TERM	DEFINITION
2D polyline	A polyline with all vertices at the same elevation.
3D face	A 3D face is an AutoCAD object that represents the surface of a 3- or 4-sided area, with each vertex potentially at a different elevation. You can view TINs (Triangulated Irregular Networks) as 3D faces. Using the SHADE command, you can shade 3D faces. Using the RENDER command, you can render the 3D faces. See also TIN.
3D polyline	A polyline with vertices at varying elevations.
A	Grade Change.
A.A.S.H.T.O.	American Association of State, Highway, and Transportation Officials.
acre	A measure of land: 160 square rods; 4,840 square yards; 43,560 square feet.
adjustment	A process that removes inconsistencies from the mathematical model of measured observations such as angles and distances.
alignment	A series of 2D coordinates (northings and eastings), connected by lines, curves, or spirals, used to represent features such as the road centerlines, edges of pavement, sidewalks, or rights-of-way.
angle	The difference in direction between two convergent lines measured in the units of degrees, radians, or grads.
applied cant	The total amount (in mm or in.) by which rails are raised or lowered in a curve.
appurtenance	An appurtenance is a component, such as a valve, that supplements a water transmission and distribution system. In many cases, appurtenances throttle or control flow.
area	The quantity of plane space in a horizontal plane enclosed by the boundary of any polygonal figure.
AREMA	American Railway Engineering and Maintenance-of-way Association.
assembly	An AutoCAD Civil 3D drawing object (AECCAssembly) that manages a collection of subassembly components, such as travel lanes, curbs, shoulders, and ditches, to form the structural elements of a roadway or other corridor-type structure.
assembly set	The set of assemblies that are specified (referenced) by an assembly set file, used during intersection object creation (intersection design).
astronomic azimuth	An azimuth derived from sunshots or starshots.
azimuth	A clockwise angle measured from a reference meridian. Also known as north azimuth. It can range from 0 to 360 degrees. A negative azimuth is converted to a clockwise value.
backsight	A previously established point used as a direction reference to another point. A survey instrument movements typically are locked to an angle of 0 degrees, and the vertical crosshair is set on the backsight. All subsequent shots are then taken by turning the instrument and the upper movement together, while the lower movement stays set on the backsight. All angles measured are, therefore, relative to the backsight.
balance line	The line in a mass haul diagram at which cut and fill balance. See also mass haul line.
balance point	The point at which the mass haul line crosses the balance line (the station at which the cut volume and fill volume are equal). See also balance line, mass haul line.
baseline	See footprint.
base surface	An existing ground or undeveloped terrain. Specified when creating volume surfaces. See also comparison surface.
BC:L	Curve Beginning.
bearing	An angle measured from North or South, whichever is nearest, with the added designation of East or West. The angle is always less than 90 degrees (PI/2 radians or 100 grads) and is referenced by a quadrant number.
BFC	Begin Full Cant.
BFS	Begin Full Super.
BLR	Begin Level Rail.
BNC	Begin Normal Crown.
BNS	Begin Normal Shoulder.
BOA	Begin of Alignment.
border	The visible limits of a surface. The border can be defined from a boundary or can be the result of a defined boundary and operations performed on a surface, such as a Delete Line operation (a hole is created in the surface). If a boundary is not defined on a surface, the exterior border is always defined as the extents of the surface triangulation.
borrow pit	A pit that is created at a station along an alignment, to provide material to be used as fill in a mass haul diagram. See also dump site.

boundaries	Three kinds of closed polylines that limit the display area of the digital terrain model. Most common are outer surface boundaries constructed just outside the extremities of the dataset, eliminating unwanted interpolations across empty space where the surface has a concave shape. The following two types of internal surface boundaries are also used: hide boundaries, to punch holes in a surface (for example, a building footprint), or show boundaries, to create smaller surfaces by eliminating areas that fall outside the boundary.
bounded volume	A method of calculating volumes using an existing AutoCAD object (for example, a polyline or polygon) to calculate the cut, fill, and net volume for the area bounded by the object.
BP	Alignment Beginning.
BP:STA	Alignment Beginning Point.
branch fitting	A branch fitting (such as a tee or cross) splits pressure network flow into two or more directions.
