

Stairbuilders and Manufacturers Association Glossary of Stair Terminology



A

Angled Stairway – A *stairway* of successive *flights* that are at an angle other than 180° to each other with a *landing* between them

Apron – A trim board or *moulding* attached to a vertical surface used to support the projected edge of a window stool or *landing nosing* (See also *Fascia*)

B

Balanced Steps (Dancing Steps) – *Winders* that do not radiate from a common center but are distributed uniformly through equal segments of the *walk line*

Balcony – An elevated level area of floor or *landing* with a *balustrade* visible from below

Balusters – A vertical member used as *in-fill* to limit the size of openings within a *balustrade* and/or provide support to the top of a *balustrade* or *guard* system by transferring a portion of the load applied to the *balustrade* to the structure of a *stair* or floor system

Baluster, Pin Top – A *baluster* with a round top that is fitted into holes drilled in the bottom of the *rail*

Baluster, Square Top – A *baluster* with a square top end

Balusters, Raked – Two or more *balusters* on a *step* with details in profile that are oriented to follow the *rake* or inclination of the *stair*

Balusters, Stepped – Two or more *balusters* on a *step* with details in profile that are oriented parallel in height to the horizontal surface of the *tread*

Balusters, Twist (Twist, Newel) – 1. A square metal baluster (*newel*) that is twisted to give the appearance of a spiral along its axis of length 2. A *baluster (newel)* with a convex bead that twists in a spiral along its axis of length to appear as a rope 3. A *baluster (newel)* with a concave *flute* that twists in a spiral along its axis of length

Balustrade – A system of *rails, newels, balusters, panels*, screen or other ornamental components used to separate two areas. *Balustrades* used to minimize falls from elevated walking surfaces and the sides of *stairs* are also *guards*.

Banister – 1. A simple *post-to-post balustrade* typically with small diameter, square or rectangular section *balusters* used to provide a handrail and minimize falls from the side of *stairs* 2. A corruption of the terms *baluster/balustrade*

Block – The solid piece of wood or face laminated pieces/blocks of wood from which sections of curved *rail* or other *curved stair* or *balustrade* components are cut or shaped.

Blocking – Wood blocks or other elements attached to the building structure to provide for the transfer of loads and/or the secure fastening of objects at points between structural elements such as studs or joists where voids in the structure do not permit direct fastening to the structure.

Bracket – 1. A triangular structural support element used to transfer loads from one element to another by changing the direction of the applied load, 2. A support used to attach a *handrail* to a wall, 3. An element connecting the *tread* and *riser* usually applied to the *face stringer* as a decoration, 4. An element attached to a *stringer* to support a *tread*.

Bullnose – 1. A descriptive term for a radius moulded profile applied to the edge of a *tread, moulding*, or board. 2. A type of *starting step* with half circular end(s) in plan projecting beyond the width of the stairs above. 3. A *moulding* with a rounded edge such as a *landing tread* or *landing nosing*.

Buttress (Curb) – A closed *stringer* system on the open side of a *stair* built up in thickness, sometimes with a core wall or blocking, with a finished opposing exposed side, and a *cap* to receive the *balusters*

C

Cable (Wire Rope) – A rope of wire or fiber used in *cable railing* systems usually made of stainless steel or galvanized material.

Cable Railing – A *guard or balustrade* with *cab*le in-fill

Cap – 1. A moulded object or board used to finish the top of an object such as a wall, or *closed stringer*, 2. That part of a *rail fitting* that is attached to the top end of a *newel or newel cap*, 3. The applied top of a *box newel*, 4. A *false end tread*

Cap, Newel – See *Cap*, also see *Opening, Quarter Turn, Tandem* below

Cap, Opening – 1. A horizontal *rail fitting* at the start of a level *balustrade* system at the top of a *newel* (See *cap*), 2. A horizontal *rail fitting* used as a component of a *starting easement* at the top of a *starting newel*

Cap, Quarter Turn – A horizontal *rail fitting* used to connect two *rails* at an angle of 90-degrees at the top of a *newel*

