeatureType>>: OpenLRArea
Definition: An area as defined by ISO/TS 21219-22
Abstract:
Subtype of: AreaLocation
Stereotypes: «FeatureType»

[Table 83](#) defines the characteristics of the TpegArea class.

Table 83 — TpegArea Class

Class <<FeatureType>>: TpegArea
Definition: An area as defined by ISO/TS 24530-2.
Abstract:
Subtype of: AreaLocation
Stereotypes: «FeatureType»

7.12 "LinearLocation" package

7.12.1 Overall presentation

The LinearLocation package shall contain a collection of data and information constructs for location referencing using a location with one-dimensional character.

Figure 13 and Figure 14 picture the classes of the package including the relationships between them.

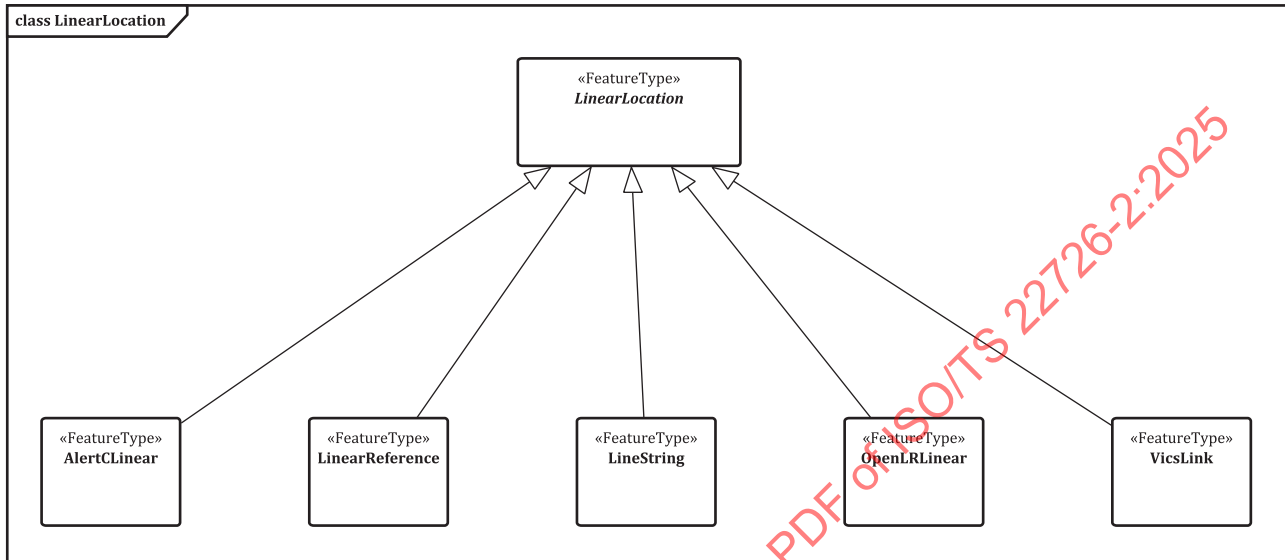


Figure 13 — The "LinearLocation" class diagram

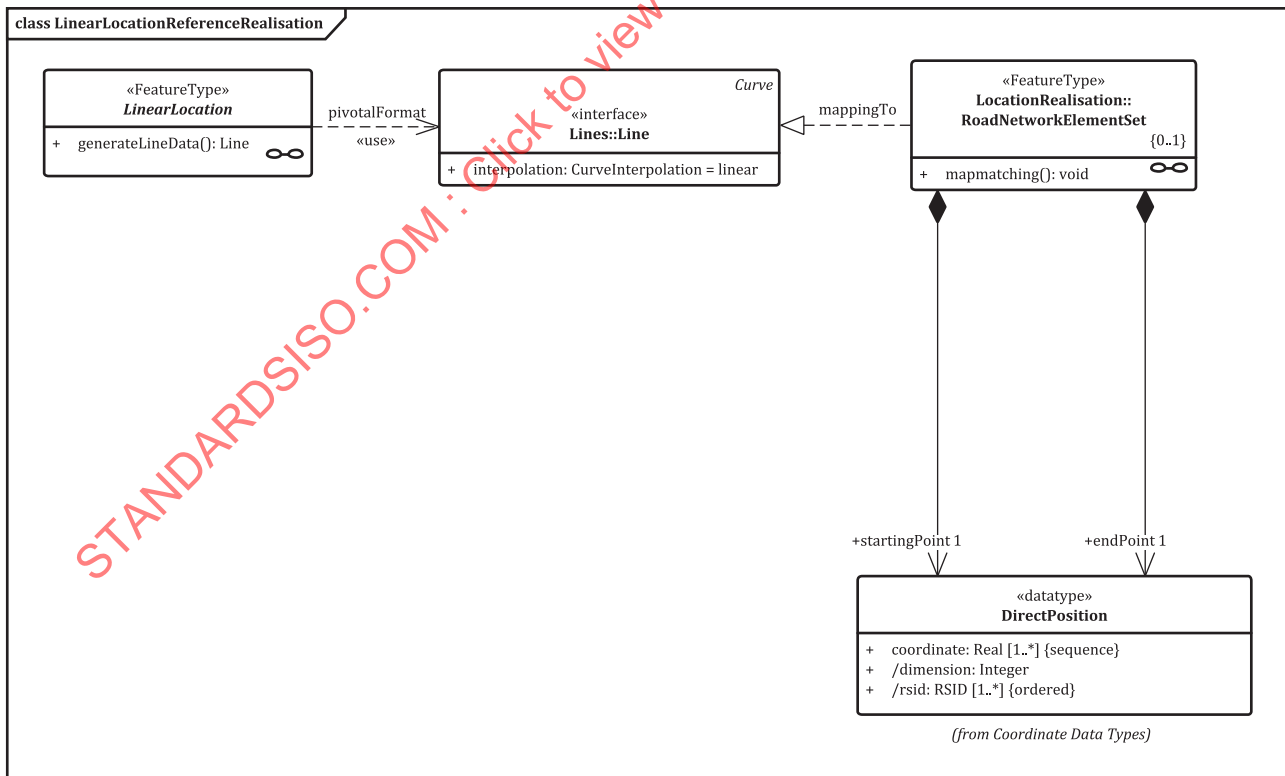


Figure 14 — The "LinearLocationReferenceRealisation" class diagram

7.12.2 Class definition

The tables below define the different classes used in this package.

[Table 84](#) defines the characteristics of the AlertCLinear class.

Table 84 — AlertCLinear Class

Class <<FeatureType>>: AlertCLinear
Definition: Spatial location that extends between two point locations as specified by ISO 17572-2.
Abstract:
Subtype of: LinearLocation
Stereotypes: «FeatureType»

[Table 85](#) defines the characteristics of the LinearLocation class.

Table 85 — LinearLocation Class

Class <<FeatureType>>: LinearLocation
Definition: Spatial location that extends between two point locations along a defined path.
Abstract: Abstract
Subtype of:
Stereotypes: «FeatureType»

[Table 86](#) defines the characteristics of the LinearReference class.

Table 86 — LinearReference Class

Class <<FeatureType>>: LinearReference
Definition: Based on ISO 19148.
Abstract:
Subtype of: LinearLocation
Stereotypes: «FeatureType»

[Table 87](#) defines the characteristics of the LineString class.

Table 87 — LineString Class

Class <<FeatureType>>: LineString
Definition: A line string, i.e. a curve composed of straight-line segments.
Abstract:
Subtype of: LinearLocation
Stereotypes: «FeatureType»

[Table 88](#) defines the characteristics of the OpenLRLinear class.

Table 88 — OpenLRLinear Class

Class <<FeatureType>>: OpenLRLinear
Definition: Spatial location that extends between two point locations as specified by ISO/TS 21219-22.
Abstract:
Subtype of: LinearLocation
Stereotypes: «FeatureType»

[Table 89](#) defines the characteristics of the VicsLink class.

Table 89 — VicsLink Class

Class <<FeatureType>>: VicsLink
Definition: Spatial location as referenced by ISO 17572-2 and specified by VICS Link specification.
Abstract:
Subtype of: LinearLocation
Stereotypes: «FeatureType»

7.13 "LocationRealisation" package

7.13.1 Overall presentation

The LocationRealisation package shall consist of information describing the road surface elements using the RoadNetworkElementSet class aggregating this document defined RoadNetworkElement class(es)

Figure 15 pictures the classes of the package including the relationships between them.

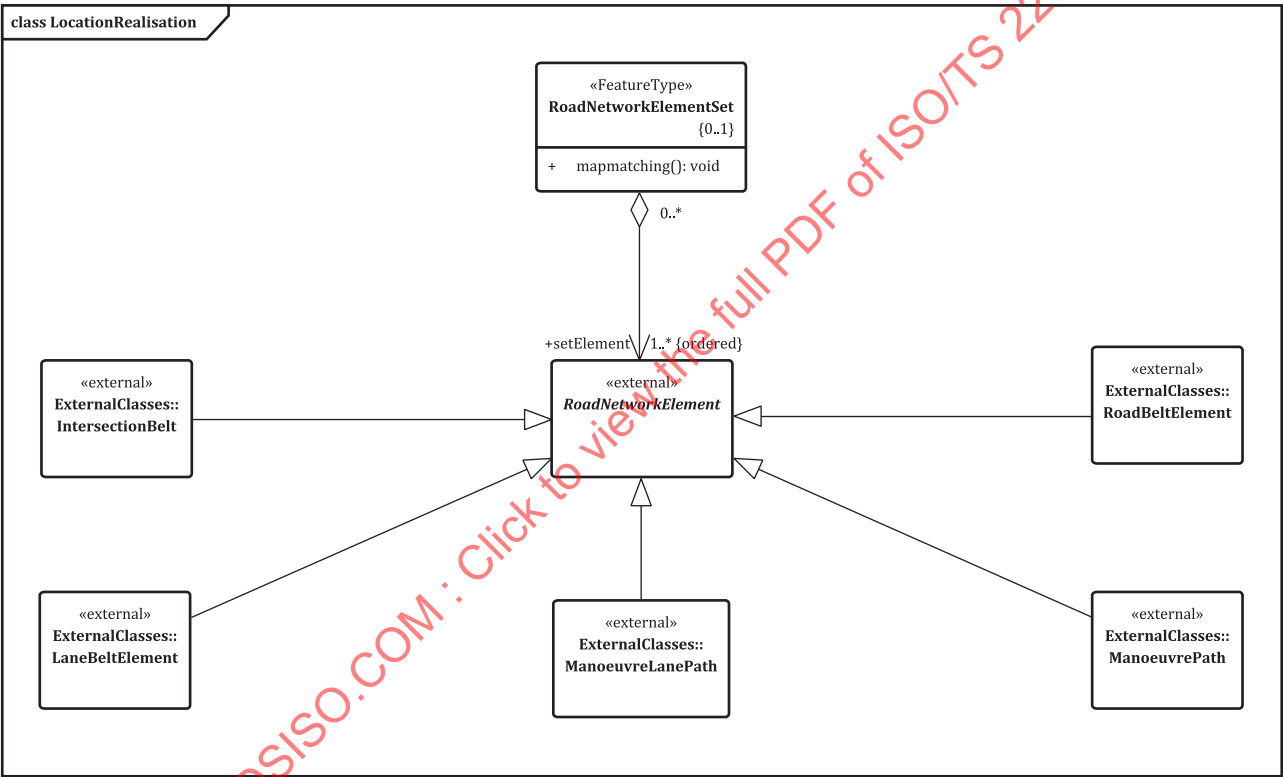


Figure 15 — The "LocationRealisation" class diagram

7.13.2 Class definition

The tables below define the different classes used in this package.

Table 90 defines the characteristics of the RoadNetworkElement class.