BREAK	Grade break.
breakline	A line used to connect the data representing a distinct surface feature, like a ridge line, edge of pavement, toe of a slope, centerline of a road, or flowline of a ditch or stream. When a breakline is defined, the surface triangulation must first follow the breakline, by placing triangle edges coincident with the breakline segments. This ensures the feature in the model is accurately depicted. Then, the rest of the interpolation is performed based on proximity. Breaklines are typically critical to creating an accurate surface model. It is the interpolation of the data, not just the data itself, that determines the shape of the model. See alsonon-destructive breakline.
breakline point	A point that is included in the defined breakline's list of vertices.
BVC	Vertical Tangent-Curve Intersect.
BVCE	Vertical Tangent-Curve Intersect Elevation.
BVCS	Vertical Tangent-Curve Intersect Station.
BVP	Profile Start.　(Base Vertical Point)
ByBlock	A setting specifying that a component of an object inherits the color or linetype associated with the object, or block, that contains it.
ByLayer	A setting specifying that an object or component of an object inherits the color or linetype associated with the assigned layer.
bypass target	A part in a pipe network that has been identified by the user to act as the target for any bypass flows to be directed to.
cant	The change in elevation of rails in a horizontal curve to help counterbalance the centrifugal force of a train while traversing a curve. See also superelevation.
cant deficiency	The difference (in mm or in.) between applied cant and equilibrium cant.
cant gradient	The grade (in rise:run) between two cant critical stations.
catchment area	The area tributary to a lake, stream, or drainage system.
center marker	A diamond-shaped graphic that marks the location of the centroid of a grading object. Right-click the center marker to access the Grading context menu.
chord	A straight line connecting two points on a curve: the Point of Curvature (PC) and Point of Tangency (PT). The curve joins with a line or another curve at these points.
closure	The relative position of a traverse station as it compares to the same station position determined by a different set of observations or route of survey.
clothoid spiral	A spiral in which the curvature is a linear function of the length of the spiral, so that the degree of curvature is zero when it meets the tangent and then increases to match the curvature of the adjacent curve. See also compound spiral, simple spiral.
COGO	Coordinate Geometry.
COGO points	The point objects that you create using the point-creation or point-import. COGO points are referred to simply as "points" in this documentation. The pieces of data associated with a point, such as point number, northing, and easting, are referred to as properties. See also properties.
collimation	The process of adjusting the line of sight or lens of an optical instrument so that it is properly located based on the other parts of the instrument.
comparison surface	A proposed or existing terrain surface used in the creation of volume surfaces. See also base surface, volume surface.
Compass rule	Corrections corresponding to the closing errors that assumes the closing errors are as much due to of errors in observed angles as errors in measured distances. Use the compass rule option when this is the case.

composite volumes	A method of calculating volumes using top and bottom surfaces (a surface pair) to establish cut, fill, and net volume values.
compound curve	A curve consisting of two or more arcs of different radii curving in the same direction, and having a common tangent or transition curve at their point of junction.
compound spiral	A spiral that provides a smooth transition between two adjoining curves of different radii but in the same direction. It has a finite radius at each end. See alsoclothoid spiral.
confidence interval	In statistics, a region or area that has a known probability of containing a random sample. In surveying, a 95% confidence interval indicates that the surveyor can be 95% sure that a point or observation lies within the region or established parameters.
construction geometry	Unconnected portions of parcel and alignment geometry. For example, if you use the tan-tan method and create a number of connected lines, the whole feature is solved and the display characteristics are controlled by the object style. If you create some connected lines and then add a line that is not connected, the result is a piece of 'construction' geometry.
context menu	A menu that is displayed when you select an object and right-click. Context menus are context sensitive so that only commands that are relative to the object that you selected are displayed.
contour	A line that connects points of the same elevation or value relative to a specified reference datum.
control point	Points with a unique identifier that are created at a known location (northing, easting, or latitude, longitude, with an optional elevation or description) and are not affected by adjustments or corrections. Control points are added to a survey database and are managed within a named survey network.
control region	A region that is defined by applying grading criteria to a footprint. A footprint can have a single region along its entire length, or it can be subdivided into a number of control, transition, and void regions. See also footprint.
coordinates	Values that specify exactly where a point is in space in terms of three planes: X, Y, and Z (easting, northing, and elevation).
corridor	Any path, the length and location of which are typically governed by one or more horizontal and vertical alignments. Examples are roadways, railways, traveled ways, channels, ditches, utility runs, and airport runways.
corridor feature line	A component of a corridor object. Created by joining subassembly point codes from one station to another.
corridor surface	A component of a corridor object. Surface triangulation is created from a corridor subassembly point and link codes.