Cap, Tandem – A horizontal *rail fitting* used to connect two *rails* at an angle of 180-degrees at the top of a *newel*

Carriage – A system of *rough stringers* attached to the building structure providing for the support and or attachment of the *treads, risers* and *face stringers* of a *stair* and often the ceiling or *soffit* below

Channel Glazing – a method of glazing which uses a 'U' shaped aluminum channel with metal or rubber gaskets to hold the glass in place

Closed – typically referring to condition of enclosure such as walls at the side of a *stair* or that portion of the side of a *step* that is enclosed by a *stringer* extending above the *treads*

Cove – A supporting *moulding profile* with a concave quarter round radius or arc on the *face*, see also *Scotia*

Curb – 1. A closed *stringer* system on the open side of a *stair* built up in thickness, sometimes with a core wall or blocking, with a finished opposing exposed side, and a *cap* to receive the *balusters*, see also *buttress*, 2. a *shoe rail* mounted directly on the floor or *blocking* attached to the floor with a *cap* to provide for the termination of the *balusters* above the adjoining walking surface.

Curtail Step – See *Volute step*

D

E

Easing – 1. An arc that is tangent to two straight intersecting lines providing a smooth rounding instead of an angular intersection, 2. An *easement* in a rail or *stringer*, i.e. *up easing*, *over easing*, 3. Sanding or shaping a radius on the corner of a board to yield an “eased edge”.

Easement – A *rail fitting* that provides a vertically curved *easing* between two intersecting *rails* or a *rail* and *cap* as in a *starting easement*

F

False End Tread or Riser (False End Caps) – Decorative elements resembling the end of a *tread* or *riser* applied to the surface at the end of a structural *sub-tread* or *riser* with the remaining exposed *sub-tread/riser* to have a floor covering applied such as carpet

Face – 1. The side of a board to be exposed or visible in the finished product 2. Describes an element that is visible i.e. *face string*

Face Mould – a template used in *handrailing* to describe the curved sides and ends of a wreath on the block to be carved

Fascia – A trim board applied to a vertical surface, often with a *moulding* applied above and/or below

Ferrule – A sleeve or ring that is compressed or *swaged* onto cable

Fillet – A thin strip or moulding that fills the exposed *plow* or groove between *balusters* in a *rail*, *bottom rail*, *shoe rail*, *sub-rail* or *cap*

Finial – An ornamental element used at the top end of a *newel post*

Fitting, Rail – A component or combination of components that are profiled to match *rail* patterns and used to connect *rails* in a continuous fashion at horizontal changes in direction, vertical transitions, or for ornamentation

Fitting, Quarter Turn – A *rail fitting* that turns 90 degrees. See also Level Quarter Turn and *Cap, Quarter Turn*

Flier (Flyer) – A rectangular *tread*

Flight – An uninterrupted series of *fliers* or *winders* or any combination thereof from one *landing* to the next

Floor to Floor Height – see *Total Rise*

Fluting – A series of parallel round bottom grooves used as decorative details in vertical surfaces of such elements as *balusters* or *newels*

G

Gait Line – A line that follows the angle of the *stair* connecting the *nosings* of the *treads* also called *nosing line*

Gasket – a seal that fills the space between 2 or more adjoining surfaces, generally to prevent leakage from or into joined objects

Glass, Annealed – a process designed to eliminate or limit the internal stresses of the cooling of glass. Under normal conditions, the surface of glass will cool more rapidly than the center causing internal stresses which may cause the glass sheet to crack, shatter, or even explode. By submitting the glass to controlled cooling in a special oven known as a “lehr”, the glass is allowed to cool to a temperature known as the “annealing point”. When the glass reaches this point, the temperature is stabilized for a specific length of time, to allow stresses in the glass to relax

Glass, Decorative – glass that is frosted, colored, textured, or stained.

Glass, Float – a process for the production of high-quality sheet glass whereby a ribbon of molten glass is fed across a bath of heated liquid, usually molten tin, in a carefully controlled atmosphere. This method gives the sheet uniform thickness and very flat surfaces.

