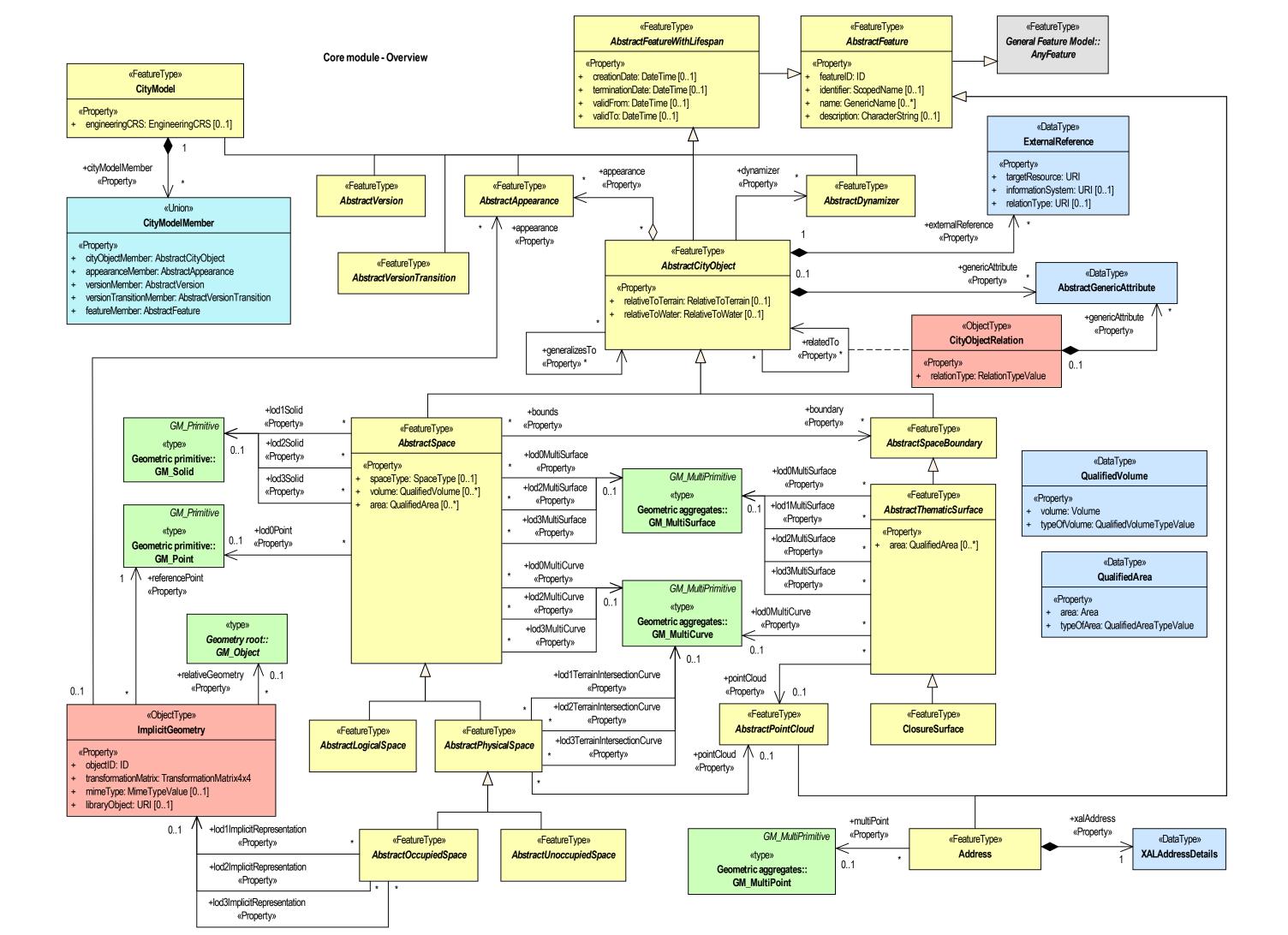
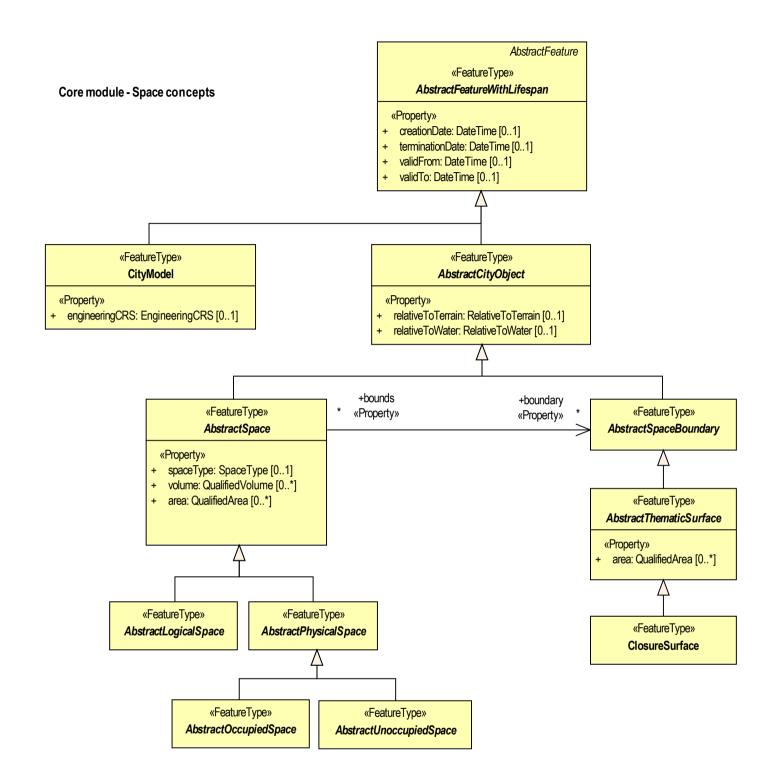
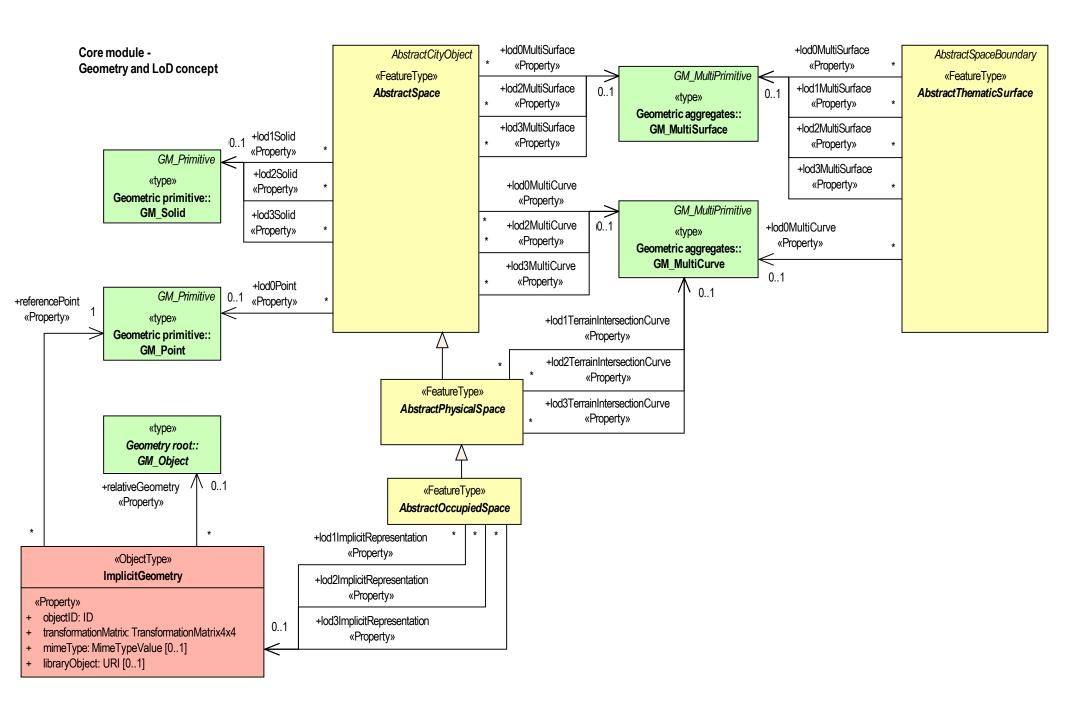