Crandall rule	A method of balancing a traverse in which all the angular error is distributed throughout the traverse and all adjustments to the traverse result from modifying the traverse distances. The modification distance made to each leg is such that the sum of the squares is a minimum. Corrections correspond to the closing errors, which assumes the closing errors are random and normally distributed. It assumes all the angular error has been adjusted before the adjustment routine.
crest curve	In a profile, a vertical curve on the crest of a hill or similar location where the grade leading into the curve is greater than the grade leading out of the curve. In a crest curve, the point of vertical intersection (PVI) for the tangents is above the curve. See also sag curve.
criteria-based design	The process of associating agency-specific standards to an alignment or profile. Agency standards, which are typically based on superelevation and design speed requirements, are contained in a customizable design criteria file. The file can also specify design standards for automatically adding widening to dynamic offset alignments. When an alignment or profile object is created, standards from the design criteria file can be associated with the alignment or profile to ensure that the horizontal and vertical curves comply with the minimum standards. User-defined design checks can be used to identify and report standards violations. See also design criteria file.
cross section	See section.
CS	Curve-Spiral Intersect. See curve to spiral.
CS_LRB:L	Compound Spiral Large Radius at Beginning.
CS_LRE:STA	Compound Spiral Large Radius at End.
CS_SRB:L	Compound Spiral Small Radius at Beginning.
CS_SRE:STA	Compound Spiral Small Radius at End.
curb return alignment	An alignment that connects the edges of two intersecting roadways. The most common curb return geometry is a simple circular fillet. In a typical intersection, curb return alignments are placed in each of the four quadrants, between edges of pavement.

curve to spiral	A point on a horizontal alignment where a curve meets a spiral.
cut length (lay length)	Pipes are manufactured in discrete segments call lay lengths or cut lengths. It is a nominal dimension, which means it describes the general size but may not correspond to an actual dimension.
cut slope	The slope created when the footprint falls below the existing ground line. The resulting slope matching up into the existing ground is called a cut slope because the existing ground must be cut (removed) during construction.
data band	A graphic frame that is associated with a profile view object or section view object. The data band contains annotations for the profile or section view, as well as for the parent horizontal alignment. Some common annotations include elevation data, stations, and cut/fill depths.
data collector	A device surveyors use to automatically record the observation data they collect in the field. They then download and convert the raw survey data to a field book file, which is written in the Survey Command Language format, or a LandXML file, which uses the LandXML schema to describe the Survey data. Surveyors can then import this file to create points in the database and figures in the drawing.
data reference	A read-only copy of an object from another drawing. The referenced object can be used in multiple drawings and stylized locally. After the official copy of the object is updated, drawings with references to it are notified of the opportunity to update their local copy. There are two data reference types used in AutoCAD Civil 3D: data shortcuts and Vault references. Both types can reference surfaces, alignments, profiles, pipe networks, and view frame groups.
data shortcut	An object that can create a data reference between drawings in a project. Data shortcuts are not used with Vault projects.
datum	A reference value. All elevations or coordinates are set relative to this value. In surveying, you can use two datums (horizontal and vertical). For global coordinate systems, a datum refers to the ellipsoid information and the techniques used to determine positions on the Earth's surface. An ellipsoid is part of a datum definition.
daylight line	A line showing the line of zero cut or fill within the job area. For grading objects, it represents the target line produced by grading to a specified surface, distance, or elevation.
decimal degree	The measure of an angle in decimal units. For example, 3°30'36" equals 3.51 decimal degrees.
Decreasing	Station Equation Decreasing.
definition list	A list that contains all the operations performed on a surface. By turning the items in the list on and off, you can modify the surface, return it to a previous state, and so on.
deflection (pressure network)	A pipeline can follow a straight line, or can achieve a gradual change in direction over a succession of pipe joints. Deflection (or joint deflection) is often expressed in angular degrees and quantifies how much change in direction is possible. The larger the angle, the looser the joint. Smaller angles indicate relatively tight joints.
deflection angle	A horizontal angle measured from an extension of the preceding line, right or left.
degrees, minutes, seconds	(DMS) A representation of an angle in degrees, minutes, and seconds in which a full circle contains 360 degrees, each degree 60 minutes, and each minute 60 seconds. A typical bearing in DMS measurement looks like: N45°45'58"E. Using this format, 3°30'36" is entered as 3.3036.