Glass, Laminated (Compound) – Consists of 2 or more sheets of glass with one or more viscous plastic layers between the glass panes. When this glass breaks, the pieces remain attached to the internal plastic layer and the glass remains transparent.

Glass, Low Iron – The amount of iron is reduced to make the glass more transparent with edges that are clear or light blue.

Glass, Tempered (Toughened) – A type of glass processed by controlled thermal or chemical treatments to increase its strength compared to normal glass. Tempering puts the outer surface into compression and the interior into tension. This treatment causes the glass, when broken, to crumble into small granular chunks instead of splintering into jagged shards.

Glass Clamps- used to connect glass panels to a post, structure or inline to another panel

Glass Edge Treatments

Bevel: Glass that has its edges cut to a specific angle and size in order to

produce a specific elegant look. A bevel edge can range in size depending on the angle of the bevel and thickness of the glass

Polish: Glass that's edges are ground smooth, finished with a shiny or gloss polish resulting in a sleek appearance

Profiled: A glass edge having a more complex radius or multi angled shaped. This edging is more decorative than a simple beveled edge, e.g. ogee profile

Glass Panel (Pane or Sheet) – A flat or curved piece of glass

Glazing Compound – Used in wet glazing/anchoring methods of bedding, and setting the edges of glass *panels* in a frame and often to provide a seal between the exterior and interior sides

Glue blocks – Blocks of wood attached to the underside of a *stair* at the joints between the *risers*, *treads*, and *stringers* to strengthen the joint and minimize movement that causes squeaks

Going – The horizontal distance between two successive *nosings*, See *run*, *tread depth*

Gooseneck – A combination of *easing(s)*, *rail* segments and/or *caps* that provide for the continuous transition of a *rake rail* to a level *rail* at the top of a *flight* or from *rake rail* through a level turn to a *rake rail* at a turn in the *stairway*

Guard – A component or system of components such as *rails*, *newels*, *balusters*, *panels* or other ornamentals used to minimize falls from elevated walking surfaces and the sides of *stairs*

H

Hand – 1. The direction a *stair* or *handrail* turns in ascent, left or right. 2. The side of the *stair* as viewed in ascent, left or right 3. The identification of a component for its intended use as referenced by the side of the *stair* in ascent, e.g. right hand *returned tread* to be used on a *right hand open stair*

Handrail – A sloped or horizontal *rail* intended for grasping by the hand as an assist for; guidance, support, pulling, or arresting a fall

Handrailing – The craft of designing and constructing wreathed handrails for geometrical stairs

Hanger Bolt – A bolt that has coarse lag thread on one end instead of a head with finer machine thread on the opposite end to accept a nut

Header – 1. A floor-framing member at the edge of a floor opening that “heads off” the floor joists running up to a *well opening* 2. The joist(s) at the edge of a floor opening 3. The joists at the edge of a *landing* supporting the end of a *flight*

Headroom – 1. The clear vertical space allowed for the user of a *stairway* to prevent striking their head, 2. The vertical distance from the plane of the *nosings* of a *flight*, extended to the floor beyond the first *riser*, to any obstruction above the walking surface of the *stair* generally a minimum of 80 inches throughout the *stairway* including the *landings*.

Horse – 1. The triangular point or “sawtooth” portion of a *cut string* or *carriage* to which the *tread* and *riser* are attached 2. A *rough string*.

I

Infill – A term used in the ICC structural requirements to describe that portion of a *guard* system below the top *rail*.