Table 90 — RoadNetworkElement Class

Class <<external>>: RoadNetworkElement
Definition: Any type of road surface-shaped component.
NOTE This can be either a road belt element, a lane belt element, a road belt section or an intersection belt.
Abstract: Abstract
Subtype of:
Stereotypes: «external»

[Table 91](#) defines the characteristics of the RoadNetworkElementSet class.

Table 91 — RoadNetworkElementSet Class

Class <<FeatureType>>: RoadNetworkElementSet
Definition: Ordered collection of road network element.
Abstract:
Subtype of:
Stereotypes: «FeatureType»

7.14 Package "PointLocation"

7.14.1 Overall presentation

The PointLocation package shall contain a collection of data and information constructs for location referencing using a location that has a zero-dimensional character

[Figure 16](#) and [Figure 17](#) picture the classes of the package including the relationships between them.

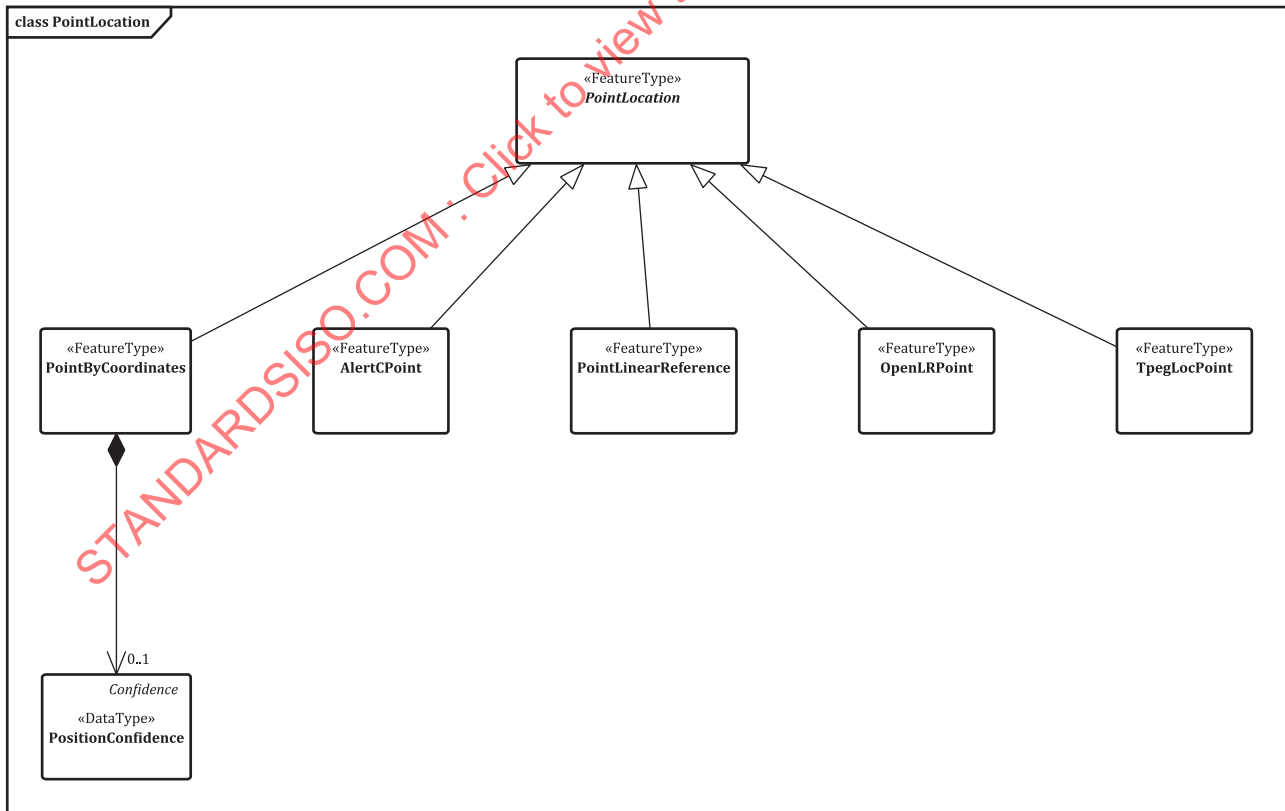


Figure 16 — The "PointLocation" class diagram

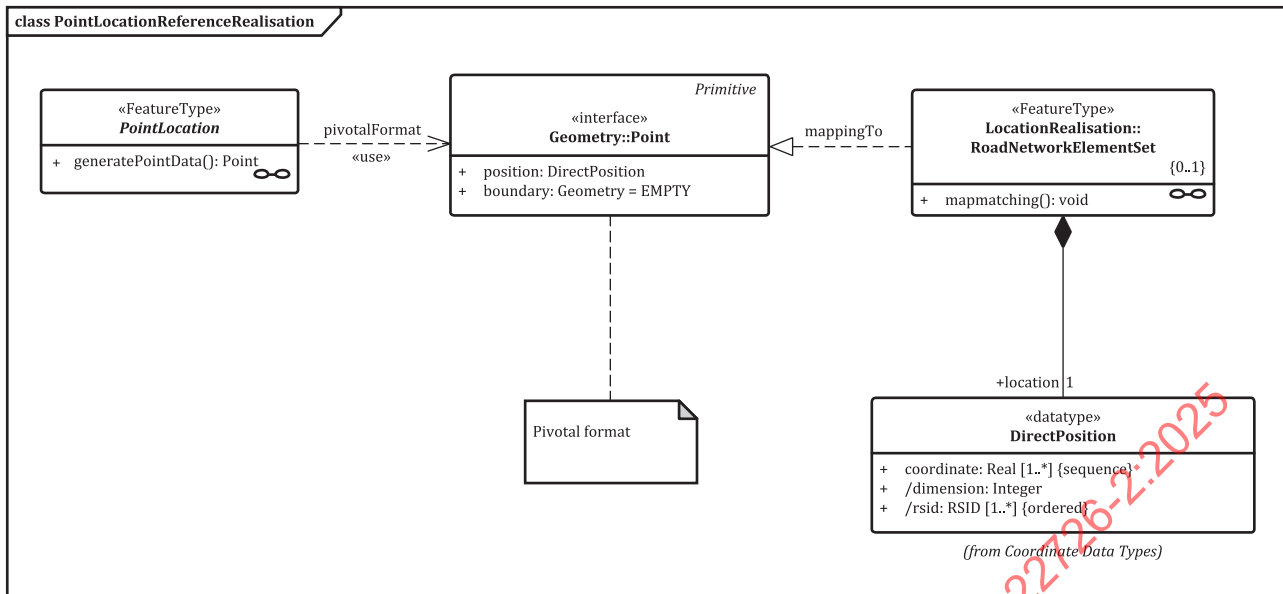


Figure 17 — The "PointLocationReferenceRealisation" class diagram

7.14.2 Class definition

The tables below define the different classes used in this package.

[Table 92](#) defines the characteristics of the AlertCPoint class.

Table 92 — AlertCPoint Class

Class <<FeatureType>>: AlertCPoint
Definition: Spatial location that has a zero-dimensional character as specified by ISO 17572-2.
Abstract:
Subtype of: PointLocation
Stereotypes: «FeatureType»

[Table 93](#) defines the characteristics of the OpenLRPoint class.

Table 93 — OpenLRPoint Class

Class <<FeatureType>>: OpenLRPoint
Definition: Spatial location that has a zero-dimensional character as specified by ISO/TS 21219-22
Abstract:
Subtype of: PointLocation
Stereotypes: «FeatureType»

[Table 94](#) defines the characteristics of the PointByCoordinates class.

Table 94 — PointByCoordinates Class

Class <<FeatureType>>: PointByCoordinates
Definition: A single point defined only by a coordinate set with an optional bearing direction (known as “point by coordinates”).
Abstract:
Subtype of: PointLocation
Stereotypes: «FeatureType»

[Table 95](#) defines the characteristics of the PointLinearReference class.

Table 95 — PointLinearReference Class

Class <<FeatureType>>: PointLinearReference
Definition: A point defined by a linear reference representing a single point on a linear element.
Abstract:
Subtype of: PointLocation
Stereotypes: «FeatureType»

[Table 96](#) defines the characteristics of the PointLocation class.

Table 96 — PointLocation Class

Class <<FeatureType>>: PointLocation
Definition: Spatial location representing a single geospatial point (0-dimensional geometric primitive).
Abstract: Abstract
Subtype of:
Stereotypes: «FeatureType»

[Table 97](#) defines the characteristics of the PositionConfidence class.

Table 97 — PositionConfidence Class

Class <<DataType>>: PositionConfidence
Definition: Horizontal and vertical position accuracy parameters defining the position confidence.
Subtype of: Confidence
Stereotypes: «DataType»

[Table 98](#) defines the characteristics of the TpegLocPoint class.

Table 98 — TpegLocPoint Class

Class <<FeatureType>>: TpegLocPoint
Definition: A single point as defined by ISO/TS 24530-2.
Abstract:
Subtype of: PointLocation
Stereotypes: «FeatureType»

7.15 "SituationDataset" package

7.15.1 Overall presentation

The SituationDataset package shall contain data and information constructs used for publishing situation information in the generic model for this document.

Figure 18 pictures the classes of the package including the relationships between them.

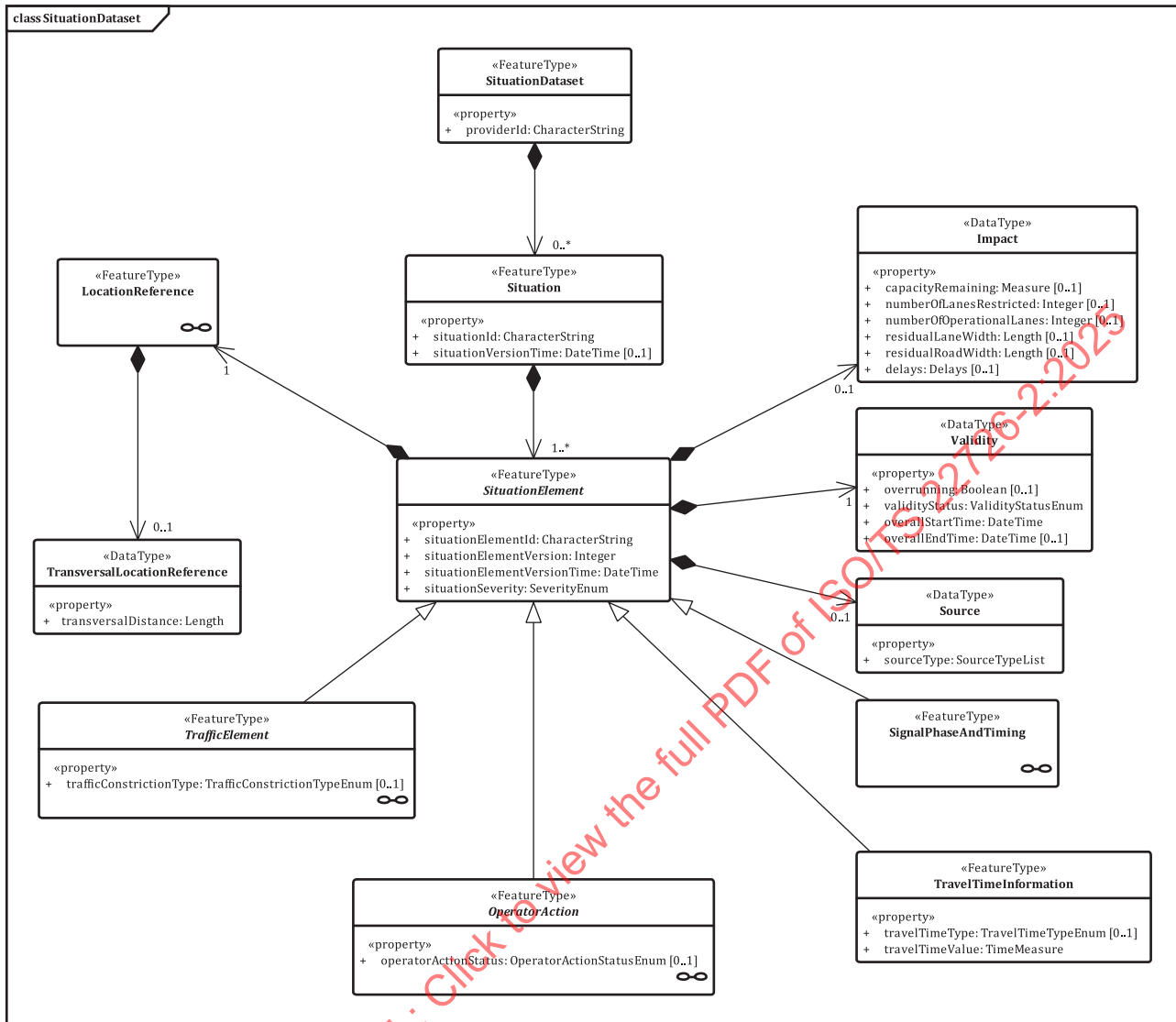


Figure 18 — The "SituationDataset" class diagram

NOTE The "SignalPhaseAndTiming" class is only present in the class model of this document as a placeholder. It will be specified in a future edition.