Delaunay triangulation	A calculation method used in the creation of TIN networks. Given a set of data points, Delaunay triangulation produces a set of lines connecting each point to its natural neighbors.
DEM	(Digital Elevation Model) An array of elevations taken on a regularly spaced horizontal grid.
description keys	A method of translating descriptions to help standardize point data when a variety of data sources are used. For example, descriptions of EROAD, EPAVE, ERD, and EDGEROAD can all be translated to a description of EOP. The layer, point style, and point label style options can greatly enhance automatic base plan generation and the overall organization of the drawing.
design check	A user-defined expression used to verify that an entity meets the minimum design standards that were established for the alignment or profile object. Design checks may be defined for different entity types, such as lines, curves, and spirals. A design check must be saved in a design check set to be applied to an alignment or profile. See also design check set.
design check set	A user-defined collection of commonly used design checks. You specify a design check set either during alignment or profile creation, or after creation using the object properties dialog box. See also design check.
design criteria file	A file that contains minimum design standards for alignment and profile objects. The design criteria file may be customized to support local design standards for design speed, superelevation, and minimum speed, radius, and length of individual entities. See also criteria-based design.

design rule	
	A set of automatic constraints for some objects in the drawing that are enforced by applying a specific style. For example, if you are laying out alignments, you can specify a rule for a curve radius.
directional fitting	A directional fitting changes the direction of flow in a pressure network. Elbows, also called bends, come in standard angles: 90º bend (sometimes called a ¼ or full bend), 45º bend (1/8), 22.5º bend (1/16), and 11.25º bend (1/32).
drawing objects	Objects that exist in a single drawing. See also project objects.
dump site	A site that is created at a station along an alignment, at which cut material removed from a mass haul diagram is dumped. See also borrow pit.
Ea	See applied cant
easting	A linear distance eastwards from the North-South line which passes through the origin of a grid. Equivalent to the X coordinate in an XYZ coordinate system.
EC:STA	Curve End.
EDM	Electronic distance measuring devices that measure the round-trip transit time of a pulsed signal from which distance is computed.
EDM Offset	The vertical distance from the scope center to the EDM center. AutoCAD Civil 3D uses this value to calculate distance.
Ee	See equilibrium cant
EFC	End Full Cant.
EFS	End Full Super.
EGL	Energy Grade Line.
ELC	End Level Rail.
elevation	The vertical distance from a datum to a point or object on the Earth's surface. The datum is considered to be at sea level. Equivalent to the Z coordinate in an XYZ coordinate system.
elevation point	A point that marks an elevation change but does not break the horizontal geometry.
ENC	End Normal Crown.
energy grade line	A line in a pipe network or storm sewer drainage system that represents the total available energy in the system (potential energy, or static head, plus kinetic energy, or velocity head).
ENS	End Normal Shoulder.
enumeration	A type of user-defined property which has pre-defined values that you can select from a list.
EOA	End of Alignment.
EP	Alignment End.
EP:STA	Alignment End Point.
equilibrium cant	In a railway track, the differential elevation (in mm or in.) at which the vertical wheel force is equal on both rails.
error ellipse	An elliptical region that shows the confidence interval of an adjusted point. For example, if the confidence is set to 99 %, you can be 99 % sure the calculated ellipse contains the true location of the point.
Eu	See cant deficiency
EVC	Vertical Curve-Tangent Intersect.
EVCE	Vertical Curve-Tangent Intersect Elevation.
EVCS	Vertical Curve-Tangent Intersect Station.
EVP	Profile End.
explicit PI	The point at which two fixed tangents meet on a horizontal alignment. See also point of intersection and implied PI.
face	A three-dimensional surface triangle. A face is represented by either a 3D face object or 3D line objects.
face 1	An angle measurement in which the scope is not flopped. Also called direct.
face 2	An angle measurement in which the scope is flopped. Also called inverse or indirect.
feature line	An object in that the grading commands can recognize and use as a footprint. Usually, a line that marks some important feature in the drawing, such as a ridge line, or the bottom of a swale. See also footprint.
field book	The permanent detailed record a surveyor makes of all observations made in the field. In AutoCAD Civil 3D, a field book file, (*.fbk), it can be used as a source of survey data.
field code	Syntax that corresponds to a predefined convention in a surveying application. Field codes are assigned to each survey point to automate the assignment of point and line properties and to determine the linework connectivity.