Intermediate Supports – Smaller stanchions located between main structural posts typically terminating under the top *rail* to prevent deflection of horizontal *infill* members common in *cable* or rod *infill* systems

J

Jack - see *horse*

K

Kerfing – A wood bending technique using a series of uniform, shallow cross cuts on the back of a board that do not penetrate the *face* allowing the back surface to compress to a smaller radius increasing the flexibility without reducing the thickness

Kite – A *winder* in a 90-degree corner that is shaped like a kite in plan

Knee Wall – 1. a *spandrel* wall that extends above the gait line to form the core of a buttress or *curb* at the *open* side of a *stair*, 2. The *spandrel* wall supporting an *open string*

Knuckle – Decorative metal element(s) into which a metal *baluster* is inserted or band(s) that encircles the *baluster* used as an ornament in the middle portion of a *baluster*

L

Lamb's Tongue – An ornamental cyma curved rail termination often with carved details

Landing – 1. The walking surface at the top and bottom of a *flight* at a floor level to provide clear approach to the *stair* or to the floor level from the *stair*, 2. An intermediate level *platform* between *flights* used to change direction of the *stair* and/or provide a resting place typically with dimensions approximating the width of the *flights* served

Landing, Half Space – An intermediate *landing* at a stairway turn of 180 degrees

Landing, Quarter Space – An intermediate *landing* at stairway turn of 90 degrees

Landing Nosing – A *moulding* used to finish the floor or landing edge at a level *balustrade*

Landing Tread – 1. The top *tread* in a *flight* supported by the top *riser* that is attached in alignment with the floor-surface with the same *nosing projection* as the *treads* in the *flight* below, 2. The *moulding* used as *landing tread* and *landing nosing*

Landing Tread, Bending – Thin, flexible, longitudinal-sections of a *landing tread* profile that are moulded individually such that bending and laminating the sections together will provide a curved *landing tread* of the composite profile

Level Quarter Turn – A *rail fitting* that turns 90 degrees in the level or horizontal plane

M

Moulding* - Typically a strip of wood, plastic, plaster or composite materials having a profile in section used to cover transitions between surfaces or for decoration

*Spelled differently from: *mold* – a multicellular fungus.

Moulding Profile (Rail Profile) – The shape as described by a section perpendicular to the length of the *moulding*

N

Newel (Newel Post) – 1. A vertical element or *post* used to connect *balustrade* components to the structure of a *stair* or floor system, 2. A vertical *post* to which *carriages*, *stringers* and *balustrades* can be attached at junctions and angular turns in the *stairway* to provide the main support for the *stairs* and *balustrades*

Newel, Box – A *newel*, usually square in section, often made as a “box” with a hollow center, from boards joined at the corners

Newel, Half – A *newel* cut in half longitudinally used against a wall to provide for the termination of a *balustrade*

Newel, Intermediate Landing – A *newel* located at a *landing* or *platform* between *flights* in a *stairway* or at a turn of *winders*

Newel, Landing – A *newel* located at a *landing* or *balcony*

Newel, Pin Top – An *Over-the-Post newel* that has a dowel pin turned on the top to fit into a hole in the bottom of a *newel cap*

Newel, Rake – A *newel* tapered at the top to attach to the bottom of a *rail* for additional support in the middle of a longer *rake rail*

Newel, Starting – The first *newel* used at the bottom or beginning of a *stairway*

Newel, Twist – see *baluster*, *twist*

Newel Bolt – A long, large, diameter *hanger bolt* used to top mount a *newel* to the floor system

Newel Drop – An ornamental element used at the bottom end of a *newel*

Newel Plate – A metal plate, drilled to accept fasteners near the center for attachment to the bottom of a *newel*, and also drilled at the perimeter for top mounting a *newel* to the floor, typically the exposed fasteners are concealed by carpet or wood moulding

Nosing – 1. The leading edge of a *tread* 2. The *moulding profile* on the leading edge of the *tread*

Nosing, Return – A moulding matching the *nosing moulding profile* and projection of the *tread nosing* that is mitered to the *tread nosing* used to eliminate exposed end grain at the end of the tread resulting in a *nosing projection* at the end of the tread with identical detail to the projection of the *tread nosing* past the *riser face*

Nosing Line – see *gait line*

Nosing Projection or Overhang – The horizontal distance measured from the leading edge of the *tread* to the trailing edge of the *tread* below

O

Open – 1. Refers to the absence of an element

Open Riser Stair – A *stair* without *risers* such that the space between the *treads* is open