7.15.2 Class definition

The tables below define the different classes used in this package.

Table 99 defines the characteristics of the Situation class.

Table 99 — Situation Class

Class <<FeatureType>>: Situation
Definition: An identifiable instance of a traffic or travel situation comprising one or more traffic or travel circumstances which are linked by one or more causal relationships. Each traffic or travel circumstance is represented by a situation element.
Abstract:
Subtype of:
Stereotypes: «FeatureType»

Table 99 (continued)

Attribute: situationId		
	Definition:	An identifier for the situation as defined by the situation data provider.
	Value type:	CharacterString
	Multiplicity:	
Attribute: situationVersionTime		
	Definition:	The date/time that this current version of the situation was written into the database of the supplier which is involved in the data exchange.
	Value type:	DateTime
	Multiplicity:	[0..1]

The following [table 100](#) defines the characteristics of the SituationDataset class.

Table 100 — SituationDataset Class

Class <<FeatureType>>: SituationDataset		
Definition: A data set containing zero or more traffic and travel situations.		
Abstract:		
Subtype of:		
Stereotypes: «FeatureType»		
Attribute: providerId		
	Definition:	An identifier/name whose range is specific to the particular country.
	Value type:	CharacterString
	Multiplicity:	

[Table 101](#) defines the characteristics of the SituationElement class.

Table 101 — SituationElement Class

Class <<FeatureType>>: SituationElement		
Definition: An identifiable versioned instance of a single element within a situation.		
Abstract: Abstract		
Subtype of:		
Stereotypes: «FeatureType»		
Attribute: situationElementId		
	Definition:	An identifier for the situation element as defined by the situation data provider.
	Value type:	CharacterString
	Multiplicity:	
Attribute: situationElementVersion		
	Definition:	The version number for the current situation element as defined by the situation data provider.
	Value type:	Integer
	Multiplicity:	
Attribute: situationElementVersionTime		
	Definition:	The date/time that this current version of the situation element within the situation was written into the database of the supplier which is involved in the data exchange.
	Value type:	DateTime
	Multiplicity:	

Table 101 (continued)

Attribute: situationSeverity		
	Definition:	Provisional attribute for qualifying the severity (or the urgency) of the situation element. The assessment of the impact (in terms of severity) that this element of the situation is having, or will have, on the traffic flow as perceived by the supplier.
	Value type:	SeverityEnum
	Multiplicity:	

[Table 102](#) defines the characteristics of the TravelTimeInformation class.

Table 102 — TravelTimeInformation Class

Class <<FeatureType>>: TravelTimeInformation		
Definition: Measured or computed travel time information relating to a linear section of the road network.		
Abstract:		
Subtype of: SituationElement		
Stereotypes: «FeatureType»		
Attribute: travelTimeType		
	Definition:	Indication of the way in which the travel time is derived
	Value type:	TravelTimeTypeEnum
	Multiplicity:	[0..1]
Attribute: travelTimeValue		
	Definition:	Derived/computed travel time information relating to a specific group of locations.
	Value type:	TimeMeasure
	Multiplicity:	

7.16 "OperatorAction" package

7.16.1 Overall presentation

The OperatorAction package shall contain a collection of data providing information on an occurrence of traffic action on the network that is decided by a road or traffic operator.

[Figure 19](#) pictures the classes of the package including the relationships between them.

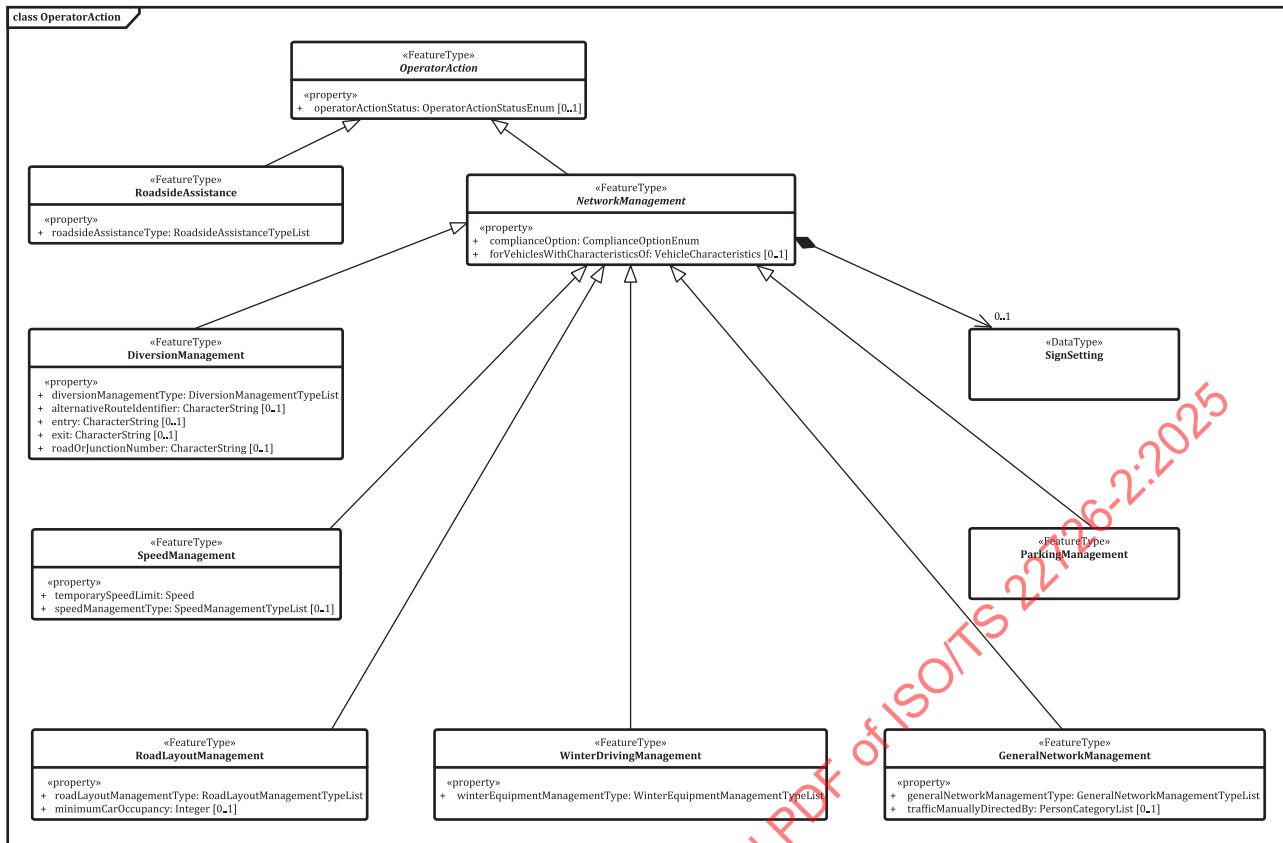


Figure 19 — The "OperatorAction" class diagram

NOTE The "SignSetting" and "ParkingManagement" classes are only present in the class model of this document as placeholders. They will be specified in a future edition.

7.16.2 Class definition

The tables below define the different classes used in this package.

[Table 103](#) defines the characteristics of the DiversionManagement class.

Table 103 — DiversionManagement Class

Class <<FeatureType>>: DiversionManagement		
Definition: Diversion or rerouting management action that is issued by the road network operator.		
Abstract:		
Subtype of: NetworkManagement		
Stereotypes: «FeatureType»		
Attribute: diversionManagementType		
	Definition:	Type of diversion or rerouting management action instigated by the road operator.
	Value type:	DiversionManagementTypeList
	Multiplicity:	
Attribute: alternativeRouteIdentifier		
	Definition:	Identity used on signs to identify the alternative route, typically a very short sequence of letters and/or digits.
	Value type:	CharacterString
	Multiplicity:	[0..1]

Table 103 (continued)

Attribute: entry		
	Definition:	The specified entry on to another road at which the alternative route commences.
	Value type:	CharacterString
	Multiplicity:	[0..1]
Attribute: exit		
	Definition:	The specified exit from the normal route/road at which the alternative route commences.
	Value type:	CharacterString
	Multiplicity:	[0..1]
Attribute: roadOrJunctionNumber		
	Definition:	The intersecting road or the junction at which the alternative route commences.
	Value type:	CharacterString
	Multiplicity:	[0..1]

[Table 104](#) defines the characteristics of the GeneralNetworkManagement class.

Table 104 — GeneralNetworkManagement Class

Class <<FeatureType>>: GeneralNetworkManagement		
Definition: Network management action that is instigated either manually or automatically by the road network operator. Compliance with any resulting control can be advisory or mandatory.		
Abstract:		
Subtype of: NetworkManagement		
Stereotypes: «FeatureType»		
Attribute: generalNetworkManagementType		
	Definition:	The type of traffic management action instigated by the network/road operator.
	Value type:	GeneralNetworkManagementTypeList
	Multiplicity:	
Attribute: trafficManuallyDirectedBy		
	Definition:	Type of person that is manually directing traffic (applicable if generalManagementType is set to "trafficBeingManuallyDirected").
	Value type:	PersonCategoryList
	Multiplicity:	[0..1]

[Table 105](#) defines the characteristics of the NetworkManagement class.

Table 105 — NetworkManagement Class

Class <<FeatureType>>: NetworkManagement		
Definition: Network management action which is applicable to the road network and its users.		
Abstract: Abstract		
Subtype of: OperatorAction		
Stereotypes: «FeatureType»		
Attribute: complianceOption		
	Definition:	Defines whether the network management instruction or the control resulting from a network management action is advisory or mandatory.
	Value type:	ComplianceOptionEnum

Table 105 (continued)

	Multiplicity:	
Attribute: forVehiclesWithCharacteristicsOf		
	Definition:	The characteristics of those vehicles for which the network management is applicable.
	Value type:	VehicleCharacteristics
	Multiplicity:	[0..1]

[Table 106](#) defines the characteristics of the OperatorAction class.

Table 106 — OperatorAction Class

Class <<FeatureType>>: OperatorAction		
Definition: Actions that a traffic operator can decide to implement to prevent or help correct dangerous or poor driving conditions, including maintenance of the road infrastructure.		
Abstract: Abstract		
Subtype of: SituationElement		
Stereotypes: «FeatureType»		
Attribute: operatorActionStatus		
	Definition:	The status of the defined operator action.
	Value type:	OperatorActionStatusEnum
	Multiplicity:	[0..1]

[Table 107](#) defines the characteristics of the ParkingManagement class.