Color Scheme

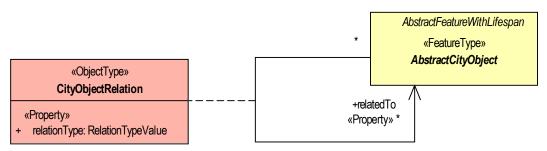
«FeatureType» Geometry class Yellow (255 255 179) Green (204 255 185) «TopLevelFeatureType» **CRS** class Forest greeen (188 225 188) Orange (255 220 165) «ObjectType» Construction / Generics Red (255 180 170) Old rose (226 203 203) module class «DataType» Core module class Pale rose (251 233 233) Blue (204 230 255) «Union» GeneralFeatureModel Turquoise (190 245 250) Grey (225 225 225) class «CodeList» Comment + OCL constraint White (255 255 255) Violet (240 195 255) «enumeration» Lilac (200 195 255) «BasicType» Brown (217 203 178)

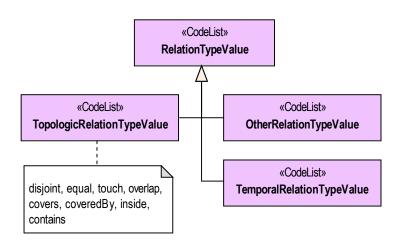




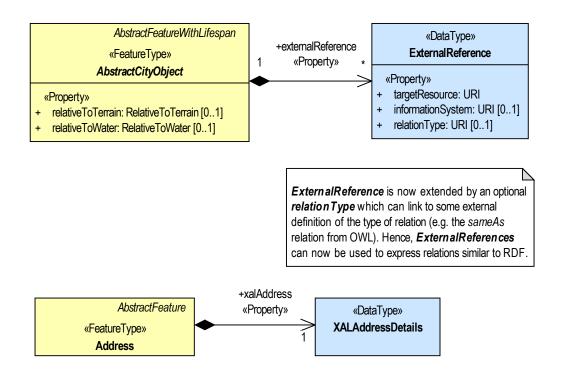


Core module - City object relations





Core module - Miscellaneous



Core module - Basic Types, Enumerations, and Code lists

«enumeration» RelativeToTerrain entirelyAboveTerrain substantiallyAboveTerrain substantiallyAboveAndBelowTerrain

substantiallyBelowTerrain

entirelyBelowTerrain

«enumeration» RelativeToWater

entirelyAboveWaterSurface substantiallyAboveWaterSurface substantiallyAboveAndBelowWaterSurface substantiallyBelowWaterSurface entirelyBelowWaterSurface temporarilyAboveAndBelowWaterSurface

«enumeration» SpaceType

dosed open semiOpen

«DataType» Occupancy

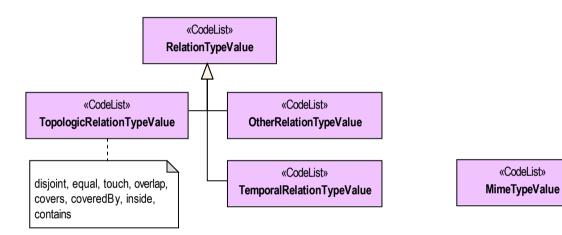
- «Property»
- numberOfOccupants: Integer
- interval: IntervalValue [0..1] occupantType: OccupantTypeValue [0..1]

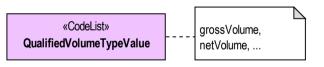
«CodeList» IntervalValue

weekday, weekend, weekday_9to12, weekday_12to17, weekday_8to16, daytime, nighttime, daily 9to12, ...

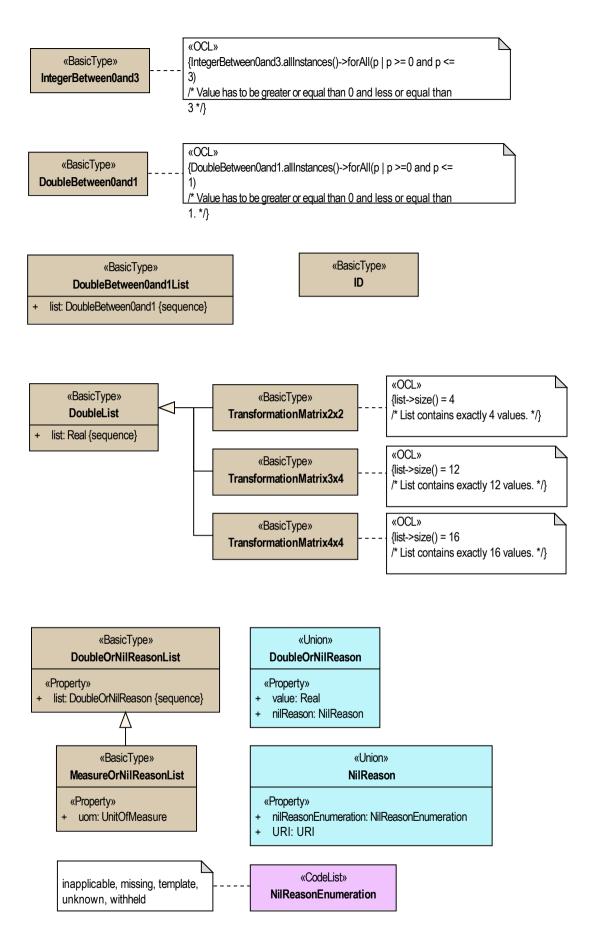
«CodeList»