Field to Finish	A process of determining the line and curve connectivity between points surveyed in the field that have the same feature name within a point code. This process also assigns symbols to point features based on a feature name within a point code.
figure	Special linework automatically created in a drawing when you import a field book containing figure data. Also created when using AutoCAD Civil 3D survey figure commands. You can control the layers for figures by using figure prefixes.
figure prefix	Used to automatically place figures on user-defined layers based on the beginning part of the figure name. For example, the figure prefix EP can be used to place the figures EP, EP1, EP2, and EPL all on the same layer. Using figure prefixes in conjunction with description keys can largely automate the process of constructing a well organized base plan.
fill slope	The slope created when the footprint falls above the existing ground line. The resulting slope matching down into the existing ground is called a fill slope because material must be brought in to fill the area during construction.
fitting	See branch fitting and directional fitting.
fixed entity	An alignment entity with a fixed position, not necessarily tangent to another entity for the definition of its geometry. See also floating entity, free entity.
floating entity	An alignment entity that is tangent to one other entity (before or after) for the definition of its geometry. See also fixed entity, free entity.
flow rate	A hydraulic property, often used in designing storm sewer and other systems, that represents the volume of fluid over time that flows through a system.
footprint	The object to which grading criteria are applied. A footprint can be an open or closed 2D or 3D geometric figure that is a feature line, parcel line, or survey figure.See also feature line.
footprint vertices	The endpoints that define the segments of a footprint with an XYZ location and stationing starting at the first vertex.
foresight	A point to which an instrument sighting is made to measure or establish its elevation or horizontal position.
free entity	An entity that is tangent to two other entities (before and after) for the definition of its geometry. See also fixed entity, floating entity.
free haul	The material moved within a certain defined distance of its point of excavation (the free haul distance), free of charge by the contractor. See also mass haul,overhaul.
frontage	The parcel segments that are adjacent to a right-of-way. The frontage is also considered to be the parcel segments located at the front of the parcel.
frontage offset	A user-defined length used to offset the current frontage definition to the inside of the parcel being subdivided. When the frontage offset is used, the minimum frontage length is applied at and along the frontage offset instead of the frontage.
front yard	The offset distance from the parcel frontage segments to the setback line.
full description	The expanded description of a point after description key matching has taken place.
gauge	In a railway track, the distance between the inside edges of the rails, minus the width of the rail head. See also track width
geodesic	On a surface, the shortest line between two points, either a line or curve from one point along an ellipsoid to another.
geodetic	A basic relationship to the Earth that takes into account the curvature of the Earth's sea level surface. For example, a geodetic distance is a distance or angle in which the Earth's curvature is taken into account, versus a distance or angle measured on a flat paper map.
grade	A method of reporting ground inclination in which the change in elevation is expressed as a percentage of the horizontal distance travelled. For example, if the ground rises one linear unit (meter or foot) over a horizontal distance of five units, the grade is 20%. See also slope.
grade line	See layout profile.
grade point	A point in a mass haul diagram at which mass haul transitions from cut to fill. When free haul is measured from grade points, the highest point (or lowest, if below the balance line) is the grade point. See also balance line, mass haul line.
grading	The process used to model the finished ground surface.
grading criteria	Parameters such as target and projection method for the grading.
grading face	The area bounded by the footprint, the daylight line, and the two projection lines.
grading group	A collection that ties grading objects together for the purposes of surface creation and volume calculation.
grading target	The grading target defines what the projection lines from the footprint will intercept. The three choices for targets are: surface, relative or absolute elevation, and distance. See also daylight line.