Over Easing – Typically used to describe an *easing* in a rail with the center of its arc below the top of the rail

Over-the-Post – A *balustrade* system that uses *fittings* to provide a continuous *handrail* over the top of the newel *posts*

P

Picket – 1. The vertical element in a fence. 2. see also *Balusters*

Pitch (see also Rake) – The slope or angle of a *stair* in reference to the horizontal plane

Pitch Block – A block of wood cut to a right triangle with the *rise* and *run* dimensions of a stair and used as an angle gauge in *stairbuilding* and *handrailing*

Plate – The bottom, flat part of a rail assembly attached directly to the floor or top of a *knee wall*, *buttress* or *curb* typically into which the *balusters* or other *infill* terminates, See also *Cap*, *Shoe Rail*

Platform – 1. An intermediate *landing* in a *stairway*, 2. The extension of the floor *landing*, which is often used as the top, *tread* of a *spiral stairway*

Plinth – The base of a baluster or newel

Plow (Plough) – A groove with flat bottom in the length of a board or moulding

Plowed rail – A *rail*, which has had the bottom, grooved or *plowed* to accommodate insertion of a square *baluster* and *fillet*

Plug, Button – A wood plug used to conceal a counter bored threaded fastener with a truncated dome of end grain that projects above the surrounding surface

Plug, Flush – A wood plug used to conceal a counter bored threaded fastener face grain on the exposed end that is aligned to be inconspicuous in the surrounding surface and sanded flush

Plumb – Vertical, perpendicular to level

Post – see *newel*

Post-to-Post – A *balustrade* system with *rails* that are interrupted by intersections with the side of the *newels*

Q

R

Rail – a horizontal component of a *balustrade* (also referred to as railing in a *balustrade*), door, or panel that serves to connect vertical elements

Rail, Bending – Thin, flexible, longitudinal-sections of a *rail profile* that are moulded individually such that bending and laminating the sections together will provide a curved rail of the composite profile

Rail, Blocked – A curved *rail* that is cut and shaped from *blocks* or segments that are joined end to end

Rail, Bottom – see *shoe rail*

Rail, Level – A horizontal *balustrade* attached to a floor or *landing*

Rail, Rake – A *rail* at an angle or *pitch*; typically a *rail* on a *stair* or ramp.

Rail, Shoe – 1. A plowed *rail* that is used to receive the square bottom end of balusters when they are not connected directly to the treads (see also *bottom rail*) 2. A cap on the top of a *closed stringer*, *buttress* or *curb* that is plowed to receive the bottom square end of balusters

Rail, Sub- – The lower portion of a *rail* member that is an aggregate of more than one horizontal element, often ploughed on the bottom to receive *square top balusters* and *fillet*

Rail, Toe – see *shoe rail*

Rail Bolt – A *hanger bolt* used to join *rails* ends to *fittings*, *newels* or walls

Rail Fitting – See Fitting, Rail

Rail Profile (Moulding Profile) – The shape as described by a section perpendicular to the length of a *rail* or *moulding*

Rail System – see *Balustrade*

Rake – 1. Used to describe the particular angle of an object i.e the slope or pitch of a *stair* 2. Used to describe an object as being inclined i.e. rake rail

Reeding – A series of parallel beads used as decorative detail in vertical surfaces of such elements as *balusters* or *newels*

Returned End – 1. The end of a moulding profile that has been mitered to extend the profile across the end and conceal the end grain, 2. The end of a handrail that is returned to a wall, post or floor to eliminate an open end that might catch the clothing of users or the objects they carry, 3. A handrail fitting with the *moulding profile* shaped on the end grain and used as a termination on the open end of a rail

Return Nosing – see *Nosing, Return*

Rise (Unit Rise) – The vertical distance between the leading edges of adjacent *treads*. Referred to in building codes as *riser* height

Rise, Total – The vertical distance of a *stairway* from finish-floor to finish-floor

Riser – The vertical component of a *step* in the space between the *treads*

Riser, Bowed – A *riser* that is curved in plan

Riser, Mitered – A riser crosscut on the end at an angle to the face to join the complimentary vertical riser cut of a *mitered cut string*