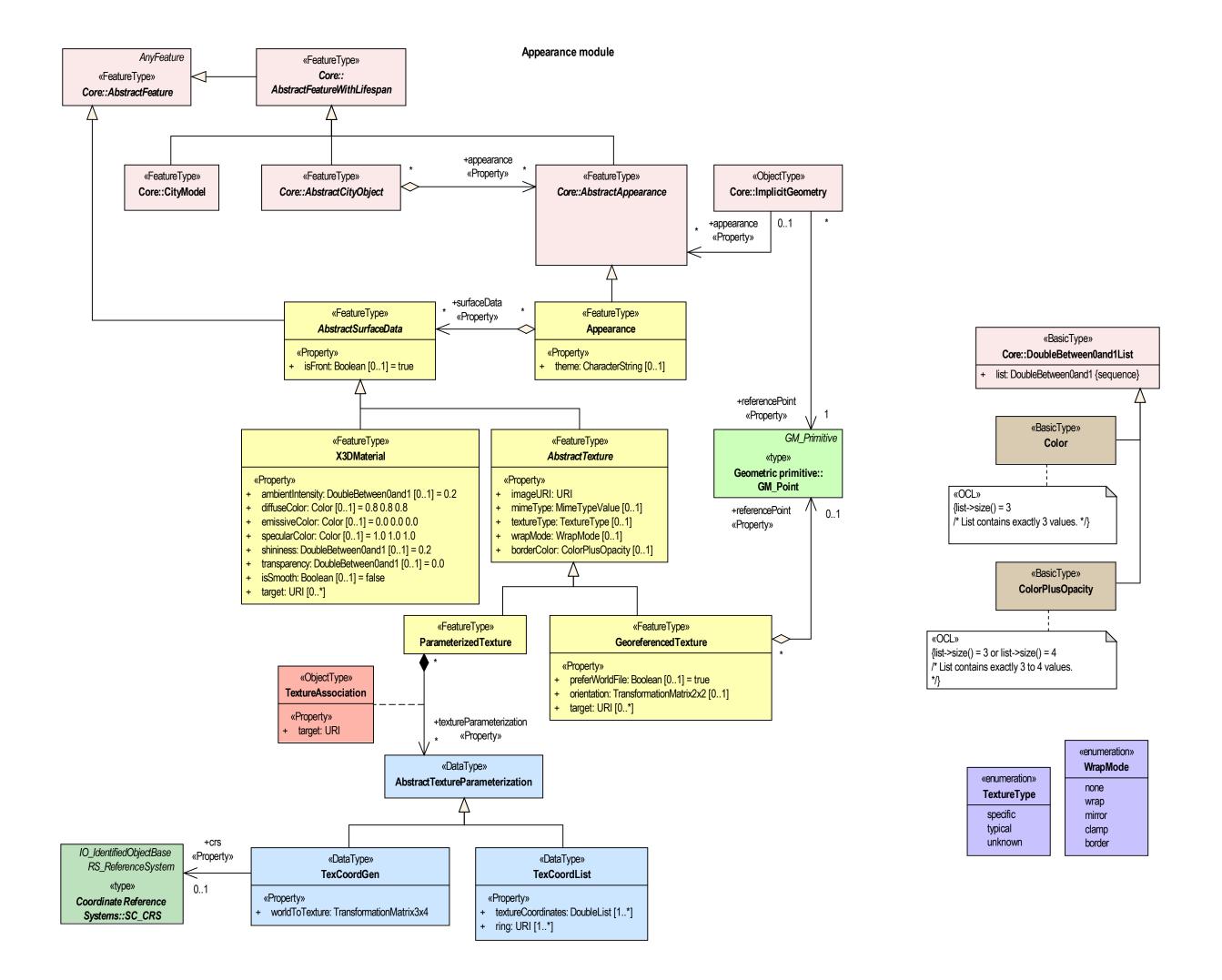
residents, workers, students, patients, OccupantTypeValue visitors, othersOrCombination



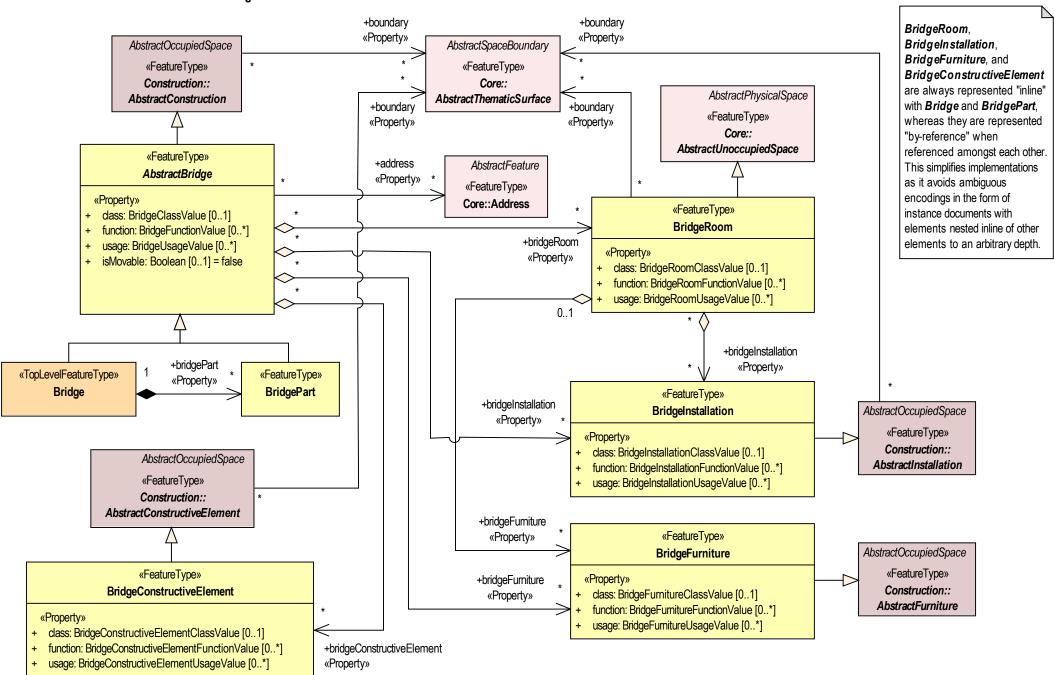


«CodeList» QualifiedAreaTypeValue surfaceArea, wallSurfaceArea, sharedWallSurfaceArea, roofSurfaceArea, wallWindowArea, roofWindowArea, wallGlazingArea, ...