Table 107 — ParkingManagement Class

Class <<FeatureType>>: ParkingManagement		
Definition: Management action dealing with car parks or parking that is instigated by the road network operator or the parking operator.		
Abstract:		
Subtype of: NetworkManagement		
Stereotypes: «FeatureType»		

[Table 108](#) defines the characteristics of the RoadLayoutManagement class.

Table 108 — RoadLayoutManagement Class

Class <<FeatureType>>: RoadLayoutManagement		
Definition: Road, carriageway or lane management action that is instigated by the road network operator.		
Abstract:		
Subtype of: NetworkManagement		
Stereotypes: «FeatureType»		
Attribute: roadLayoutManagementType		
	Definition:	Type of road, carriageway or lane management action instigated by the road/traffic operator.
	Value type:	RoadLayoutManagementTypeList
	Multiplicity:	
Attribute: minimumCarOccupancy		

Table 108 (continued)

	Definition:	The minimum number of persons required in a vehicle in order for it to be allowed to transit the specified road section.
	Value type:	Integer
	Multiplicity:	[0..1]

[Table 109](#) defines the characteristics of the RoadsideAssistance class.

Table 109 — RoadsideAssistance Class

Class <<FeatureType>>: RoadsideAssistance		
Definition: Details of roadside assistance required or being given.		
Abstract:		
Subtype of: OperatorAction		
Stereotypes: «FeatureType»		
Attribute: roadsideAssistanceType		
	Definition:	Indicates the nature of the roadside assistance that will be, is, or has been provided.
	Value type:	RoadsideAssistanceTypeList
	Multiplicity:	

[Table 110](#) defines the characteristics of the SignSetting class.

Table 110 — SignSetting Class

Class <<DataType>>: SignSetting		
Definition: Provides information on message signs and the information currently displayed. It is based on ISO 14823 "Graphic Data Dictionary".		
Subtype of:		
Stereotypes: «DataType»		

[Table 111](#) defines the characteristics of the SpeedManagement class.

Table 111 — SpeedManagement Class

Class <<FeatureType>>: SpeedManagement		
Definition: Speed management action that is instigated by the road network operator.		
Abstract:		
Subtype of: NetworkManagement		
Stereotypes: «FeatureType»		
Attribute: temporarySpeedLimit		
	Definition:	Temporary limit defining the maximum advisory or mandatory speed of vehicles.
	Value type:	Speed
	Multiplicity:	
Attribute: speedManagementType		
	Definition:	Type of speed management action instigated by the road/traffic operator.
	Value type:	SpeedManagementTypeList
	Multiplicity:	[0..1]

[Table 112](#) defines the characteristics of the WinterDrivingManagement class.

Table 112 — WinterDrivingManagement Class

Class <<FeatureType>>: WinterDrivingManagement		
Definition: Winter driving management action that is instigated by the road network operator.		
Abstract:		
Subtype of: NetworkManagement		
Stereotypes: «FeatureType»		
Attribute: winterEquipmentManagementType		
	Definition:	Type of winter equipment management action instigated by the road/traffic operator.
	Value type:	WinterEquipmentManagementTypeList
	Multiplicity:	

7.17 "Parking" package

7.17.1 Overall presentation

The Parking package shall contain a collection of data providing information on car parking and related facilities

[Figure 20](#) pictures the classes of the package including the relationships between them.

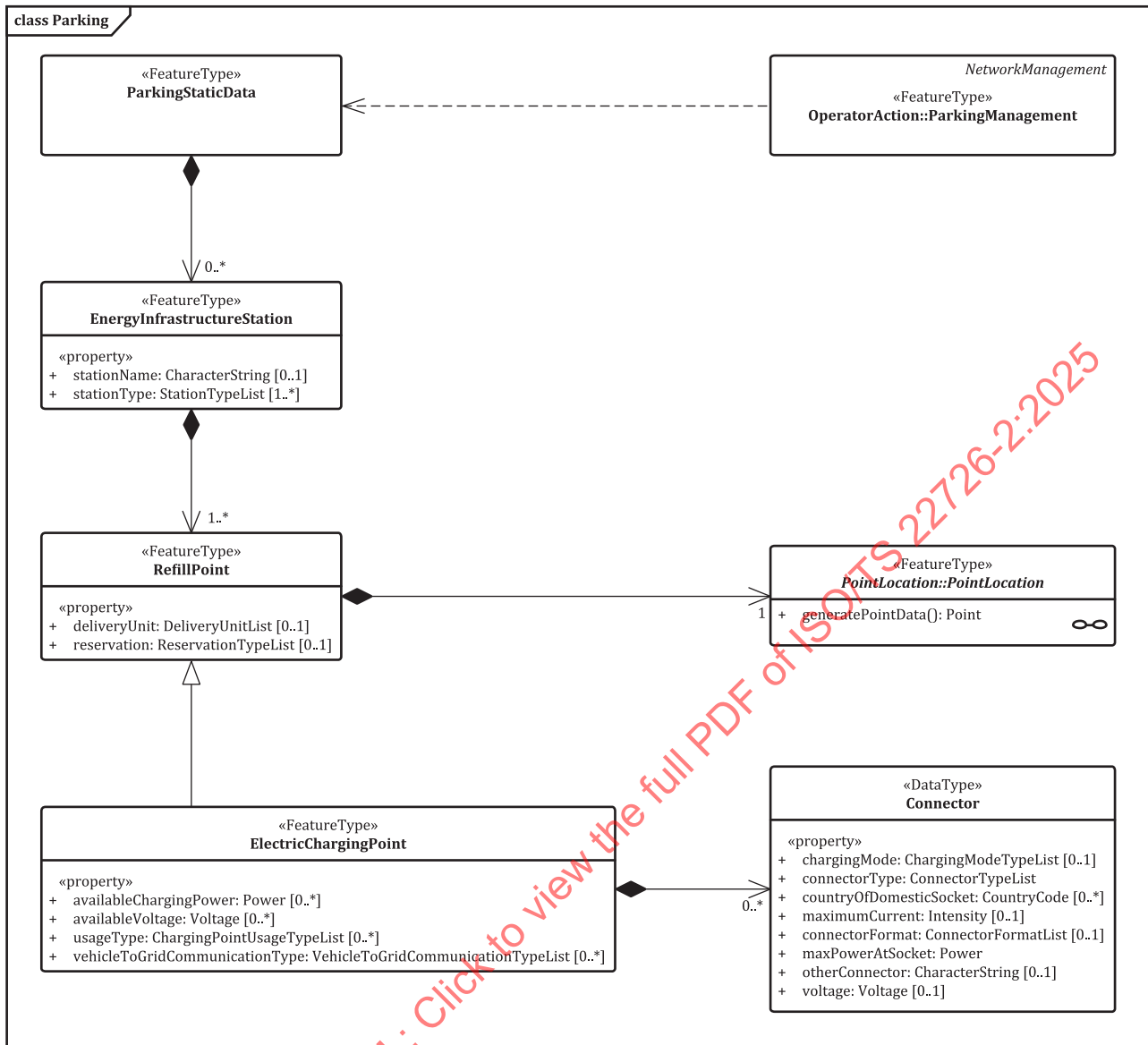


Figure 20 — The "Parking" class diagram

NOTE The "ParkingManagement" class is only present in the class model of this document as a placeholder. It will be specified in a future edition.

7.17.2 Class definition

The tables below define the different classes used in this package.

The following [table 113](#) defines the characteristics of the Connector class.

Table 113 — Connector Class

Class <<DataType>>: Connector
Definition: Technical infrastructure delivering electricity from the charging facility to the vehicle through a standardized or proprietary plug.
Subtype of:
Stereotypes: «DataType»
Attribute: chargingMode

Table 113 (continued)

	Definition:	EV charging modes as defined by IEC 61851-1.
	Value type:	ChargingModeTypeList
	Multiplicity:	[0..1]
Attribute: connectorType		
	Definition:	Type of the piece that is used to connect a charging point to a vehicle or vice versa. It requires a matching socket.
	Value type:	ConnectorTypeList
	Multiplicity:	
Attribute: countryOfDomesticSocket		
	Definition:	Information indicating domestic sockets in order to be able to determine the type of socket.
	Value type:	CountryCode
	Multiplicity:	[0..*]
Attribute: maximumCurrent		
	Definition:	Maximum current in amperes.
	Value type:	Intensity
	Multiplicity:	[0..1]
Attribute: connectorFormat		
	Definition:	Form of the piece that is used to connect a charging point to a vehicle or vice versa. It requires a matching socket.
	Value type:	ConnectorFormatList
	Multiplicity:	[0..1]
Attribute: maxPowerAtSocket		
	Definition:	The maximum deliverable electric power through the given connector.
	Value type:	Power
	Multiplicity:	
Attribute: otherConnector		
	Definition:	Available connectors at the charging station for different type of EVs.
	Value type:	CharacterString
	Multiplicity:	[0..1]
Attribute: voltage		
	Definition:	Possible degrees of voltage.
	Value type:	Voltage
	Multiplicity:	[0..1]

Table 114 defines the characteristics of the ElectricChargingPoint class.

Table 114 — ElectricChargingPoint Class

Class <<FeatureType>>: ElectricChargingPoint		
Definition: Technical infrastructure at a specific location that facilitates the electric charging process for one vehicle at a time.		
Abstract:		
Subtype of: RefillPoint		
Stereotypes: «FeatureType»		
Attribute: availableChargingPower		
	Definition:	The charging power capacity of the given charging infrastructure available during its operation.

Table 114 (continued)

	Value type:	Power
	Multiplicity:	[0..*]
Attribute: availableVoltage		
	Definition:	The voltage value(s) on which the given charging infrastructure is operating.
	Value type:	Voltage
	Multiplicity:	[0..*]
Attribute: usageType		
	Definition:	Usage type of the electric charging point.
	Value type:	ChargingPointUsageTypeList
	Multiplicity:	[0..*]
Attribute: vehicleToGridCommunicationType		
	Definition:	Type of communication used between the electric infrastructure and the vehicle as specified by ISO 15118-20.
	Value type:	VehicleToGridCommunicationTypeList
	Multiplicity:	[0..*]

[Table 115](#) defines the characteristics of the EnergyInfrastructureStation class.

Table 115 — EnergyInfrastructureStation Class

Class <<FeatureType>>: EnergyInfrastructureStation		
Definition: A collection of associated refill (fuelling or charging) points which can be of different types. An example would be a fuel dispenser that serves different types of fuel. The vehicle space of the station is often shared between the different refill points.		
Abstract:		
Subtype of:		
Stereotypes: «FeatureType»		
Attribute: stationName		
	Definition:	Name of the energy infrastructure station.
	Value type:	CharacterString
	Multiplicity:	[0..1]
Attribute: stationType		
	Definition:	Information on which service level is expected for this station.
	Value type:	StationTypeList
	Multiplicity:	[1..*]

[Table 116](#) defines the characteristics of the ParkingStaticData class.

Table 116 — ParkingStaticData Class

Class <<FeatureType>>: ParkingStaticData		
Definition: Static data dealing with car parks or parking that is instigated by the road network operator or the parking operator.		
Abstract:		
Subtype of:		
Stereotypes: «FeatureType»		

[Table 117](#) defines the characteristics of the RefillPoint class.