grads	A system of angle measurement in which one grad equals 1/100 of a 90° angle, or 360° = 400 grads.
grid	A system of lines parallel to a given set of axes at a specific spacing. Grids are used to visualize surfaces and calculate volumes. A grid is also used for geodetic purposes.
grid distance	The distance between two points based on a coordinate zone, not on local northing and easting coordinates.
grid easting	The easting coordinate that is based on a selected coordinate zone, as opposed to the local easting, which is based on the surveyor's base point. See also local easting.
grid northing	The northing coordinate that is based on a selected coordinate zone, as opposed to the local northing, which is based on the surveyor's base point. See alsolocal northing.
grid surface	A type of surface created from a DEM or SDTS file, or imported from a LandXML file. A grid surface consists of a sampled array of elevations for a number of ground positions at regularly spaced intervals.
grid volume surface	A differential grid surface based on user-specified base and comparison surfaces. The grid method of volume calculation measures the difference in elevation between two surfaces at each intersection in a user-defined grid.
grip	A moveable point on an object that you can drag to edit the object dynamically.
handle	The unique identifier of a drawing object, used as a reference within the software. Users normally do not need to know about handles unless they are using the Data Shortcuts Editor.
hectare	A measure of area, generally relating to land, of 10,000 square meters or approximately 2.47 acres.
HGL	Hydraulic Grade Line.
High-definition surveying (HDS)	3D laser scanning typically associated with terrestrial based laser scanners. The terms "High-Definition" and "HDS" are trademarks of Leica Geosystems.
horizon	An axis that the scope of a theodolite or transit rotates about when moved vertically. The axis of rotation perpendicular to the vertical axis.
HP	High Point.
hydraulic grade line	A line in a pipe network or storm sewer drainage system that represents the elevation head and pressure head of fluid at any point along a system.
implied PI	A computed point of intersection (PI) at an alignment curve or curve group. An implied PI indicates where tangents would meet if they were extended outward.See also point of intersection and explicit PI.
import event	A named collection in a survey database that provides a context to the specific data that was imported using any of the Survey Import commands, such as the Import Survey LandXML command, or the Import Survey Data wizard.
Increasing	Station Equation Increasing.
incurve	A spiral with a curve radius that decreases along the route of the defined direction.
interference checking	An AutoCAD Civil 3D feature available with pipe networks that lets you identify pipe network parts (pipes and or structures) that physically overlap each other, or are too close to one another based on predefined proximity criteria.
intersection	The point where two or more lines, arcs, figures, or objects join or cross in two- or three-dimensional space.
inverse	An inverse calculation on a closed figure calculates the bearings and distances between coordinates and reports the area. Because you use exact numbers (coordinates) to determine corners, no closure error is reported.
junction loss	Or junction loss coefficient. A hydraulic property value used in storm sewer drainage systems that can be computed and defined in a pipe network. It is associated with the loss of energy through a junction. This numeric value has no units associated with it, and can be automatically calculated or manually entered using the Hydraflow Storm Sewers extension application. It is used to compute minor loss for hydraulic analysis.
K	Curve Coefficient.
known capacity	A numeric value that represents the flow in a pipe network or storm sewer drainage system as designated by the user.
Kriging	A method of surface smoothing that uses known values and a semivariogram to determine unknown values. Based on the semivariogram used, optimal weights are assigned to known values to calculate unknown ones. Since the variogram changes with distance, the weights depend on the known sample distribution.
L	Left.

label component	Text, a block, direction arrow, line, or tick that is used to construct a label style. Label styles can be made up of multiple label components.
label set	A collection of label definitions for multiple label types, such as station labels and geometry point labels. For example, alignment station labeling can be composed of major station labels, minor station labels, and geometry point labels.
latitude	The angular distance measured on a meridian north or south from the equator.
layout profile	A profile object that represents the finished ground elevations along a horizontal alignment or other linear feature that supports profile views. Typically, this data is designed, not derived from a pre-existing source, and consists of a series of vertical tangents connected by vertical curves located at each point of vertical intersection (PVI). This profile is also known as vertical alignment, profile grade line, grade line, and finished grade profile.
layout toolbar	A floating, dockable toolbar that groups object-specific design and editing tools.
LB:L	Line Beginning.
LC	Level Crown.
LE:STA	Line End.
least squares	A method of balancing a traverse in which the squares of the differences between the unadjusted and adjusted measurements (angles and distances) are summed and reduced to a minimum. This method uses the error specifications in the current equipment settings to determine the expected source of errors, and weights the individual measurements accordingly.
length weighted distribution	A vertical adjustment that distributes the vertical closing error to each line, at the same ratio as the length of that line is to the total length of the traverse (similar to the Compass rule).