Bridge module



Building module - Code lists

«CodeList»

BuildingClassValue

«CodeList»

BuildingInstallationClassValue

«CodeList»

BuildingFurnitureClassValue

«CodeList»

RoofTypeValue

«CodeList» **BuildingFunctionValue**

«CodeList»

BuildingInstallationFunctionValue

«CodeList»

«CodeList»

BuildingFurnitureFunctionValue

«CodeList»

RoomElevationReferenceValue

 ${\it ``CodeList"}$

BuildingUsageValue BuildingInstallationUsageValue

«CodeList» **BuildingFurnitureUsageValue**

«CodeList»

BuildingRoomClassValue

 $\label{eq:CodeList} $$\operatorname{BuildingConstructiveElementClassValue}$$

«CodeList» **BuildingSubdivisionClassValue**

«CodeList»

BuildingRoomFunctionValue

 $\label{eq:codeList} $$\operatorname{BuildingConstructiveElementFunctionValue}$$

«CodeList»

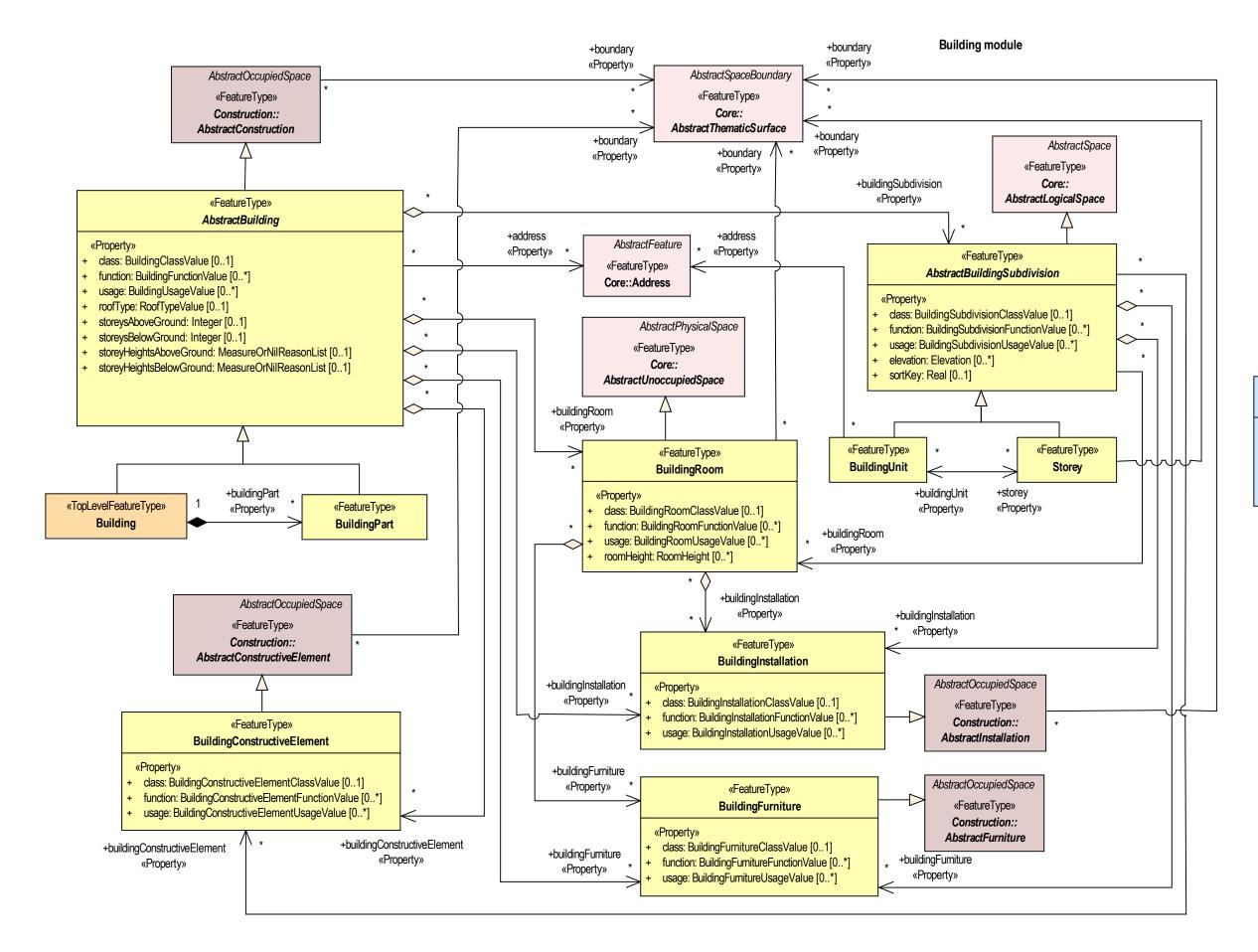
BuildingSubdivisionFunctionValue

«CodeList»

BuildingRoomUsageValue

 $\label{eq:CodeList} $$ \textbf{BuildingConstructiveElementUsageValue} $$$

«CodeList» **BuildingSubdivisionUsageValue**



BuildingRoom, BuildingInstallation,
BuildingFurniture, and
BuildingConstructiveElement are always
represented "inline" with Building and
BuildingPart, whereas they are represented
"by-reference" when referenced amongst each

This simplifies implementations as it avoids ambiguous encodings in the form of instance documents with elements nested inline of other elements to an arbitrary depth.

«DataType» RoomHeight

«Property»

- highReference: RoomElevationReferenceValue
- lowReference: RoomElevationReferenceValue
- + status: HeightStatusValue
- value: Length

Building module - Code lists

«CodeList»

BuildingClassValue

«CodeList»

BuildingInstallationClassValue

«CodeList»

BuildingFurnitureClassValue

«CodeList»

RoofTypeValue

«CodeList» **BuildingFunctionValue**

«CodeList»

BuildingInstallationFunctionValue

«CodeList»

«CodeList»

BuildingFurnitureFunctionValue

«CodeList»

RoomElevationReferenceValue

 ${\it ``CodeList"}$

BuildingUsageValue BuildingInstallationUsageValue

«CodeList» **BuildingFurnitureUsageValue**

«CodeList»

BuildingRoomClassValue

 $\label{eq:CodeList} $$\operatorname{BuildingConstructiveElementClassValue}$$

«CodeList» **BuildingSubdivisionClassValue**

«CodeList»

BuildingRoomFunctionValue

 $\label{eq:codeList} $$\operatorname{BuildingConstructiveElementFunctionValue}$$

«CodeList»

BuildingSubdivisionFunctionValue

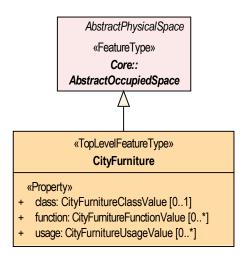
«CodeList»

BuildingRoomUsageValue

 $\label{eq:CodeList} $$ \textbf{BuildingConstructiveElementUsageValue} $$$

«CodeList» **BuildingSubdivisionUsageValue**

CityFurniture module



CityFurniture module - Code lists

«CodeList»

CityFurnitureClassValue

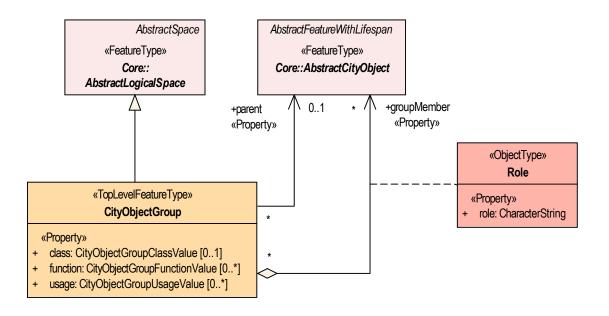
«CodeList»

CityFurnitureFunctionValue

«CodeList»

CityFurnitureUsageValue

CityObjectGroup module



CityObjectGroup module - Code lists

«CodeList»