Table 117 — RefillPoint Class

Class <<FeatureType>>: RefillPoint		
Definition: Technical infrastructure at a specific location that facilitates an energy refilling process for max.one vehicle at a time.		
Abstract:		
Subtype of:		
Stereotypes: «FeatureType»		
Attribute: deliveryUnit		
	Definition:	Measurement unit used for delivering and accounting the energy provided at this refill point.
	Value type:	DeliveryUnitList
	Multiplicity:	[0..1]
Attribute: reservation		
	Definition:	Information about options for reserving a time slot.
	Value type:	ReservationTypeList
	Multiplicity:	[0..1]

7.18 "SPaT" package

7.18.1 Overall presentation

The SPaT package shall contain the different structures (classes and associations) needed for the SPaT data set.

[Figure 21](#) pictures the classes of the package including the relationships between them.

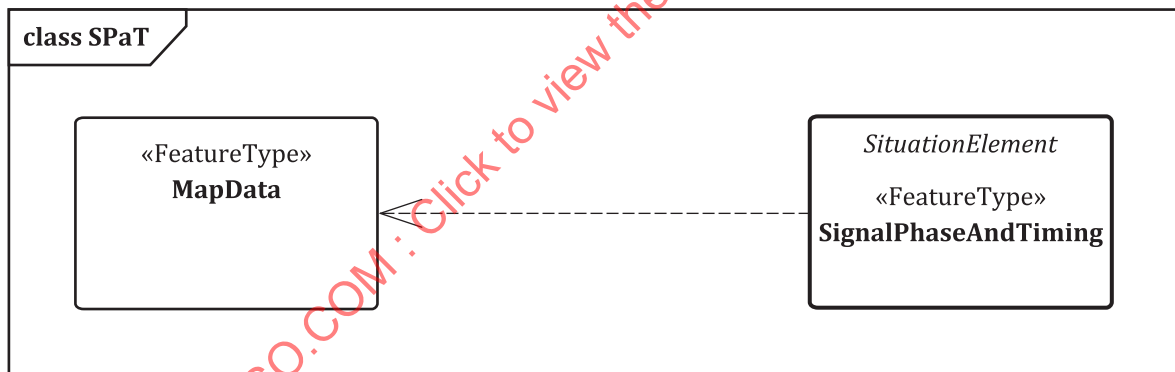


Figure 21 — The "SPaT" class diagram

NOTE The "SignalPhaseAndTiming" class is only present in the class model of this document as a placeholder. It will be specified in a future edition.

7.18.2 Class definition

The tables below define the different classes used in this package.

[Table 118](#) defines the characteristics of the MapData class.

Table 118 — MapData Class

Class <<FeatureType>>: MapData
Definition: Data set to convey one or more intersection lane geometry maps within a single message. [SOURCE: Adapted from SAE J2735].
Abstract:
Subtype of:
Stereotypes: «FeatureType»

Table 119 defines the characteristics of the SignalPhaseAndTiming class.

Table 119 — SignalPhaseAndTiming Class

Class <<FeatureType>>: SignalPhaseAndTiming
Definition: A version identifiable record conveying the current status of one or more signalised intersection.
Abstract:
Subtype of: SituationElement
Stereotypes: «FeatureType»

7.19 "TrafficElement" package

7.19.1 Overall presentation

The TrafficElement package shall contain a collection of data providing information on an occurrence of event on the network which is not decided by a road or traffic operator.

Figure 22 pictures the classes of the package including the relationships between them.

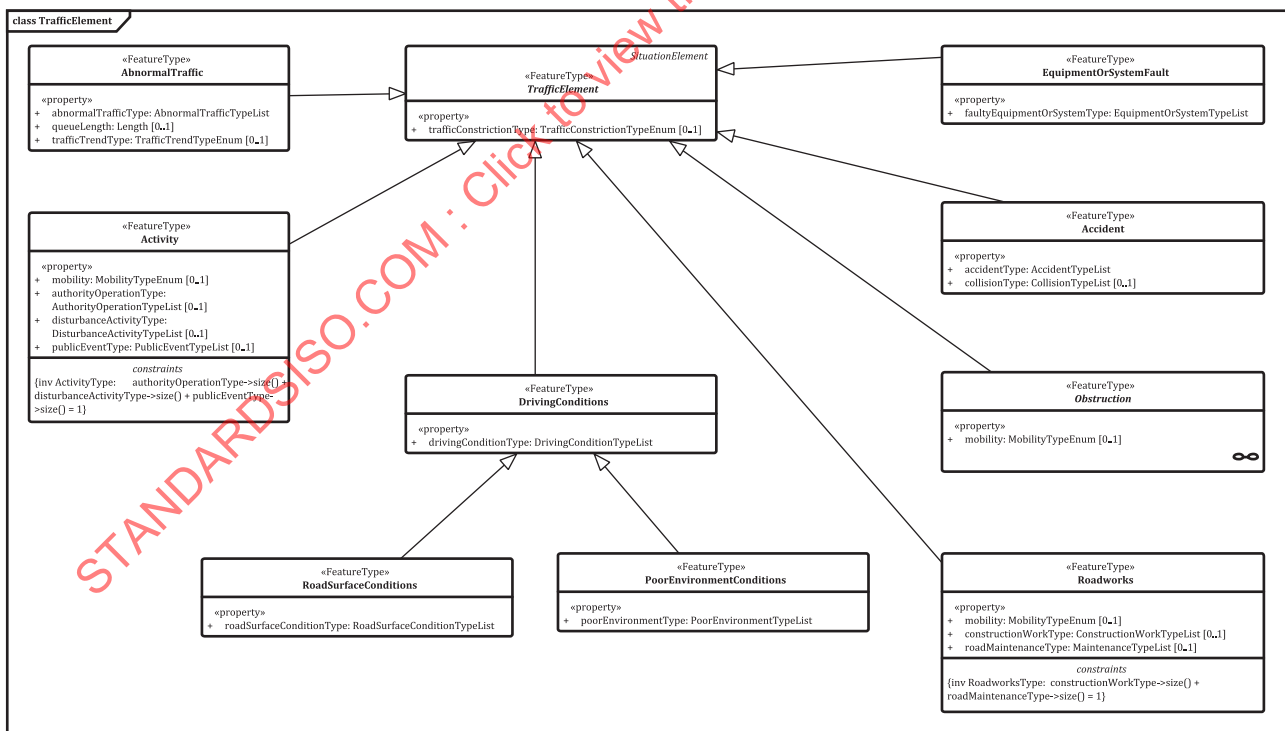


Figure 22 — The "TrafficElement" class diagram

7.19.2 Class definition

The tables below define the different classes used in this package.

[Table 120](#) defines the characteristics of the AbnormalTraffic class.

Table 120 — AbnormalTraffic Class

Class <<FeatureType>>: AbnormalTraffic		
Definition: A traffic condition which is not normal.		
Abstract:		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: abnormalTrafficType		
	Definition:	A characterization of the nature of abnormal traffic flow, i.e. specifically relating to the nature of the traffic movement, implying a level of service.
	Value type:	AbnormalTrafficTypeList
	Multiplicity:	
Attribute: queueLength		
	Definition:	The length of a queue or the average length of queues in separate lanes due to a situation.
	Value type:	Length
	Multiplicity:	[0..1]
Attribute: trafficTrendType		
	Definition:	A characterization of the trend in the traffic conditions at the specified location and direction.
	Value type:	TrafficTrendTypeEnum
	Multiplicity:	[0..1]

[Table 121](#) defines the characteristics of the Accident class.

Table 121 — Accident Class

Class <<FeatureType>>: Accident		
Definition: Accidents are events where one or more vehicles are involved in collisions or in leaving the roadway. These include collisions between vehicles or with other road users or obstacles.		
Abstract:		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: accidentType		
	Definition:	A characterization of the nature of the accident.
	Value type:	AccidentTypeList
	Multiplicity:	
Attribute: collisionType		
	Definition:	Identifies a type of collision.
	Value type:	CollisionTypeList
	Multiplicity:	[0..1]

[Table 122](#) defines the characteristics of the Activity class.

Table 122 — Activity Class

Class <<FeatureType>>: Activity		
Definition: Deliberate human action external to the traffic stream or roadway which could disrupt traffic.		
Abstract:		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: mobility		
	Definition:	Mobility of the activity.
	Value type:	MobilityTypeEnum
	Multiplicity:	[0..1]
Attribute: authorityOperationType		
	Definition:	Authority-initiated operation or activity that could disrupt traffic.
	Value type:	AuthorityOperationTypeList
	Multiplicity:	[0..1]
Attribute: disturbanceActivityType		
	Definition:	Includes all situations of a public disorder type or of an alert type, with potential to disrupt traffic.
	Value type:	DisturbanceActivityTypeList
	Multiplicity:	[0..1]
Attribute: publicEventType		
	Definition:	Type of public event which could disrupt traffic.
	Value type:	PublicEventTypeList
	Multiplicity:	[0..1]
Constraint on class: <<Invariant>>		
Natural language: An "Activity" instance shall only have one of the following three types: "authorityOperationType", "disturbanceActivityType" or "publicEventType".		
OCL: inv ActivityType: authorityOperationType->size() + disturbanceActivityType->size() + publicEvent- Type->size() = 1		

[Table 123](#) defines the characteristics of the DrivingConditions class.

Table 123 — DrivingConditions Class

Class <<FeatureType>>: DrivingConditions		
Definition: Any conditions which have the potential to degrade normal driving conditions.		
Abstract:		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: drivingConditionType		
	Definition:	Description of the driving conditions at the specified location.
	Value type:	DrivingConditionTypeList
	Multiplicity:	

[Table 124](#) defines the characteristics of the EquipmentOrSystemFault class.

Table 124 — EquipmentOrSystemFault Class

Class <<FeatureType>>: EquipmentOrSystemFault		
Definition: Equipment or system which is faulty, malfunctioning or not in a fully operational state that can be of interest or concern to road operators and road users.		
Abstract:		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: faultyEquipmentOrSystemType		
	Definition:	The type of equipment or system which is faulty, malfunctioning or not in a fully operational state.
	Value type:	EquipmentOrSystemTypeList
	Multiplicity:	

[Table 125](#) defines the characteristics of the Obstruction class.

Table 125 — Obstruction Class

Class <<FeatureType>>: Obstruction		
Definition: Any stationary or moving obstacle of a physical nature (e.g. obstacles or vehicles from an earlier accident, shed loads on carriageway, rock fall, abnormal or dangerous loads, or animals, etc.) which could disrupt or endanger traffic.		
Abstract: Abstract		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: mobility		
	Definition:	The mobility of the obstruction.
	Value type:	MobilityTypeEnum
	Multiplicity:	[0..1]

[Table 126](#) defines the characteristics of the PoorEnvironmentConditions class.

Table 126 — PoorEnvironmentConditions Class

Class <<FeatureType>>: PoorEnvironmentConditions		
Definition: Any environmental conditions which can be affecting the driving conditions on the road.		
Abstract:		
Subtype of: DrivingConditions		
Stereotypes: «FeatureType»		
Attribute: poorEnvironmentType		
	Definition:	The type of environment condition which is affecting driving conditions.
	Value type:	PoorEnvironmentTypeList
	Multiplicity:	

[Table 127](#) defines the characteristics of the RoadSurfaceConditions class.

Table 127 — RoadSurfaceConditions Class

Class <<FeatureType>>: RoadSurfaceConditions		
Definition: Conditions of the road surface which can affect driving conditions. These can be related to the weather (e.g. ice, snow, etc.) or to other conditions (e.g. oil, mud, leaves, etc. on the road).		
Abstract:		
Subtype of: DrivingConditions		
Stereotypes: «FeatureType»		
Attribute: roadSurfaceConditionType		
	Definition:	The type of road surface condition that is related to the driving conditions or the weather which is affecting the driving conditions.
	Value type:	RoadSurfaceConditionTypeList
	Multiplicity:	

[Table 128](#) defines the characteristics of the Roadworks class.

