

Freeform stair (flight only)

A stair flight is an assembly of building components in a single "run" of stair steps (not interrupted by a landing). The stair steps and any stringers are included in the stair flight. A winder is also regarded a part of a stair flight.

A freeform stair flight has a user defined walking line and outer boundaries.

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|------------------------------|---------------------------|----------------|
| IfcElementType | IfcStairFlight | =IfcExportAs |
| IfcPredefinedType | FREEFORM | =IfcExportType |
| Suggested Filename: | StairFlight_Freeform | |
| Suggested LOD (Design Model) | 300 | |
| Suggested Primary Discipline | Architectural; Structural | |

Source

Property Categories

Classification

BIM Forum

IFC 2x3

IFC4 Add2

NATSPEC BIM

NATSPEC Spec

Admin data

Code compliance data

Construction logistics data

Cost data

Facilities management data

Geometric data

Manufacturer data

Performance data

Scheduling data

Spatial and location data

Specification data

Sustainability data

Masterformat

NatspecWorksection

Omniclass Table 21 Elements

Omniclass Table 22 Work Results

03 41 23 : Precast Concrete Stairs

05 51 00 : Metal Stairs

05 71 00 : Decorative Metal Stairs

06 43 13 : Wood Stairs

03 30 00 : Cast-in-Place Concrete

0310 Concrete – combined

0321 Precast concrete

0341 Structural steelwork

0551 Joinery

0552 Metalwork – fabricated

21-02 10 80 : Stairs

22-03 30 00 : Cast-in-Place Concrete

22-03 41 23 : Precast Concrete Stairs

22-05 51 00 : Metal Stairs

22-05 71 00 : Decorative Metal Stairs

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|------------------------------------|---|
| | 22-06 43 13 : Wood Stairs |
| Omniclass Table 23 Products | 23-17 23 17 : Stairs |
| Uniclass Elements | EF_35_10 : Stairs |
| Uniclass Products | Pr_25_30_85 : Stair and ladder units |
| Uniclass Systems | Ss_35_10_85 : Structural stair and ramp systems |
| Unifomat | B1080 : Stairs |

| Property | Source | Description |
|-----------------------------|--|---|
| Admin data | | |
| CreatedBy | NATSPEC BIM | The name of the person, organisation or library provider that created the object. |
| CreatedByURL | NATSPEC BIM | URL hyperlink to the object creator's website. |
| ModifiedIssue | NATSPEC BIM | To record the last date of issue (version or revision) of the object within an object library. Add the date in the following format <yyyymmdd.no> where the 'no' suffix is equal to the number of times the object has been issued on that date. For example 20180316.01. |
| Reference | PSet_StairFlightCommon (IFC4) PSet_StairFlightCommon (IFC2x3) | Reference ID for a specified type in a project (e.g. type 'A-1'). Also known as Construction type. Provide as an alternative to the name of the object type, if software does not support object types. |
| Code compliance data | | |
| FireRating | NATSPEC BIM | Fire rating of object. Also known as the FRL (Fire Resistance Level) e.g. 60/60/60. |
| Fireproofed | BIM Forum | |
| Headroom | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | Actual headroom clearance according to the current design. |
| Construction logistics data | | |
| ConstructionMethod | NATSPEC BIM | |
| GrossWeight | NATSPEC BIM | |
| ShippingWeight | NATSPEC BIM | |
| | | Status of the object, predominately used in renovation or |