CityObjectGroupClassValue

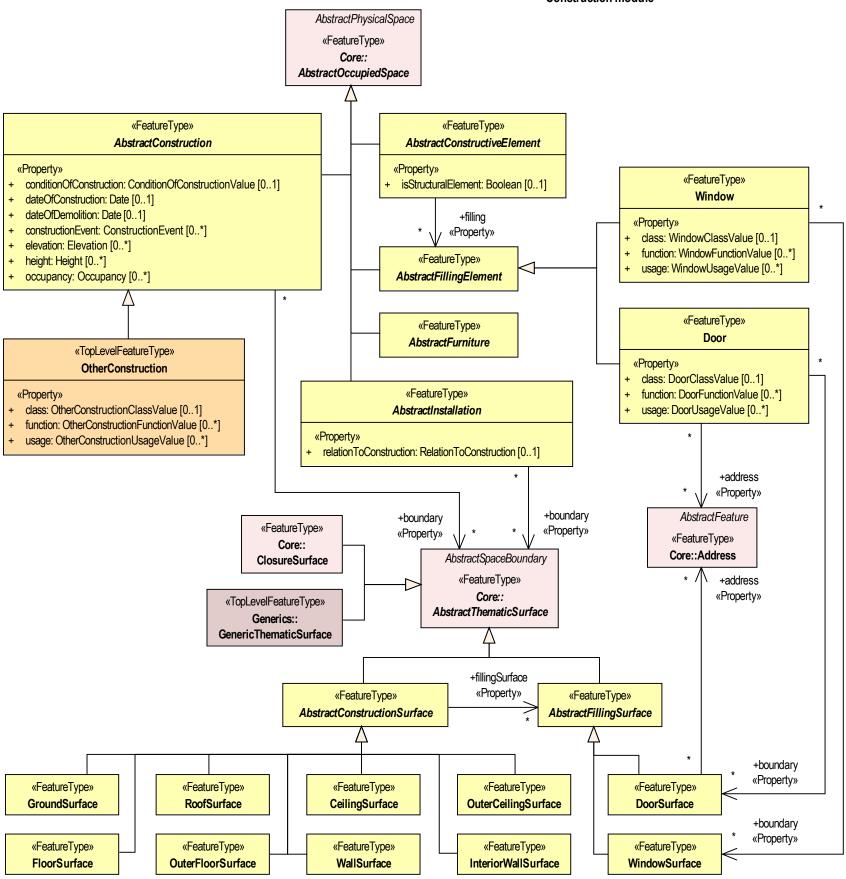
«CodeList»

CityObjectGroupFunctionValue

«CodeList»

CityObjectGroupUsageValue

Construction module



«enumeration»

ConditionOfConstructionValue

declined demolished functional projected ruin underConstruction

«enumeration»

RelationToConstruction

inside outside bothInsideAndOutside

«DataType» Elevation

«Property»

- elevationReference: ElevationReferenceValue
- elevationValue: DirectPosition

«DataType» **Height**

«Property»

- highReference: ElevationReferenceValue
- lowReference: ElevationReferenceValue
- status: HeightStatusValue
- value: Length

«enumeration» HeightStatusValue

estimated

measured

«DataType» ConstructionEvent

«Property»

- event: EventValue
- dateOfEvent: Date
- description: CharacterString [0..1]

Construction module - Code lists

«CodeList»

OtherConstructionClassValue

«CodeList»

OtherConstructionFunctionValue

«CodeList»

OtherConstructionUsageValue

«CodeList»
WindowClassValue

«CodeList»