Table 128 — Roadworks Class

Class <<FeatureType>>: Roadworks		
Definition: Highway or street maintenance, installation and construction activities that can potentially affect traffic operations.		
Abstract:		
Subtype of: TrafficElement		
Stereotypes: «FeatureType»		
Attribute: mobility		
	Definition:	The mobility of the road works.
	Value type:	MobilityTypeEnum
	Multiplicity:	[0..1]
Attribute: constructionWorkType		
	Definition:	The type of construction work being performed.
	Value type:	ConstructionWorkTypeList
	Multiplicity:	[0..1]
Attribute: roadMaintenanceType		
	Definition:	The type of road maintenance or installation work at the specified location.
	Value type:	MaintenanceTypeList
	Multiplicity:	[0..1]
Constraint on class: <<Invariant>> Natural language: A "Roadworks" instance shall have either a construction work type or a road maintenance type. OCL: inv RoadworksType: constructionWorkType->size() + roadMaintenanceType->size() = 1		

[Table 129](#) defines the characteristics of the TrafficElement class.

Table 129 — "TrafficElement" Class

Class <<FeatureType>>: TrafficElement		
Definition: An event which is not planned by the traffic operator, which is affecting, or has the potential to affect traffic flow.		
Abstract: Abstract		
Subtype of: SituationElement		
Stereotypes: «FeatureType»		
Attribute: trafficConstrictionType		

Table 129 (continued)

	Definition:	The type of constriction to which traffic is subjected as a result of an unplanned event.
	Value type:	TrafficConstrictionTypeEnum
	Multiplicity:	[0..1]

7.20 "Obstruction" package

7.20.1 Overall presentation

The Obstruction package shall contain a collection of data providing information on any stationary or moving obstacle of a physical nature (e.g. obstacles or vehicles from an earlier accident, shed loads on carriageway, rock fall, abnormal or dangerous loads, animals, etc.) which could disrupt or endanger traffic.

Figure 23 pictures the classes of the package including the relationships between them.

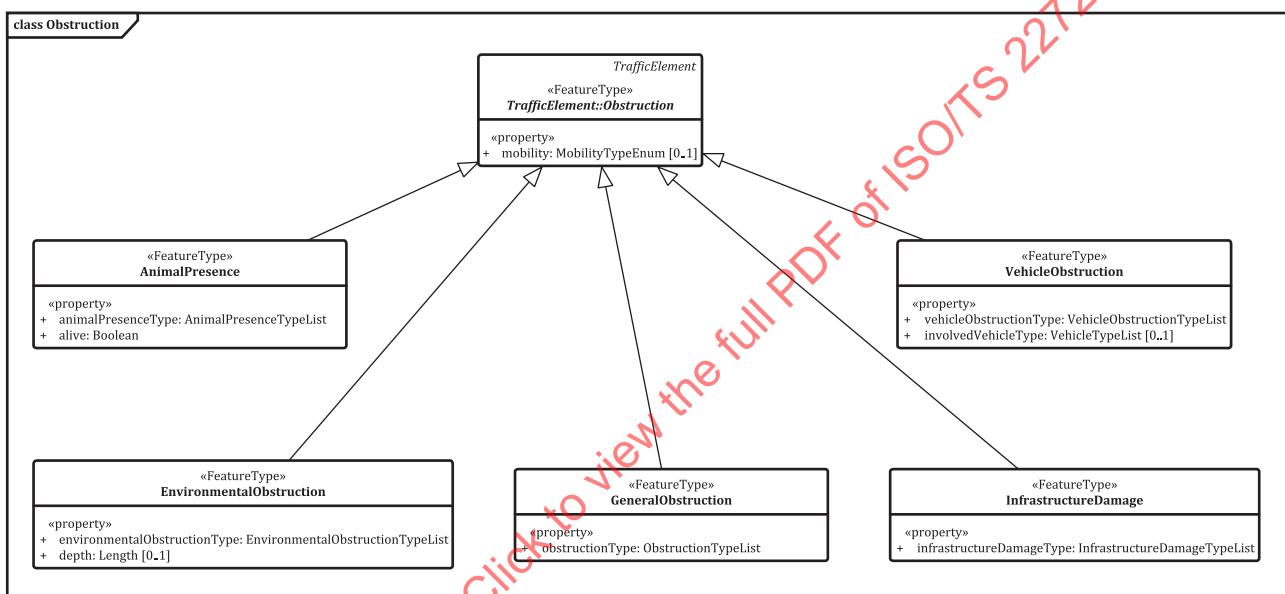


Figure 23 — The "Obstruction" class diagram

7.20.2 Class definition

The tables below define the different classes used in this package.

Table 130 defines the characteristics of the AnimalPresence class.

Table 130 — AnimalPresence Class

Class <<FeatureType>>: AnimalPresence		
Definition: An obstruction on the road resulting from the presence of animals.		
Abstract:		
Subtype of: Obstruction		
Stereotypes: «FeatureType»		
Attribute: animalPresenceType		
	Definition:	Indicates the nature of animals present on or near the roadway.
	Value type:	AnimalPresenceTypeList
	Multiplicity:	

Table 130 (continued)

Attribute: alive		
	Definition:	Indicates whether the identified animals are dead (immobile) or alive (potentially mobile). ("true" = "alive").
	Value type:	Boolean
	Multiplicity:	

[Table 131](#) defines the characteristics of the EnvironmentalObstruction class.

Table 131 — EnvironmentalObstruction Class

Class <<FeatureType>>: EnvironmentalObstruction		
Definition: An obstruction on the road resulting from an environmental cause.		
Abstract:		
Subtype of: Obstruction		
Stereotypes: «FeatureType»		
Attribute: environmentalObstructionType		
	Definition:	Characterization of an obstruction on the road resulting from an environmental cause.
	Value type:	EnvironmentalObstructionTypeList
	Multiplicity:	
Attribute: depth		
	Definition:	The depth of flooding or of snow on the road.
	Value type:	Length
	Multiplicity:	[0..1]

[Table 132](#) defines the characteristics of the GeneralObstruction class.

Table 132 — GeneralObstruction Class

Class <<FeatureType>>: GeneralObstruction		
Definition: Any stationary or moving obstacle of a physical nature, other than of an animal, vehicle, environmental, or damaged equipment nature.		
Abstract:		
Subtype of: Obstruction		
Stereotypes: «FeatureType»		
Attribute: obstructionType		
	Definition:	Characterization of the type of general obstruction.
	Value type:	ObstructionTypeList
	Multiplicity:	

[Table 133](#) defines the characteristics of the InfrastructureDamage class.

Table 133 — InfrastructureDamage Class

Class <<FeatureType>>: InfrastructureDamage		
Definition: An obstruction on the road resulting from the failure or damage of infrastructure on, under, above or close to the road.		
Abstract:		
Subtype of: Obstruction		
Stereotypes: «FeatureType»		

Table 133 (continued)

Attribute: infrastructureDamageType		
	Definition:	Characterization of an obstruction on the road resulting from the failure or damage of infrastructure on, under, above or close to the road.
	Value type:	InfrastructureDamageTypeList
	Multiplicity:	

[Table 134](#) defines the characteristics of the VehicleObstruction class.

Table 134 — VehicleObstruction Class

Class <<FeatureType>>: VehicleObstruction		
Definition: An obstruction on the road caused by one or more vehicles.		
Abstract:		
Subtype of: Obstruction		
Stereotypes: «FeatureType»		
Attribute: vehicleObstructionType		
	Definition:	Characterization of an obstruction on the road caused by one or more vehicles.
	Value type:	VehicleObstructionTypeList
	Multiplicity:	
Attribute: involvedVehicleType		
	Definition:	Type of vehicle involved.
	Value type:	VehicleTypeList
	Multiplicity:	[0..1]

Annex A (informative)

Traceability matrices

A.1 Introduction

The tables in this annex provide traceability information between a class of a given package in the generic data model and the corresponding classes of the data model for each traffic information service.

The matrix helps to find corresponding classes in the data models and provides information about the capability of the generic data model.

A.2 "DataSet" package

There is no traceability matrix for this package.

A.3 "Common" package

There is no traceability matrix for this package.

A.4 "CodeLists" package

There is no traceability matrix for this package.

A.5 "DataManagement" package

[Table A.1](#) shows the traceability matrix for the DataManagement package.

Table A.1 — LifeCycleManagement Class table

Connector		
Type	From	To
Dependency	«DataType»DataSet::Common::DataManagement::LifeCycleManagement	«FeatureType»SituationElement

A.6 "DataQuality" package

[Table A.2](#) shows the traceability matrix for the DataQuality package.

Table A.2 — Confidence Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::Common::Classes::Fault::Fault	«DataType» Confidence
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::AltitudeConfidence	«DataType» Confidence
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::PosConfidenceEllipse	«DataType» Confidence
Trace	TPEG model::TPEGDataTypes::Datatypes::Probability	«DataType» Confidence
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::Fault::VmsFault	«DataType» Confidence

A.7 "DataTypes" package

[Tables A.3](#), [A.4](#), [A.5](#), [A.6](#), [A.7](#), [A.8](#) show the traceability matrices for the “DataTypes” package.

Table A.3 — Details Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::Impact::Delays	«DataType» Details
Trace	TPEG model::TrafficEventCompact::Cause	«DataType» Details
Trace	TPEG model::TrafficEventCompact::DirectCause	«DataType» Details
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec002:CauseCode	«DataType» Details

Table A.4 — Impact Class table

Connector		
Type	From	To
Trace	TPEG model::TPEGDataTypes::Datatypes::Duration	«DataType» Impact
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::Impact::Impact	«DataType» Impact

Table A.5 — Mobility Class table

Connector		
Type	From	To
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::Speed	«DataType» Mobility
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::Mobility	«DataType» Mobility
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec116:RegulatoryMeasure	«DataType» Mobility

Table A.6 — Source Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::Common::Classes::Source	«DataType» Source

Table A.7 — Validity Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::Common::Classes::Validity::Validity	«DataType» Validity
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::ValidityPeriods	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::TimePeriodOfDay	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::DayWeekMonth	«DataType» Validity
Trace	«D2Class»D2Payload::PayloadPublication::RoadTrafficData::Classes::DataValue::DateTimeValue	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::OverallPeriod	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::PublicHoliday	«DataType» Validity
Trace	«D2Class»D2Payload::Extension::TrafficSignals::SignalPhaseAndTimingPublication::TimeChangeDetails	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::InstanceOfDayWithinMonth	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::SpecialDay	«DataType» Validity
Trace	«D2Class»D2Payload::Common::Classes::Validity::CalendarWeekWithinMonth	«DataType» Validity
Trace	«D2Class»D2Payload::PayloadPublication::RoadTrafficData::Classes::PhysicalQuantity::TimeProfiledPhysicalQuantity	«DataType» Validity

Table A.8 — VehicleCharacteristics Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::RoadTrafficData::Classes::AxleCharacteristics	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::VehicleCharacteristicsFixValues	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::AxleWightLimits	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::VehicleCharacteristics	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::GrossWeightCharacteristic	«DataType» VehicleCharacteristics

Table A.8 (continued)

Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::PassengerCapacity	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::Emissions	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::VehicleCharacteristicsRangesList	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::EnvironmentalCharacteristics	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::TrailerCharacteristicsList	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::CompleteVehicleCharacteristics	«DataType» VehicleCharacteristics
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec009:VehicleType	«DataType» VehicleCharacteristics
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::HeightCharacteristic	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::Vehicle::AxleWeight	«DataType» VehicleCharacteristics
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::DangerousGoodsExtended	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::ExhaustEmissionValues	«DataType» VehicleCharacteristics
Trace	TPEG model::TPEGDataTypes::Datatypes::Velocity	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::VehicleDimensions	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::LoadType	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::TrailerCharacteristicsFixValuesList	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::Vehicle::Vehicle	«DataType» VehicleCharacteristics
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec007:RestrictionType	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::VehicleCharacteristicsFixValuesList	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::Vehicle::AxleSpacing	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::TrailerCharacteristics	«DataType» VehicleCharacteristics
Trace	TPEG model::TrafficEventCompact::Advice	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::SoundLevel	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::HazardousMaterials	«DataType» VehicleCharacteristics

Table A.8 (continued)

Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::LengthCharacteristic	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::PayloadPublication::RoadTrafficData::Classes::DataValue::AxleFlowValue	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::TractorCharacteristics	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::VehicleCharacteristicsRanges	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::Speed	«DataType» VehicleCharacteristics
Trace	TPEG model::TPEGDataTypes::Datatypes::Weight	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::NumberOfAxlesCharacteristic	«DataType» VehicleCharacteristics
Trace	«D2Class»D2Payload::Common::Classes::VehicleCharacteristics::WidthCharacteristic	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::TrainCharacteristics	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::VehicleWeightLimits	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::VehicleCharacteristicsList	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::TrailerCharacteristicsRangesList	«DataType» VehicleCharacteristics
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::EuVehicleCategoryCode	«DataType» VehicleCharacteristics
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«DataType» VehicleCharacteristics

A.8 "Enumerations" package

There is no traceability matrix for this package

A.9 "LocationReference" package

[Tables A.9](#), [A.10](#), [A.11](#), [A.12](#), [A.13](#), [A.14](#), [A.15](#), [A.16](#), [A.17](#) show the traceability matrices for the "LocationReference" package.