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| Status | PSet_StairFlightCommon (IFC4) | retrofitting projects. Complete value with: NEW, EXISTING, DEMOLISH, TEMPORARY, OTHER, NOTKNOWN or UNSET |
| StoragePlacementOnSite | NATSPEC BIM | |
| Cost data | | |
| AdditionalTax | NATSPEC BIM | |
| AssemblyCost | NATSPEC BIM | |
| AssetAccountingType | Pset_Asset (IFC4)Pset_Asset (IFC2x3) | Asset type for accounting purposes. Complete value with: FIXED, NONFIXED, OTHER, NOTKNOWN or UNSET (PEnum_AssetAccountingType) |
| AssetInsuranceType | Pset_Asset (IFC4)Pset_Asset (IFC2x3) | Type of insurance rating. Complete value with: PERSONAL, REAL, OTHER, NOTKNOWN or UNSET (PEnum_AssetInsuranceType) |
| AssetTaxType | Pset_Asset (IFC4)Pset_Asset (IFC2x3) | Type of taxation group. Complete value with: CAPITALISED, EXPENDED, OTHER, NOTKNOWN or UNSET (PEnum_AssetTaxType) |
| ConceptualCost | NATSPEC BIM | |
| CostOverRun | NATSPEC BIM | |
| FutureCostAssumptions | NATSPEC BIM | |
| InstallationCost | NATSPEC BIM | |
| InstalledCost | NATSPEC BIM | |
| PurchaseInformation | NATSPEC BIM | |
| RecordedActualCost | NATSPEC BIM | |
| ShippingCost | NATSPEC BIM | |

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| TotalOwnershipCost | NATSPEC BIM | |
| Facilities management data | | |
| AcquisitionDate | Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Date the item was purchased (Format: YYYY-MM-DD). |
| AssessmentCondition | NATSPEC BIM Pset_Condition (IFC4) | Overall condition rating based on assessment. Rating scale to be agreed prior (e.g. Good, OK , Poor). |
| AssessmentDate | Pset_Condition (IFC4) | Date of overall condition assessment (Format: YYYY-MM-DD). |
| AssessmentDescription | Pset_Condition (IFC4) | Qualitative description of the condition. |
| ComponentID | NATSPEC BIM | |
| Exclusions | Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Items, conditions or actions that may be excluded from the warranty or that may cause the warranty to become void. |
| ExpectedLife | NATSPEC BIM | Expected serviceable life of object. |
| IsExtendedWarranty | Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Complete value with: TRUE or FALSE (IfcBoolean) |
| ReplacementCost | NATSPEC BIM | Cost to replace product. |
| WarrantyContent | NATSPEC BIM Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Description of what is included in warranty. |
| WarrantyEndDate | NATSPEC BIM Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Format: YYYY-MM-DD. |
| WarrantyIdentifier | Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Identifier assigned to warranty. |
| WarrantyPeriod | Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | |
| WarrantyStartDate | NATSPEC BIM Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Format: YYYY-MM-DD. |

| Geometric data | | |
|------------------------|--|--|
| GrossVolume | NATSPEC BIM Qto_StairFlightBaseQuantities (IFC4) | |
| Height | NATSPEC BIM | |
| Length | NATSPEC BIM Qto_StairFlightBaseQuantities (IFC4) | |
| NetVolume | Qto_StairFlightBaseQuantities (IFC4) | Takes all openings or recesses into account. |
| NosingLength | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | Horizontal distance from front of tread to riser underneath. The overhang of the tread. |
| RiserHeight | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | Vertical distance from tread to tread. |
| Slope | NATSPEC BIM | Slope relative to the horizontal. |
| TreadLength | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | Horizontal distance from front of tread to front of next tread. |
| TreadLengthAtInnerSide | PSet_StairFlightCommon (IFC4) PSet_StairFlightCommon (IFC2x3) | Min length of treads at inner side of winder. |
| TreadLengthAtOffset | PSet_StairFlightCommon (IFC4) PSet_StairFlightCommon (IFC2x3) | Length of treads at a given offset. |
| WaistThickness | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | Min thickness of stair flight, measured perpendicular to slope of flight to inner corner of riser and tread. |
| WalkingLineOffset | PSet_StairFlightCommon (IFC4) PSet_StairFlightCommon (IFC2x3) | Offset of walking line from inner side of flight. |
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| Width | NATSPEC BIM | |
| Manufacturer data | | |
| Accessories | NATSPEC BIM | Details of available accessories. |
| ArticleNumber | Pset_ManufacturerTypeInformation (IFC4) Pset_ManufacturerTypeInformation (IFC2x3) | Reference applied to product, according to scheme for article number definition defined by manufacturer. Often used as purchasing number. |
| AssemblyPlace | NATSPEC BIM Pset_ManufacturerTypeInformation (IFC4) | Defines where assembly is to take place. Complete value with: SITE, FACTORY or NOTDEFINED (IfcAssemblyPlaceEnum) |
| Availability | NATSPEC BIM | |
| BarCode | Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Bar code given to occurrence of the product. |
| BatchReference | Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Identity of the batch from which the occurrence of the product is taken. |
| Defects | NATSPEC BIM | To record any defects found. |
| FabricationSequenceNumber | BIM Forum | |
| GlobalTradeItemNumber | Pset_ManufacturerTypeInformation (IFC4) | GTIN is an identifier for trade items developed by GS1 (www.gs1.org). |
| Manufacturer | NATSPEC BIM Pset_ManufacturerTypeInformation (IFC4) Pset_ManufacturerTypeInformation (IFC2x3) | Name of the manufacturer (or assembler). |
| ManufacturerURL | NATSPEC BIM | URL hyperlink to the manufacturer's website. |
| ModelLabel | Pset_ManufacturerTypeInformation (IFC4) | The descriptive model name of the product model (or product line) as assigned by the manufacturer of the manufactured item. |
| | Pset_ManufacturerTypeInformation | The model number and/or unit designator assigned by the |