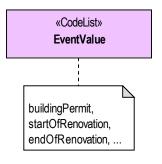
WindowFunctionValue

«CodeList»
WindowUsageValue

«CodeList» **DoorClassValue**

«CodeList» **DoorFunctionValue**

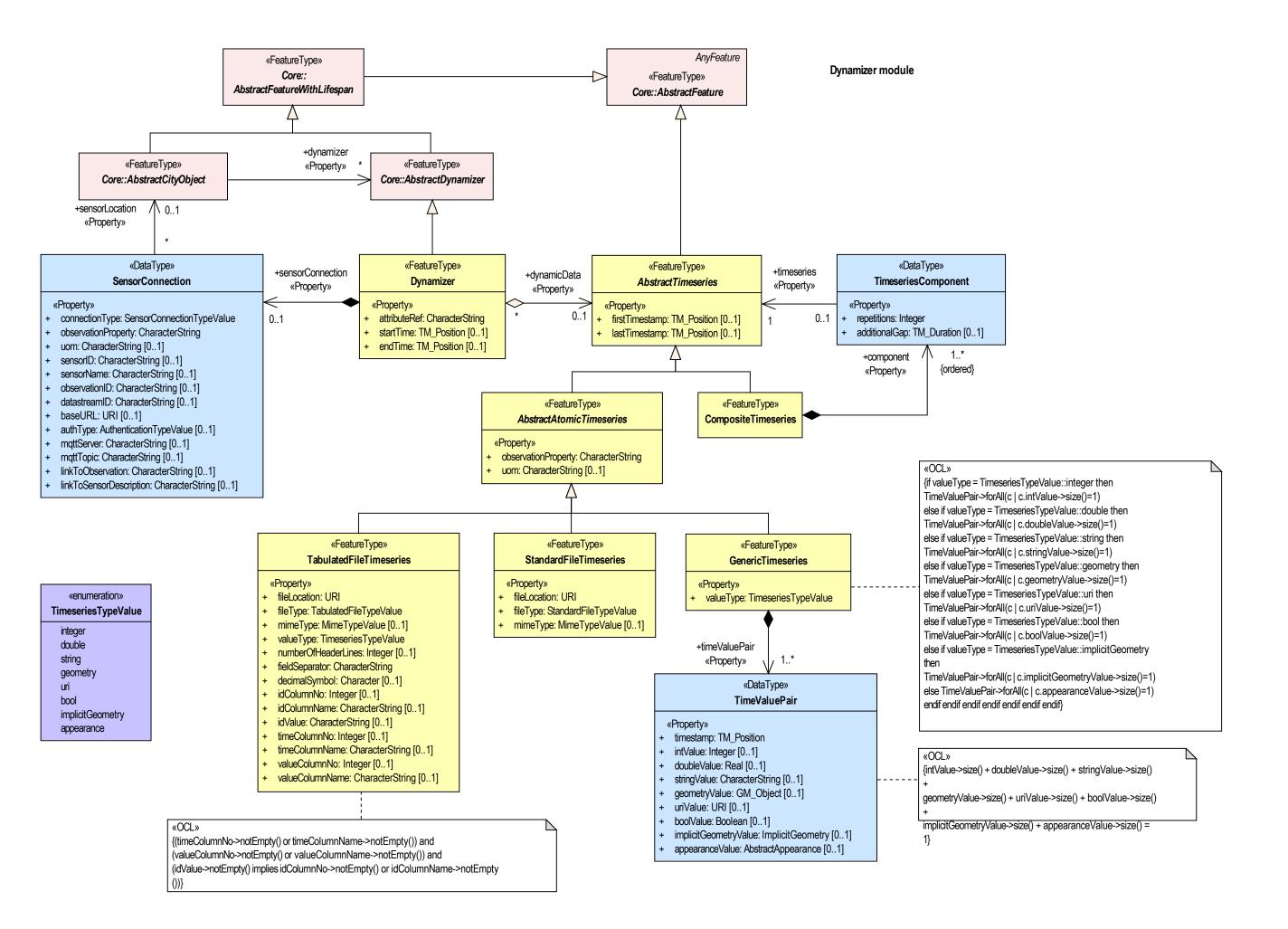
«CodeList» **DoorUsageValue**



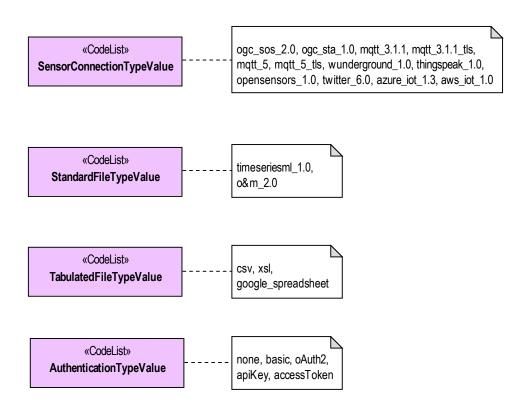
«CodeList»

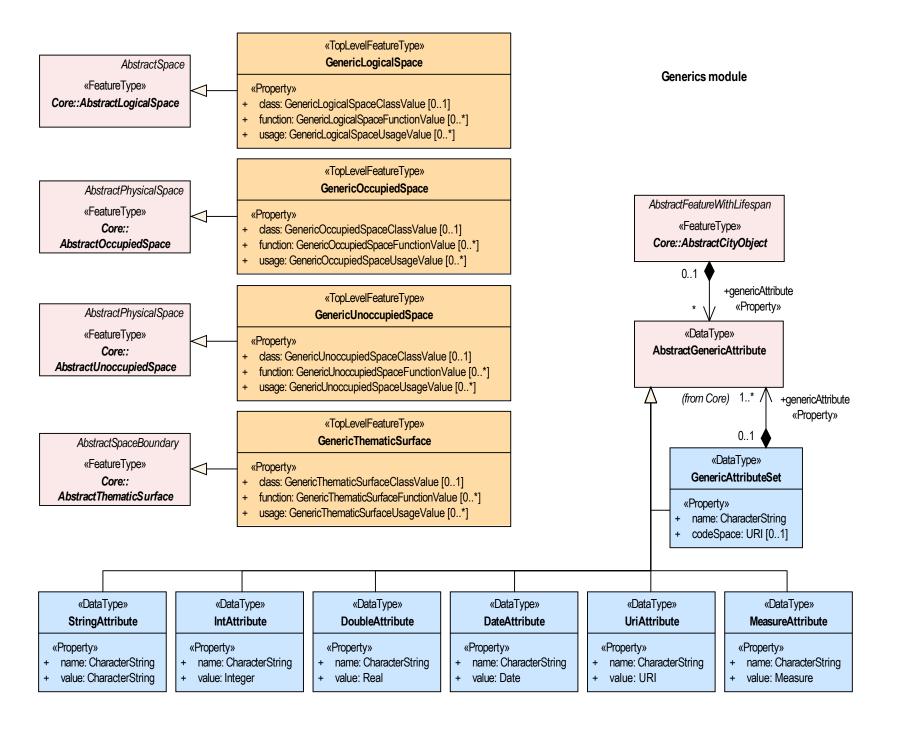
ElevationReferenceValue

aboveGroundEnvelope, bottomOfConstruction, entrancePoint, generalEave, generalGround, generalRoof, generalRoofEdge, highestEave, highestGroundPoint, highestPoint, highestRoofEdge, lowestEave, lowestFloorAboveGround, lowestGroundPoint, lowestRoofEdge, topOfConstruction



Dynamizer module - Code lists





Generics module - Code lists

«CodeList»

GenericLogicalSpaceClassValue

«CodeList»

GenericLogicalSpaceFunctionValue

«CodeList»

GenericLogicalSpaceUsageValue

«CodeList»

GenericOccupiedSpaceClassValue

«CodeList»

GenericOccupiedSpaceFunctionValue

«CodeList»

GenericOccupiedSpaceUsageValue

«CodeList»

GenericUnoccupiedSpaceClassValue

«CodeList»

GenericUnoccupiedSpaceFunctionValue

«CodeList»

GenericUnoccupiedSpaceUsageValue

«CodeList»

GenericThematicSurfaceClassValue

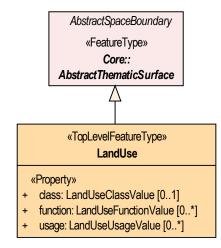
«CodeList»

GenericThematicSurfaceFunctionValue

«CodeList»

GenericThematicSurfaceUsageValue

LandUse module



LandUse module - Code lists

«CodeList»

LandUseClassValue

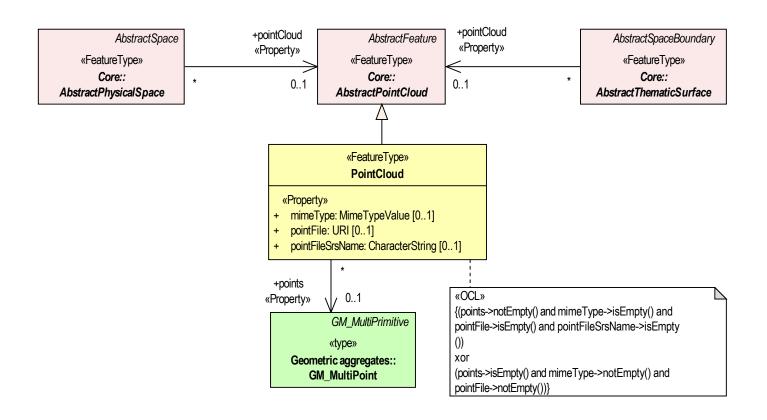
«CodeList»

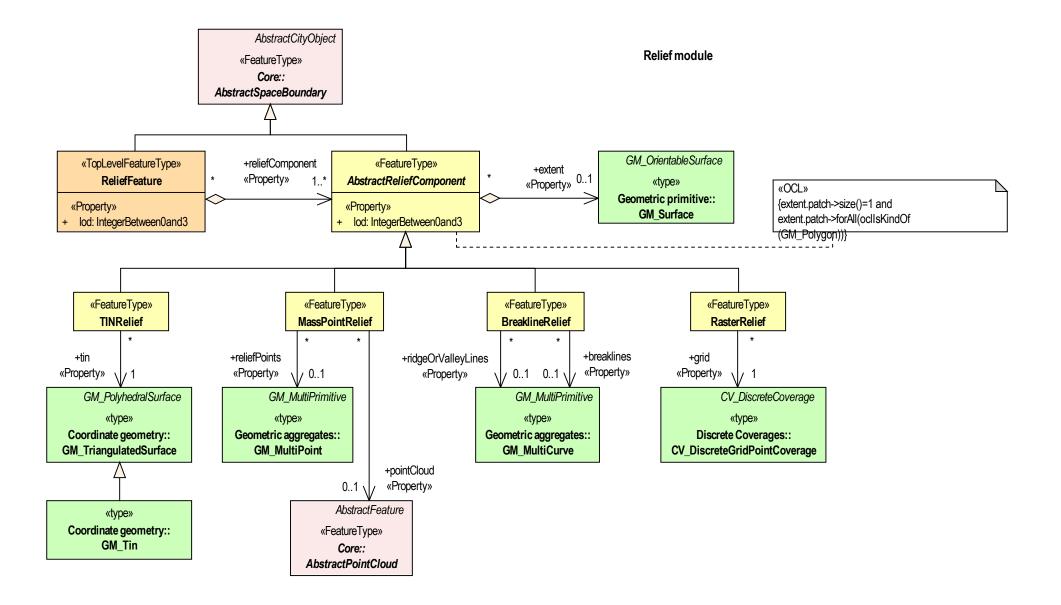
LandUseFunctionValue

«CodeList»