Table A.9 — AreaLocation Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrGridLocationReference	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrAreaLocationReference	«DataType» AreaLocation
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» AreaLocation

Table A.9 (continued)

Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AreaDestination	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrClosedLineLocationReference	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegAreaLocation::TpegGeometricArea	«DataType» AreaLocation
Trace	«External»TPEG model::LRC::GLRLocationReferenceLink	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::NamedArea::NamedArea	«DataType» AreaLocation
Trace	«D2Class»D2Payload::Common::Classes::Validity::NamedArea	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegAreaLocation::TpegNamedOnlyArea	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrPolygonLocationReference	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::NamedArea::IsoNamedArea	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::NamedArea::NutsNamedArea	«DataType» AreaLocation
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» AreaLocation
Trace	«External»TPEG model::LRC::DLR1LocationReferenceLink	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrRectangle	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegAreaLocation::TpegAreaLocation	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCArea::AlertCArea	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AreaLocation	«DataType» AreaLocation
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» AreaLocation
Trace	«External»TPEG model::LRC::TPEGLocationReferenceLink	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrRectangleLocationReference	«DataType» AreaLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrCircleLocationReference	«DataType» AreaLocation

Table A.10 — LinearLocation Class table

Connector		
Type	From	To
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» LinearLocation
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» LinearLocation
Trace	«D2Class»D2Payload::Extension::TrafficSignals::MapDataPublication::RoadSegment	«DataType» LinearLocation
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» LinearLocation
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LinearReferencing::PointAlongLinearElement::LinearElementByCode	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrLinear::OpenlrLineLocationReference	«DataType» LinearLocation
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::LocationContainer	«DataType» LinearLocation
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::PathHistory	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod4Linear::AlertCMethod4Linear	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LinearReferencing::PointAlongLinearElement::LinearElementByPoints	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod2Linear::AlertCMethod2Linear	«DataType» LinearLocation
Trace	«External»TPEG model::LRC::GLRLocationReferenceLink	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCLinearByCode::AlertCLinearByCode	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::ItineraryByReference	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LinearReferencing::LinearWithinLinearElement::LinearWithinLinearElement	«DataType» LinearLocation
Trace	«External»TPEG model::LRC::DLR1LocationReferenceLink	«DataType» LinearLocation
Trace	«D2VersionedIdentifiable»D2Payload::LocationReferencing::PredefinedLocationsPublication::PredefinedItinerary	«DataType» LinearLocation
Trace	«External»TPEG model::LRC::TPEGLocationReferenceLink	«DataType» LinearLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::Segment	«DataType» LinearLocation

Table A.10 (continued)

Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegLinearLocation::TpegLinearLocation	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::Itinerary	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LinearReferencing::PointAlongLinearElement::LinearElementByLineString	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrLinear::OpenlrLinear	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::ItineraryByIndexedLocations	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LinearReferencing::PointAlongLinearElement::LinearElement	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::NetworkLocation	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LinearLocation	«DataType» LinearLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCLinear	«DataType» LinearLocation
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::EventHistory	«DataType» LinearLocation

Table A.11 — LineString Class table

Connector		
Type	From	To
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» LineString
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» LineString
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::PolygonalLine	«DataType» LineString
Trace	«External»TPEG model::LRC::DLR1LocationReference-Link	«DataType» LineString
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::PathHistory	«DataType» LineString
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» LineString
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» LineString
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::LocationContainer	«DataType» LineString
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::Gml::GmlLineString	«DataType» LineString
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::ComputedSegment	«DataType» LineString
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::Gml::GmlLinearRing	«DataType» LineString

Table A.11 (continued)

Trace	«External»TPEG model::LRC::TPEGLocationReference-Link	«DataType» LineString
Trace	«D2VersionedIdentifiable»D2Payload::LocationReferencing::PredefinedLocationsPublication::PredefinedLocation	«DataType» LineString
Trace	«External»TPEG model::LRC::GLRLocationReferenceLink	«DataType» LineString
Trace	«D2VersionedIdentifiable»D2Payload::LocationReferencing::PredefinedLocationsPublication::PredefinedLocationGroup	«DataType» LineString
Trace	«D2Class»D2Payload::LocationReferencing::PredefinedLocationsPublication::PredefinedLocationReference	«DataType» LineString

Table A.12 — LocationReference Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCLocation	«DataType» LocationReference
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::Location	«DataType» LocationReference
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::LocationContainer	«DataType» LocationReference
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» LocationReference
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LocationReference	«DataType» LocationReference
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LocationByReference	«DataType» LocationReference
Trace	«External»TPEG model::LRC::GLRLocationReferenceLink	«DataType» LocationReference
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::ComputedSegment	«DataType» LocationReference
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» LocationReference
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::MapReference	«DataType» LocationReference
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::ExternalReferencing	«DataType» LocationReference
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» LocationReference
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» LocationReference
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsManagedLogicalLocation	«DataType» LocationReference
Trace	TPEG model::LRC::LocationReferencingContainer	«DataType» LocationReference
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LocationGroupByReference	«DataType» LocationReference

Table A.12 (continued)

Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LocationGroupByList	«DataType» LocationReference
Trace	«D2Class»IVI model::IviContainer::MapLocationContainer	«DataType» LocationReference
Trace	«External»TPEG model::LRC::TPEGLocationReference-Link	«DataType» LocationReference
Trace	«External»TPEG model::LRC::DLR1LocationReference-Link	«DataType» LocationReference
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::LocationGroup	«DataType» LocationReference

Table A.13 — MultiPolygon Class table

Connector		
Type	From	To
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» MultiPolygon
Trace	«External»TPEG model::LRC::TPEGLocationReference-Link	«DataType» MultiPolygon
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» MultiPolygon
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» MultiPolygon
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::Gml::GmlMultiPolygon	«DataType» MultiPolygon
Trace	«External»TPEG model::LRC::GLRLocationReference-Link	«DataType» MultiPolygon
Trace	«External»TPEG model::LRC::DLR1LocationReference-Link	«DataType» MultiPolygon
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» MultiPolygon
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::Gml::GmlPolygon	«DataType» MultiPolygon

Table A.14 — PointByCoordinates Class table

Connector		
Type	From	To
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::EventPoint	«DataType» PointByCoordinates
Trace	«External»TPEG model::LRC::GLRLocationReference-Link	«DataType» PointByCoordinates
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::PointCoordinates	«DataType» PointByCoordinates
Trace	«External»TPEG model::LRC::DLR1LocationReference-Link	«DataType» PointByCoordinates
Trace	«External»TPEG model::LRC::TPEGLocationReference-Link	«DataType» PointByCoordinates
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» PointByCoordinates

Table A.14 (continued)

Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::PointByCoordinates	«DataType» PointByCoordinates
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::PathPoint	«DataType» PointByCoordinates
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» PointByCoordinates
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrGeoCoordinate	«DataType» PointByCoordinates
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» PointByCoordinates
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» PointByCoordinates
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::LocationContainer	«DataType» PointByCoordinates

Table A.15 — PointLocation Class table

Connector		
Type	From	To
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::PathPoint	«DataType» PointLocation
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod2PrimaryPointLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegPointLocation::TpegFramedPoint	«DataType» PointLocation
Trace	«External»TPEG model::LRC::DLR1LocationReferenceLink	«DataType» PointLocation
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod4SecondaryPointLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrPointAlongLine	«DataType» PointLocation
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::LocationContainer	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrLastLocationReferencePoint	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::AbsolutePosition	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::HeightCoordinate	«DataType» PointLocation
Trace	«External»TPEG model::LRC::TMCLocationReferenceLink	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrBaseReferencePoint	«DataType» PointLocation

Table A.15 (continued)

Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::AbsolutePositionsWAltitude	«DataType» PointLocation
Trace	«D2Class»D2Payload::PayloadPublication::Parking::Classes::PointByJunction::PointLocationForParking	«DataType» PointLocation
Trace	«External»TPEG model::LRC::ETLLocationReferenceLink	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::DeltaPositions	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointDestination	«DataType» PointLocation
Trace	«External»TPEG model::LRC::VICSLinkReferenceLink	«DataType» PointLocation
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::ReferencePosition	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod4Point::AlertCMethod4Point	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrLocationReferencePoint	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCPoint	«DataType» PointLocation
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod2Point::AlertCMethod2Point	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegPointLocation::TpegJunction	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrPointLocationReference	«DataType» PointLocation
Trace	«External»TPEG model::LRC::KoreanNodeLinkLocationReferenceLink	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegPointLocation::TpegPointLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegPointLocation::TpegSimplePoint	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegPointLocation::TpegPoint	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::AbsolutePositionWAltitude	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::DeltaReferencePositions	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrPoiWithAccessPoint	«DataType» PointLocation

Table A.15 (continued)

Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::DeltaReferencePosition	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::TpegLoc::TpegPointLocation::TpegNonJunctionPoint	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::ReferencePosition	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::Altitude	«DataType» PointLocation
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod2SecondaryPointLocation	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::AbsolutePositions	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrArea::OpenlrPolygonCorners	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::AlertC::AlertCMethod4PrimaryPointLocation	«DataType» PointLocation
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::IVISpecific::DeltaPosition	«DataType» PointLocation
Trace	«External»TPEG model::LRC::GLRLocationReference-Link	«DataType» PointLocation
Trace	«External»TPEG model::LRC::TPEGLocationReference-Link	«DataType» PointLocation
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::Altitude	«DataType» PointLocation
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::OpenLR::OpenlrPoint::OpenlrBasePointLocation	«DataType» PointLocation

Table A.16 — PositionConfidence Class table

Connector		
Type	From	To
Trace	«External»TPEG model::LRC::DLR1LocationReference-Link	«DataType» PositionConfidence
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» PositionConfidence
Trace	«External»TPEG model::LRC::GLRLocationReference-Link	«DataType» PositionConfidence
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::AltitudeConfidence	«DataType» PositionConfidence
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::PosConfidenceEllipse	«DataType» PositionConfidence
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::PositionAccuracy	«DataType» PositionConfidence
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::PointCoordinates::PositionConfidenceEllipse	«DataType» PositionConfidence

Table A.16 (continued)

Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» PositionConfidence
Trace	«External»TPEG model::LRC::TPEGLocationReferenceLink	«DataType» PositionConfidence
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» PositionConfidence
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» PositionConfidence

Table A.17 — TransversalLocationReference Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::LocationReferencing::LocationReference::SupplementaryPositionalDescription::SupplementaryPositionalDescription	«DataType» TransversalLocationReference
Trace	«External»TPEG model::TrafficEventCompact::RestrictionLocation	«DataType» TransversalLocationReference
Trace	«External»TPEG model::LRC::TPEG2LocationReferenceLink	«DataType» TransversalLocationReference
Trace	«External»TPEG model::TrafficEventCompact::ProblemLocation	«DataType» TransversalLocationReference
Trace	«External»TPEG model::TrafficEventCompact::SegmentLocation	«DataType» TransversalLocationReference
Trace	«External»TPEG model::LRC::DLR1LocationReferenceLink	«DataType» TransversalLocationReference
Trace	«External»TPEG model::LRC::TPEGLocationReferenceLink	«DataType» TransversalLocationReference
Trace	«External»TPEG model::LRC::GLRLocationReferenceLink	«DataType» TransversalLocationReference

A.10 "SituationDataset" package

[Table A.18](#), [A.19](#) and [A.20](#) show the traceability matrices for the "SituationDataset" package.