Riser, Starting – See *Starting Step*

Rosette – A decorative and anchoring wall plate used at the termination of a *rail* into a wall

Run (Unit Run) – the horizontal distance between two adjacent *tread nosings* on a *stair*. See *going*

Run, Total – The total horizontal distance of a *flight of stairs*

S

Scotia – A *cove moulding* that is taller than wide with elliptical concavity attached to the underside of the projected *tread nosing*

Scroll – The terminal end of a volute

Scroll Step – A type of starting step, see *Volute step*

Setting Blocks – cushions used between the edges of glass panes or panel and the frames to allow for expansion and prevent the glass from cracking

Shoe, Base and Rake – *Base Shoe* is a decorative element used to conceal the termination of the baluster at level/horizontal surfaces, *Rake Shoe* is a decorative element used to conceal the termination of the baluster at raked/sloped surfaces

Shoe Moulding – 1. A *moulding*, used at the joint between base and floor and where the *starting riser* meets the floor, 2. A base made of wood or aluminum, sometimes recessed in the floor, used to secure the bottom of a glass panel

Skirt Board – A non-structural *fascia* used to trim the sides of stairs to which the treads and *risers* are fitted

Soffit – The visible ceiling attached to the bottom of a *stair* between the opposite stringers and/or opposing wall(s)

Spandrel – Describes the triangular area under the *open* side of a *stair*, e.g. spandrel wall, spandrel panel

Sphere Rule – refers to the building code that limits openings in *guards* to the size of a certain sphere that shall not pass through the *guard*

Spindles – 1. Symmetrical turnings often used in chair backs and spreaders between chair legs. 2. see also *Balusters*

Stair – 1 A *step* or change in elevation of one *riser* height. 2. A change of elevation consisting of one or more *risers*. (International Code Council)**

Stairs – A series of *steps*. 2. A change of elevation consisting of one or more *risers*. (International Code Council)**

**The International Code Council, ICC® requires both singular and plural forms to have the same meaning

Stair, Box – 1. Stairs with *closed stringers* on each side that “box in” the treads and risers, 2. A prefabricated straight *flight* of *stairs* with *closed stringers*.

Stair, Circular – A curved *stairway* that is circular in plan

Stair, Curved – A *stair* with some portion having an arc in plan that is a radius, a combination of radii or an ellipse

Stair, Dextral - A *stair* that turns to the right during ascent

Stair, Dogleg - A stair with two flights separated by a *half landing*, and having no *stairwell*, (in elevation the angles of the flights form a dogleg shape)

Stair, Freestanding (Floating) – A *stair* that is unsupported by walls and attached only to the floor systems at the top and bottom of the *stairway*

Stair, Geometrical – A *stair* of complex geometry in which the *strings* and *rails* are continuous from start to end with curved and straight segments of the *stairway* connected by *wreaths*, typically without *newels*, except the *starting newel*

Stair, Helical – A stair that ascends with identical *winders* within the space that can be defined between two cylinders of concentric circular plans (see also Spiral Stair)

Stair, Open – 1. a *stair* that is open on one or both sides that has no wall separating the stair from the adjoining space

Stair, Open Well – a *stair* having a *stairwell*

Stair, Partial Open - A *stair* that has an open side that becomes closed by a wall part way up the *flight*

Stair, Scissor – Two interlocking stairways providing two separate paths of egress located within one stairwell enclosure

Stair, Sinistral – A *stair* that turns to the left in ascent

Stair, Slant Riser (Z Stair*) – A stair in which the risers are slanted under the tread above to minimize catching the toe of footwear at the nosing projection and/or provide for application of a runner in one continuous integral section

**The slanted/sloped riser and horizontal tread results in a 'Z' profile.*

Stair, Spiral* – A *stairway* having a closed circular form in plan with uniform *winders* radiating from a minimum-diameter circle with or without a center supporting newel or column** (see also Helical Stair)

*A geometric spiral diminishes to a point. The term is used here to describe the common visual perspective of the stairway not the geometric form.