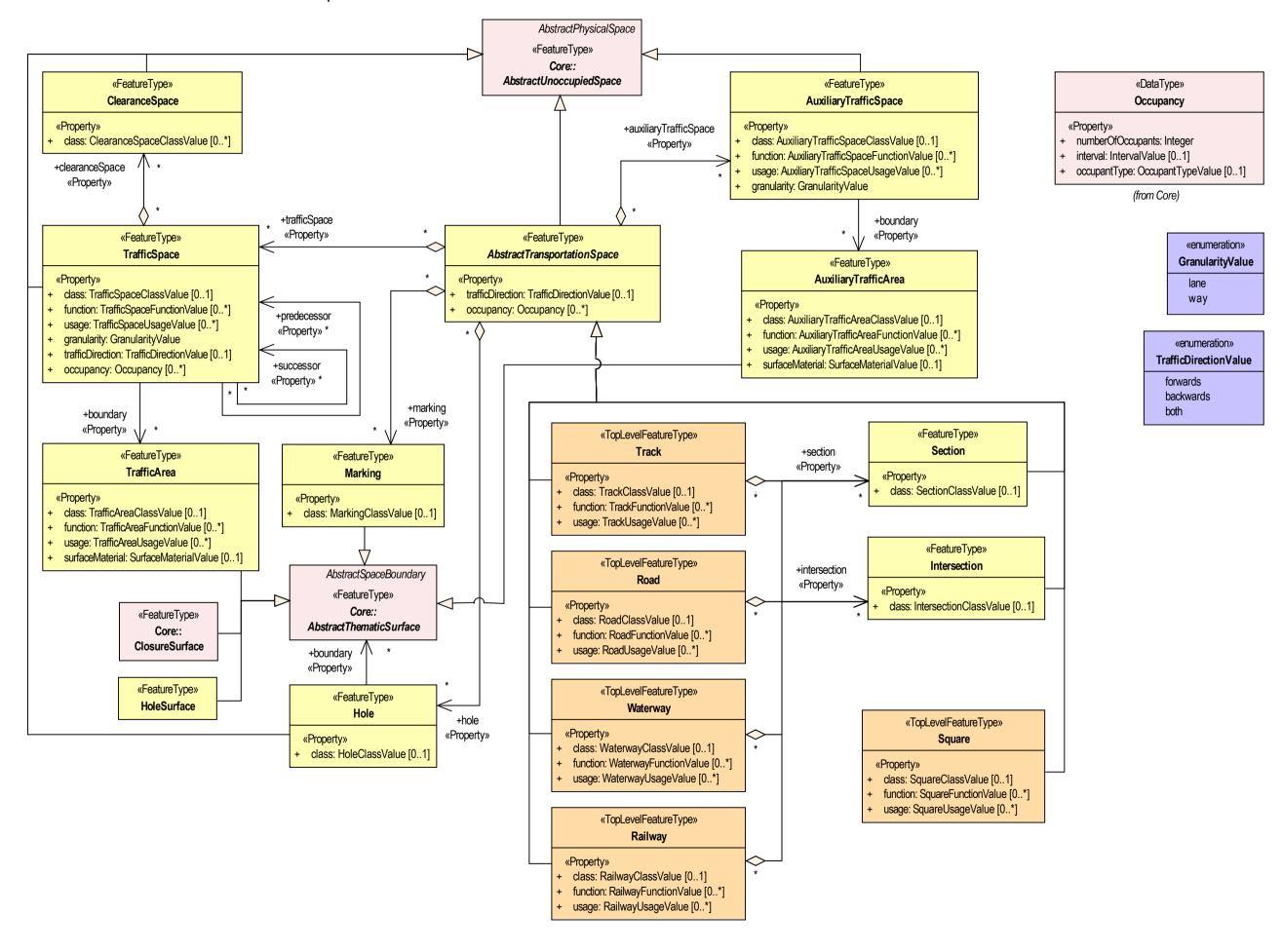
LandUseUsageValue

PointCloud module





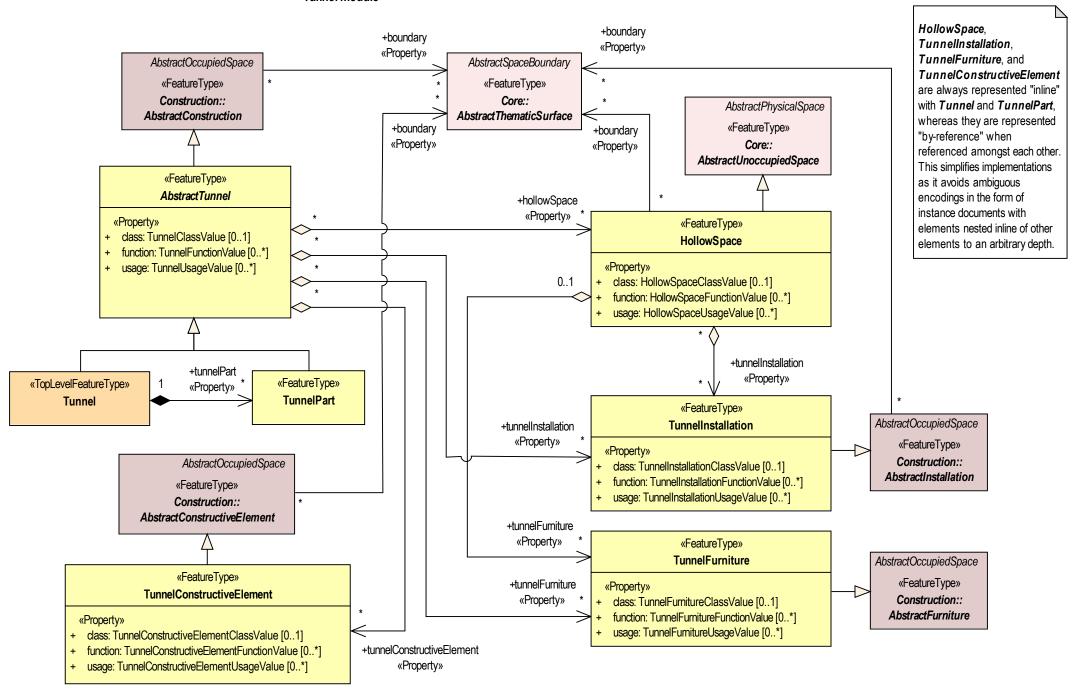
Transportation module



Transportation module - Code lists

«CodeList» «CodeList» «CodeList» «CodeList» **TransportationSpaceClassValue TrafficSpaceClassValue** ClearanceSpaceClassValue TrafficAreaClassValue «CodeList» «CodeList» «CodeList» **TransportationSpaceFunctionValue** TrafficSpaceFunctionValue **TrafficAreaFunctionValue** «CodeList» «CodeList» Drain, Manhole, MarkingClassValue HoleClassValue RoadwayDamage «CodeList» «CodeList» «CodeList» **TransportationSpaceUsageValue TrafficSpaceUsageValue** TrafficAreaUsageValue «Codel ist» «Codel ist» «Codel ist» «Codel ist» AuxiliaryTrafficSpaceClassValue AuxiliaryTrafficAreaClassValue SectionClassValue SurfaceMaterialValue «CodeList» «CodeList» AuxiliaryTrafficSpaceFunctionValue AuxiliaryTrafficAreaFunctionValue «CodeList» IntersectionClassValue «Codel ist» «Codel ist» AuxiliaryTrafficSpaceUsageValue AuxiliaryTrafficAreaUsageValue «CodeList» «CodeList» «CodeList» «CodeList» «CodeList» RailwayClassValue WaterwayClassValue **TrackClassValue** RoadClassValue SquareClassValue «CodeList» «CodeList» «CodeList» «CodeList» «CodeList» WaterwayFunctionValue RailwayFunctionValue **TrackFunctionValue** RoadFunctionValue SquareFunctionValue «CodeList» «CodeList» «CodeList» «CodeList» «CodeList» TrackUsageValue RoadUsageValue WaterwayUsageValue RailwayUsageValue SquareUsageValue