Table A.18 — Situation Class table

Connector		
Type	From	To
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::SituationContainer	«FeatureType» Situation
Trace	«D2Identifiable»D2Payload::PayloadPublication::Situation::Classes::Situation	«FeatureType» Situation
Trace	«D2Class»IVI model::IviContainer::IviContainer	«FeatureType» Situation
Trace	TPEG model::TrafficEventCompact::TECMessage	«FeatureType» Situation

Table A.19 — SituationDataset Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::Situation::SituationPublication::SituationPublication	«FeatureType» SituationDataset
Trace	«D2Class»D2Payload::Extension::TrafficSignals::SignalPhaseAndTimingPublication::SignalPhaseAndTimingPublication	«FeatureType» SituationDataset
Trace	«D2Class»D2Payload::Extension::TrafficSignals::MapDataPublication::MapDataPublication	«FeatureType» SituationDataset
Trace	«D2Class»IVI model::PayloadPublication::IviContainers	«FeatureType» SituationDataset

Table A.20 — SituationElement Class table

Connector		
Type	From	To
Trace	«D2VersionedIdentifiable»D2Payload::PayloadPublication::Situation::Classes::SituationRecord	«FeatureType» SituationElement
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::SituationContainer	«FeatureType» SituationElement
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::AlacarteContainer::AlacarteContainer	«FeatureType» SituationElement
Trace	TPEG model::TrafficEventCompact::TECMessage	«FeatureType» SituationElement
Dependency	«DataType»DataSet::Common::DataManagement::LifeCycleManagement	«FeatureType» SituationElement

A.11 "OperatorAction" package

Tables A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29 and A.30 show the traceability matrices for the "OperatorAction" package.

Table A.21 — DiversionManagement Class table

Connector		
Type	From	To
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec208:FollowDiversion	«FeatureType» DiversionManagement
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» DiversionManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» DiversionManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec008:DiversionRoadType	«FeatureType» DiversionManagement

Table A.21 (continued)

Trace	TPEG model::TrafficEventCompact::DiversionRoute	«FeatureType» DiversionManagement
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::Re-routingManagement	«FeatureType» DiversionManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» DiversionManagement

Table A.22 — GeneralManagement Class table

Connector		
Type	From	To
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec213:DriveCarefully	«FeatureType» GeneralManagement
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::GeneralInstructionOrMessageToRoadUsers	«FeatureType» GeneralManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec203:DrivingNotAllowed	«FeatureType» GeneralManagement
Trace	TPEG model::TrafficEventCompact::VehicleRestriction	«FeatureType» GeneralManagement
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::GeneralNetworkManagement	«FeatureType» GeneralManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» GeneralManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» GeneralManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec202:OvertakingNotAllowed	«FeatureType» GeneralManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECDataTypes::DataTypes::typ007:Priority	«FeatureType» GeneralManagement
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» GeneralManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec207:GiveWayToVehiclesFromBehind	«FeatureType» GeneralManagement

Table A.23 — NetworkManagement Class table

Connector		
Type	From	To
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» NetworkManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::TemporarySpeedLimitSection	«FeatureType» NetworkManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» NetworkManagement
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::NetworkManagement	«FeatureType» NetworkManagement

Table A.23 (continued)

Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» NetworkManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec214:DoNotLeaveYourVehicle	«FeatureType» NetworkManagement
Trace	TPEG model::TrafficEventCompact::TemporarySpeedLimit	«FeatureType» NetworkManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec010:AtGradeJunctionClosure	«FeatureType» NetworkManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec216:UseTollLanes	«FeatureType» NetworkManagement

Table A.24 — OperatorAction Class table

Connector		
Type	From	To
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» OperatorAction
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» OperatorAction
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::OperatorAction	«FeatureType» OperatorAction
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» OperatorAction
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec200:SubAdviceType	«FeatureType» OperatorAction

Table A.25 — ParkingManagement Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::Parking::Classes::ParkingStatusRelated::ParkingRecordStatus	«FeatureType» ParkingManagement
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» ParkingManagement
Trace	«D2VersionedIdentifiable»D2Payload::PayloadPublication::Parking::Classes::ParkingSite::ParkingTable	«FeatureType» ParkingManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» ParkingManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» ParkingManagement

Table A.26 — RoadLayoutManagement Class table

Connector		
Type	From	To
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec104:NarrowLanes	«FeatureType» RoadLayoutManagement
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::CauseCode	«FeatureType» RoadLayoutManagement
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» RoadLayoutManagement
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::ClosedLanes	«FeatureType» RoadLayoutManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» RoadLayoutManagement
Trace	«D2Class»DENM model::DecentralizedEnvironmentalNotificationMessage::DecentralisedEnvironmentalNotificationMessage	«FeatureType» RoadLayoutManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec004:LaneRestriction	«FeatureType» RoadLayoutManagement
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::RoadOrCarriagewayOrLaneManagement	«FeatureType» RoadLayoutManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» RoadLayoutManagement

Table A.27 — RoadsideAssistance Class table

Connector		
Type	From	To
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» RoadsideAssistance
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» RoadsideAssistance
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» RoadsideAssistance
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::RoadsideAssistance	«FeatureType» RoadsideAssistance

Table A.28 — SignSetting Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsPictogram	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::Vms	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsSupplementaryPanel	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsSupplementaryPanelCharacteristics	«DataType» SignSetting

Table A.28 (continued)

Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsStatus::VmsStatus	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsMessage	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsPictogramDisplayArea	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::Fault::VmsUnitFault	«DataType» SignSetting
Trace	«D2VersionedIdentifiable»D2Payload::PayloadPublication::Vms::Classes::VmsUnit	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsSupplementaryPictogram	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsText	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsStatus::VmsDynamicConfiguration	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsMessage::VmsTextLine	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsPictogramDisplayCharacteristics	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsStatus::VmsUnitStatus	«DataType» SignSetting
Trace	«D2Class»D2Payload::PayloadPublication::Vms::Classes::VmsRelated::VmsTextDisplayCharacteristics	«DataType» SignSetting
Trace	«D2Class»D2Payload::Extension::TrafficSignals::MapDataPublication::Geometry::RegulatorySpeedLimit	«DataType» SignSetting

Table A.29 — SpeedManagement Class table

Connector		
Type	From	To
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» SpeedManagement
Trace	TPEG model::TrafficEventCompact::TemporarySpeedLimit	«FeatureType» SpeedManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» SpeedManagement
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::SpeedManagement	«FeatureType» SpeedManagement
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::speedLimitMin	«FeatureType» SpeedManagement
Trace	«D2Class»D2Payload::Extension::TrafficSignals::SignalPhaseAndTimingPublication::AdvisorySpeed	«FeatureType» SpeedManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» SpeedManagement

Table A.29 (continued)

Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::TemporarySpeedLimitSection	«FeatureType» SpeedManagement
Trace	«D2Class»IVI model::CommonDataDictionary::DataFrames::External::speedLimitMax	«FeatureType» SpeedManagement
Trace	«D2Class»D2Payload::Extension::TrafficSignals::MapDataPublication::Geometry::RegulatorySpeedLimit	«FeatureType» SpeedManagement

Table A.30 — WinterDrivingManagement Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::OperatorAction::NetworkManagement::WinterDrivingManagement	«FeatureType» WinterDrivingManagement
Trace	TPEG model::TrafficEventCompact::Advice	«FeatureType» WinterDrivingManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec106:SlipperyRoad	«FeatureType» WinterDrivingManagement
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec005:AdviceCode	«FeatureType» WinterDrivingManagement
Trace	«DataStructure»TPEG model::TrafficEventCompact::TECDataTypes::RestrictionType	«FeatureType» WinterDrivingManagement

A.12 "Parking" package

There is no traceability matrix for this package

A.13 "SPaT" package

[Tables A.31](#) and [A.32](#) show the traceability matrices for the "SPaT" package.

Table A.31 — MapData Class table

Connector		
Type	From	To
Dependency	«FeatureType»DataSet::SituationDataset::SPaT::SignalPhaseAndTiming	«FeatureType» MapData

Table A.32 — SignalPhaseAndTiming Class table

Connector		
Type	From	To
Dependency	«FeatureType»DataSet::SituationDataset::SPaT::SignalPhaseAndTiming	«FeatureType» MapData
Trace	«D2VersionedIdentifiable»D2Payload::Extension::TrafficSignals::SignalPhaseAndTimingPublication::SignalPhaseAndTiming	«FeatureType» SignalPhaseAndTiming
Trace	«D2Class»D2Payload::Extension::TrafficSignals::MapDataPublication::MapData	«FeatureType» SignalPhaseAndTiming

A.14 "TrafficElement" package

Tables A.33, A.34, A.35, A.36, A.37, A.38, A.39, A.40, A.41 and A.42 show the traceability matrices for the "TrafficElement" package.

Table A.33 — AbnormalTraffic Class table

Connector		
Type	From	To
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec129:TimeDelay	«FeatureType» AbnormalTraffic
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec101:TrafficCongestion	«FeatureType» AbnormalTraffic
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec127:DangerousEndOfQueue	«FeatureType» AbnormalTraffic
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::CauseCode	«FeatureType» AbnormalTraffic
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec120:RecklessPersons	«FeatureType» AbnormalTraffic
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec006:Tendency	«FeatureType» AbnormalTraffic
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::TrafficElement::AbnormalTraffic	«FeatureType» AbnormalTraffic

Table A.34 — Accident Class table

Connector		
Type	From	To
Maps To	«D2Class»D2Payload::PayloadPublication::Situation::Classes::TrafficElement::Accident::Accident	«FeatureType» Accident
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec102:Accident	«FeatureType» Accident
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::TrafficElement::Accident::Accident	«FeatureType» Accident
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::CauseCode	«FeatureType» Accident

Table A.35 — Activity Class table

Connector		
Type	From	To
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::TrafficElement::Activity::AuthorityOperation	«FeatureType» Activity
Trace	«Enumeration»TPEG model::TrafficEventCompact::TECTables::tec126:SlowMovingVehicles	«FeatureType» Activity
Trace	«D2Class»D2Payload::PayloadPublication::Situation::Classes::TrafficElement::Activity::Activity	«FeatureType» Activity
Trace	«D2Class»DENM model::CommonDataDictionary::DataFrames::CauseCode	«FeatureType» Activity
Maps To	«D2Class»D2Payload::PayloadPublication::Situation::Classes::TrafficElement::Activity::Activity	«FeatureType» Activity