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| ModelLabel | (IFC2x3) | manufacturer of the manufactured item. |
| ModelReference | Pset_ManufacturerTypeInformation (IFC4) | The model number or designator of the product model (or product line) as assigned by the manufacturer of the manufactured item. |
| ModelReference | Pset_ManufacturerTypeInformation (IFC2x3) | The name of the manufactured item as used by the manufacturer. |
| OrderNumber | NATSPEC BIM | |
| PointOfContact | Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Organization that should be contacted for action under the terms of the warranty. |
| ProductionYear | Pset_ManufacturerTypeInformation (IFC4) Pset_ManufacturerTypeInformation (IFC2x3) | |
| SerialNumber | Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Serial number assigned to an occurrence of a product. |
| Performance data | | |
| ConcreteCompressiveStrength28Day | BIM Forum | |
| Scheduling data | | |
| DeliverBy | NATSPEC BIM | |
| FabricationTime | NATSPEC BIM | |
| InstallationSequence | NATSPEC BIM | |
| InstallationTime | NATSPEC BIM | |
| LeadTime | NATSPEC BIM | |
| Spatial and location data | | |
| FloorID | NATSPEC BIM | |
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| GIS Tag | NATSPEC BIM | |
| GPSTag | NATSPEC BIM | |
| SpaceID | NATSPEC BIM | |
| Specification data | | |
| AESSCategory | BIM Forum | |
| ASTMMaterialGrade | BIM Forum | |
| BottomReinforcement | BIM Forum | |
| Coating | BIM Forum | |
| Finish | NATSPEC BIM | Specification of surface finish. |
| Material | NATSPEC BIM | |
| NumberOfRiser | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | |
| NumberOfTreads | PSet_StairFlightCommon (IFC4) NATSPEC SpecPSet_StairFlightCommon (IFC2x3) | |
| PrimaryBottomReinforcement | NATSPEC Spec | |
| PrimaryTopReinforcement | NATSPEC Spec | |
| SecondaryBottomReinforcement | NATSPEC Spec | |
| SecondaryTopReinforcement | NATSPEC Spec | |
| ShearReinforcement | BIM Forum | |
| SpecificationCode | NATSPEC BIM | |
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| SpecificationSystem | NATSPEC BIM | |
| SpecificationTitle | NATSPEC BIM | |
| TypicalWeldSpecifications | BIM Forum | |
| Sustainability data | | |
| ItemIsPartiallyRecycled | NATSPEC BIM | |
| ItemIsRecycled | NATSPEC BIM | |
| PostConsumerRecycledContent | NATSPEC BIM | |
| PostIndustrialRecycledContent | NATSPEC BIM | |
| PreConsumerRecycledContent | NATSPEC BIM | |
| RecycledContent | NATSPEC BIM | |