Tunnel module



Tunnel module - Code lists

«CodeList»
TunnelClassValue

«CodeList»

TunnelInstallationClassValue

«CodeList»

TunnelFurnitureClassValue

«CodeList»

TunnelFunctionValue

«CodeList»

TunnelInstallationFunctionValue

«CodeList»

TunnelFurnitureFunctionValue

«CodeList» **TunnelUsageValue**

«CodeList»

TunnelInstallationUsageValue

«CodeList»

TunnelFurnitureUsageValue

«CodeList»

HollowSpaceClassValue

«CodeList»

TunnelConstructiveElementClassValue

«CodeList»

HollowSpaceFunctionValue

«CodeList»

TunnelConstructiveElementFunctionValue

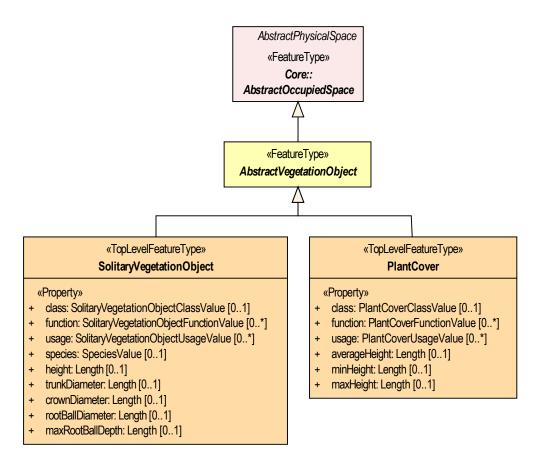
«CodeList»

HollowSpaceUsageValue

«CodeList»

TunnelConstructiveElementUsageValue

Vegetation module



Vegetation module - Code lists

«CodeList»

SolitaryVegetationObjectClassValue

«CodeList»

PlantCoverClassValue

«CodeList»

SpeciesValue

«CodeList»

SolitaryVegetationObjectFunctionValue

«CodeList»

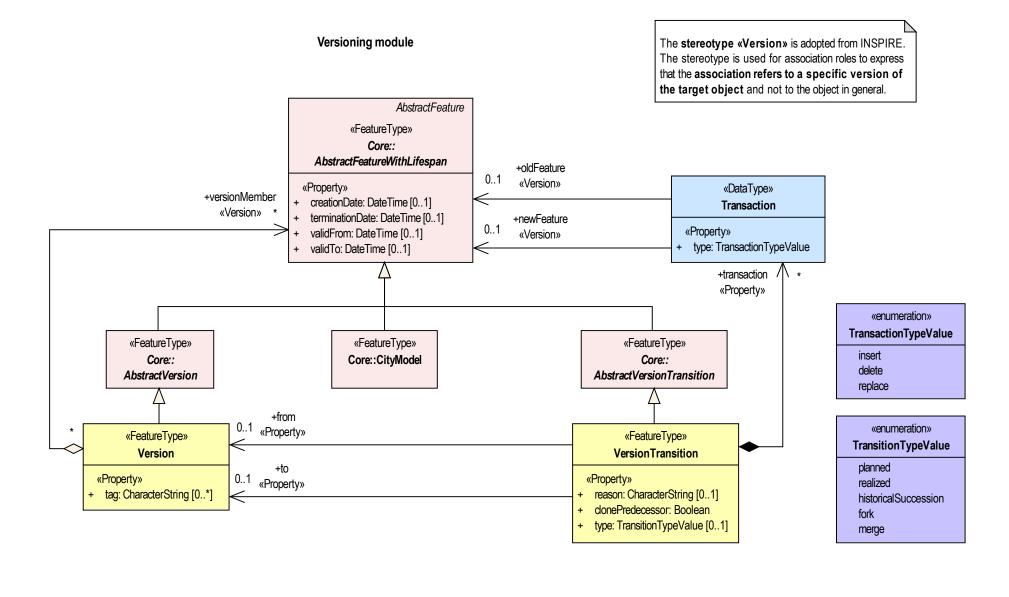
PlantCoverFunctionValue

«CodeList»

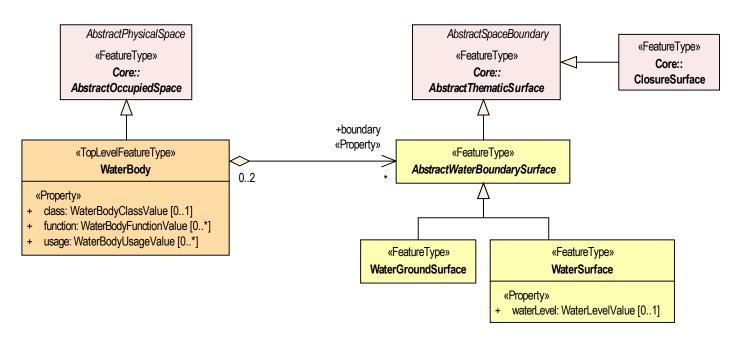
SolitaryVegetationObjectUsageValue

«CodeList»

PlantCoverUsageValue



WaterBody module



WaterBody module - Code lists

«CodeList»

WaterBodyClassValue

«CodeList»

WaterLevelValue

«CodeList»

WaterBodyFunctionValue

«CodeList»

WaterBodyUsageValue