

# Freeform (flight only)

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A ramp flight is a single inclined segment and part of a ramp construction. In case of single flight ramps, the ramp flight and the ramp are identical.

A freeform ramp flight has a user defined ramp flight layout.

IfcElementType	IfcRampFlight	=IfcExportAs
IfcPredefinedType	USERDEFINED	=IfcExportType
Suggested Filename:	RampFlight_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

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NatspecWorksection

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Uniclass Elements

Uniclass Products

05 51 36 16 : Metal Ramps

06 11 00 : Wood Framing

03 30 00 : Cast-in-Place Concrete

0310 Concrete – combined

0341 Structural steelwork

0551 Joinery

0552 Metalwork – fabricated

21-02 10 10 50 : Ramps

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

22-05 51 36 16 : Metal Ramps

22-06 11 00 : Wood Framing

23-17 23 11 : Ramps

EF\_35\_20 : Ramps

Pr\_30\_59\_01 : Access ramps

	Pr_40_50_83_20 : Cycle ramps
Uniclass Systems	Ss_35_10 : Stair and ramp structure systems
Unifomat	B1010.50 : Ramps

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.
ElementType	IfcRampFlight (IFC4)	
ElementType	IfcRampFlight (IFC4)	Required for PredefinedType of USERDEFINED <b>Complete value with: FREEFORM</b>
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.
ObjectType	IfcRampFlight (IFC2x3)	
ObjectType	IfcRampFlight (IFC2x3)	Required for PredefinedType of USERDEFINED <b>Complete value with: FREEFORM</b>
Reference	PSet_RampCommon (IFC4) PSet_RampCommon (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		
FireExit	PSet_RampCommon (IFC4) PSet_RampCommon (IFC2x3)	<b>Complete value with: TRUE or FALSE (IfcBoolean)</b>
FireRating	NATSPEC BIM PSet_RampCommon (IFC4) PSet_RampCommon (IFC2x3)	Fire rating of object. Also known as the FRL (Fire Resistance Level) e.g. 60/60/60.
Fireproofed	BIM Forum	

HandicapAccessible	PSet_RampCommon (IFC4) PSet_RampCommon (IFC2x3)	<b>Complete value with:</b> TRUE or FALSE (IfcBoolean)
RequiredHeadroom	PSet_RampCommon (IFC4) NATSPEC SpecPSet_RampCommon (IFC2x3)	Required headroom clearance according to the applicable building code or additional requirements.
RequiredSlope	NATSPEC BIM PSet_RampCommon (IFC4) NATSPEC Spec PSet_RampCommon (IFC2x3)	Required maximum slope according to the applicable building code or additional requirements.
Construction logistics data		
ConstructionMethod	NATSPEC BIM	
GrossWeight	NATSPEC BIM	
ShippingWeight	NATSPEC BIM	
Status	PSet_RampCommon (IFC4)	Status of the object, predominately used in renovation or retrofitting projects. <b>Complete value with:</b> 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. <b>Complete value with:</b> FIXED, NONFIXED, OTHER, NOTKNOWN or UNSET (PEnum_AssetAccountingType)
AssetInsuranceType	Pset_Asset (IFC4) Pset_Asset (IFC2x3)	Type of insurance rating. <b>Complete value with:</b> PERSONAL, REAL, OTHER, NOTKNOWN or UNSET (PEnum_AssetInsuranceType)
		Type of taxation group.

AssetTaxType	Pset_Asset (IFC4)Pset_Asset (IFC2x3)	<b>Complete value with:</b> 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	
TotalOwnershipCost	NATSPEC BIM	
Facilities management data		
AcquisitionDate	Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3)	Date the item was purchased (Format: YYYY-MM-DD).
AssessmentCondition	NATSPEC BIMPset_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)	<b>Complete value with:</b> 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.
<b>Geometric data</b>		
GrossVolume	NATSPEC BIM	
Height	NATSPEC BIM	
Length	NATSPEC BIM	
Width	NATSPEC BIM	
<b>Manufacturer data</b>		
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	Defines where assembly is to take place. <b>Complete value with:</b> SITE, FACTORY or NOTDEFINED

	Pset_ManufacturerTypeInformation (IFC4)	(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.
ModelLabel	Pset_ManufacturerTypeInformation (IFC2x3)	The model number and/or unit designator assigned by the 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		
AcousticRating	NATSPEC BIM	Acoustic rating for the object. Indicates the sound transmission resistance of the object by an index ratio.
ConcreteCompressiveStrength28Day	BIM Forum	
ThermalTransmittance	PSet_RampCommon (IFC4)	Thermal transmittance coefficient (U-Value).
Scheduling data		
DeliverBy	NATSPEC BIM	
FabricationTime	NATSPEC BIM	
InstallationSequence	NATSPEC BIM	
InstallationTime	NATSPEC BIM	
LeadTime	NATSPEC BIM	
Spatial and location data		
FloorID	NATSPEC BIM	
GISTag	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.
HasNonSkidSurface	PSet_RampCommon (IFC4) PSet_RampCommon (IFC2x3)	<b>Complete value with:</b> TRUE or FALSE (IfcBoolean)
IsExternal	PSet_RampCommon (IFC4) PSet_RampCommon (IFC2x3)	<b>Complete value with:</b> TRUE or FALSE (IfcBoolean)
LoadBearing	PSet_RampCommon (IFC4)	Indicates if object is intended to carry loads. <b>Complete value with:</b> TRUE or FALSE (IfcBoolean)
Material	NATSPEC BIM	
PrimaryBottomReinforcement	NATSPEC Spec	
PrimaryTopReinforcement	NATSPEC Spec	
SecondaryBottomReinforcement	NATSPEC Spec	
SecondaryTopReinforcement	NATSPEC Spec	
ShearReinforcement	BIM Forum	
SpecificationCode	NATSPEC BIM	
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	