** Spiral Stairs have different definitions in the International Building Code, IBC® and the International Residential Code, IRC®. The IBC® requires a minimum diameter supporting column to which the treads are attached.

Stair Gradient – The ratio between the *rise* and *run* of a *stair* used to relate the steepness in use, typically considered to be between 20 and 42-degrees when expressed as angle. Differing from ladders, which are steeper, and ramps, which are less steep

Staircase – That part of the building set apart for the stairs and balustrade generally including the well opening and adjacent walls

Stairway – One or more *flights* of *stairs*, with the necessary *landings* and *platforms* connecting them, to form a continuous and uninterrupted passage from one level to another. (International Code Council, ICC®)

Stairway, ‘L’- Shaped – A *stairway* with two *flights* joined by a *quarter space landing* that is shaped in plan like the letter ‘L’

Stairway, ‘U’ - Shaped – A *stairway* with two *flights* joined by a *half space landing* that is shaped in plan like the letter ‘U’

Stairwell – The inner clear opening formed by; turning *flights* within a *well opening* or between a flight and the edge of the *well opening*

Standoffs – hardware that connects *glass panels* to the structure at an offset distance from the structure

Starting Easing – A *rail fitting* comprised of an up easing and *opening cap* used at the bottom of a *stairway* attached to a *starting newel*

Starting Fitting – A *rail fitting* comprised of an *up easing* or *wreath* with a *cap*, *turnout*, or *volute/scroll* used at the bottom or beginning of a *stair* attached to a *starting newel*

Starting Step – 1. A *tread* with curved end that is used at the start of the *stairway* at the bottom, 2. The first *tread* and *riser* at the bottom of the *stair*

Starting Step, Bullnose – A *tread* with half round end(s) in plan projecting beyond the *face string* of the *stair*

Starting Step, Quarter Turn – A *starting step* that has quarter circle rounded end(s) at the leading edge

Step – 1. A change in elevation of one riser height to a floor or landing without a tread, 2. A unit segment of a *stair*, consisting of a *riser* and the *tread above*

Stringer (String) – The supporting inclined elements to which the *treads* are attached that serve to transfer both live and dead loads of the *stair* to the building

structure. See also stringers listed by types; *closed, curb, cut, open, face, housed, mitered cut string, mortised, open, rough, routed*

Stringer, Closed – A *stringer* that encloses the ends of the treads and *risers* typically with the top edge following the angle of the *stair* above the line of the *nosings*

Stringer, Cut – A *stringer* cut or notched on the upper edge to provide for support and attachment of the *treads*

Stringer, Face – The exposed *stringer* on the open side of *stairs*. Called a *skirt board* or *fascia* when not supporting the *treads* and *risers*

Stringer, Housed – A closed *stringer* that “houses” the ends of the *treads* and *risers* projecting into routed recesses in the *stringer*

Stringer, Mitered Cut – A cut *stringer* with the riser cuts mitered to join a riser with a complimentary miter on the end to be joined

Stringer, Mortised – see *housed stringer*

Stringer, Open – A *face stringer* that is cut or notched on the upper edge to provide for support and attachment of the *treads* such that the profile of the *steps* can be seen from the side

Stringer, Rough – A *cut stringer* to which the treads and *risers* are attached that is concealed and attached to the structure

Stringer, Routed – See *housed stringer*

Stringer, Wall – A *stringer* that is applied to the wall on the closed side of a *stair*

Stringer Margin (Stringer Reveal) – 1. The distance from the *gait line* to the top edge of a *closed stringer* 2. The width from the bottom of a *cut string* to the depth of the cut notch

Stairbuilder – A person with skills specific to the craft of designing and constructing *stairways* and *balustrades*

Swage – 1. To compress or crimp a *ferrule* to cable 2. A tool used for *swaging*

Swaging Stud – A stud with attached *ferrule* to swag on the end of a cable. The end may be threaded to attach to a *terminal* or *turnbuckle*.

Swaging Tool – A tool used for *swaging* (compressing) a *ferrule on to cable*.

Suction Cups – A tool with vacuum actuated cups with heavy duty handles that allows for convenient grasp, maneuver, and release of heavy glass panels

Sub-Tread – A concealed rough tread used to support the visible finish tread

T

Tangent – A line that touches a curve at a single point

Tangent Point – 1. The point on a curve at which a tangent line touches 2. The point on the curve of an easement at which perpendicular cut to the tangent line at the rake angle that will provide a matching cross section to a square cut on the intersecting rake moulding of the same profile and a smooth transition or *easing* at the intersection

Tangent System of Handrailing – A plane geometry method of determining the *face moulds* for the construction of *wreathed handrails* utilizing *tangents* to develop the intersection of the planes that include all the points along the centerline of the *handrail*.

Terminal – 1. Hardware used at the ends of *cable*, sometimes also incorporating a tensioning device, 2. A *fitting* used to terminate a *rail*

Tread – The horizontal walking surface of a *stair*

Tread, Bowed – A *tread* that is curved in plan at the *nosing* edge

Tread, Hybrid – A tread made with finish quality material finger joined on the end(s) where exposed and a lower grade material where it will be concealed, by floor covering

Tread, Engineered – A *tread* that is composed of a core material with balanced veneers applied to both faces to stabilize the product from warp and cup

Tread, Mitered Returned – A *tread* used on *open stringer stairs* with the *nosing* “*returned*” to project over the *cut face string* at the end of the *tread* by mitering a matching *return nosing* to the end of the *tread*

Tread Depth – The term used in building codes for *run* or *going*

Turnbuckle – Hardware used to, couple or tension *cable*; utilizing sleeves, swivels, and/or internal screws

Turnout – A starting *rail fitting* or *starting step* that turns 90 degrees to the *starting newel* offset beyond the width of the stair above

U

Up Easing – Used to describe an *easing* in a rail with the center of its arc above the top of the rail

V

Volute – A starting *rail fitting* that is designed as a spiral in plan by connecting a series of 90-degree arcs diminishing in radius by a constant value or proportion. Typically a volute consists of some portion that is flat in the horizontal plane, called a *scroll*, connected to a *wreath or easing* portion that makes the transition to the connection with the rake rail.

Volute, Vertical – A starting *rail fitting* that is designed as a spiral in elevation by connecting a series of 90-degree arcs diminishing in radius by a constant value or proportion.

Volute, Lateral – a metal railing termination that is a horizontal scroll, see *volute*

Volute Step (Scroll Step) – A type of *bullnose starting step* with a *nosing* designed concentric to the plan of the *volute or scroll* through at least 180-degrees. Since the spiral of the nosing must be “curtailed” to maintain the integrity of the step these are sometimes called Curtail Steps.

W

Walk line – 1. The most common path of travel used in the design of *winders* determined by the distance from the *handrail* to the closest foot when the *handrail* is used in travel on a *stairway*, 2. A point at which *winders* are regulated for depth by building codes, measured 12 inches from the side of the *stair* where the *treads* are narrower, on that portion within the usable width, at the surface of the tread

Wall Rail – A *handrail* mounted to a wall.

Wash – The slight horizontal sloping of *treads* such that the leading edge is lowest to allow water to run off and to minimize wear at the *nosing* edge

Wedge – 1. A piece of wood tapering in thickness from end to end used to secure treads and risers into *housed or routed stringers*, 2. Rubber inserts that are adjusted to position, align and securely install glass panels

Well hole or Well Opening – The opening in a floor through which a *stairway* ascends

Winder – A *tread* with nonparallel edges.

Winding stair – A *stair* that turns with *winders*

Wreath – 1. A *handrail* that has a curve in plan and elevation referred to as double curvature or a compound curve, 2. A *handrail* or *string* transition that “twists” between a *rake* and level or two *rakes* at a curve in the plan of the *stair(s)* or *handrail*, 3. To twist

X

Y

Z

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