LIDAR	Light Detection and Ranging. Typically associated with airborne laser scanning.
linework code set	A file that dictates the syntax of linework connectivity commands that are specified within a field code. A feature that is an edge of pavement may be abbreviated as EP or EOP in the field code but the set of abbreviations are part of the field coding standard established by a company. The linework code accompanies the feature name within the field code, for example "EP B", where "EP" is the feature name, and "B" is the linework code to begin a survey figure.
link codes	A set of standard codes that define the display and behavior of links used in subassemblies.
local copy	A copy of a project drawing that resides in your local folder, as opposed to the master copy of the file in the project Vault database. Also refers to a copy of a project point that exists in a local drawing.
local easting	The easting coordinate that is based on the surveyor's assumed horizontal base point, as opposed to the grid easting, which is based on the global coordinate zone. See also grid easting.
local elevation	The elevation coordinate based on the surveyor's assumed vertical base point, or benchmark, versus a real world elevation value.
local northing	The northing coordinate that is based on the surveyor's assumed horizontal base point, as opposed to the grid northing, which is based on the global coordinate zone. See also grid northing.
locked point	A drawing point whose coordinate data cannot be modified. Point locking applies only to the drawing in which the point resides. See also protected point.
logical name mapping	The process of mapping logical names in subassemblies to actual AutoCAD Civil 3D object names.
longitude	The angle between the plane of a given meridian and the plane of the Greenwich meridian.
LP	Low Point.
LSM	Low Shoulder Match.
MAN	Manual.
map check	A map check reports how accurate your angle observations are, and the area of closed figures. You can perform a map check on an open or closed figure that was drawn by using angles. Because the accuracy of the figure is based on the precision of your angle measurements, an amount of closure error is associated with such a figure. The greater the precision you use, the less error there will be. In contrast, if you draw a figure between known coordinates, then there is no need to perform a map check, because there will be no error. A map check reports precision and mathematical closure based either on bearing and distance entries of a closed figure, or for an open figure between two known points. The accuracy of a map check is based on the precision used to calculate it. For example, if you use data that is rounded to the nearest foot, then the results are less accurate than if you use data rounded to the nearest one-hundredth of a foot.

masking	A process of obscuring objects so that text can be placed over them in a clear area. Masking maintains legible text without destroying the objects underneath.
masks	Polygons used to mask the visible portions of a surface.
mass haul	The volume of excavated material times the distance it is required to be moved. A mass haul diagram presents a visual representation of the cumulative cut and fill material volumes on a project. Mass haul diagrams (along with grading summaries) are the contractor's primary tools for bidding earthwork. See also free haul,overhaul.
mass haul line	A line marking the balance between cut and fill in a mass haul diagram. When the mass haul line is above a balance line, it indicates material to be cut. When the mass haul line is below the balance line, it indicates a volume to be filled. See also balance line, mass haul.
match line	See daylight line.
mid-ordinate	On a circular arc, the distance from the midpoint of a chord to the midpoint of the subtended arc.
modifier	A formula for formatting property field values, such as decimal precision for an area. You can use predefined modifiers, such as acres, feet, and meters, or you can define a custom modifier. See also property fields.
nadir angle	The nadir angle is opposite the zenith.
name template	A default name format that can be incremented for each new object of that type.
Natural Neighbor Interpolation (NNI)	A method of surface smoothing supported on TIN surfaces. NNI uses Delaunay triangulation to determine the elevation of an arbitrary point based on the elevations of known neighbor points.
network	A series of interconnected lines that represent the observed instrument setups.
next counter	The next available number in a series. Used in a name template.
nominal diameter	Describes the size of a pipe. The actual dimensions of some pipes coincide with their nominal diameters, but for many pipes, their nominal dimensions do not coincide with any of their actual dimensions.
non-control point	Points that are created with a unique identifier, northing, easting (or Latitude, Longitude), and optional elevation and description. A non-control point represents a point whose location is determined from a reduced coordinate (N,E,Z) observation, such as point created by the NE SS survey command. A non-control point is not connected to other survey observations and remains unaffected by a network analysis, but still resides within the context of a survey network. Non-control points are added to the survey database and are managed with a named survey network. Non-control points can be promoted to control points if you reference the point as a control point for creating a traverse, or reference the point as a setup to make observations to other points that can affect locations during an analysis.
non-destructive breakline	A breakline that is not crossed by triangulation lines in a TIN. Instead, new vertices are added to the breakline at the intersection of each TIN line and the breakline. The new points create additional surface triangles. This is useful when you do not want the elevation of a surface to be interpolated inside an area that you know to be a constant elevation.
northing	A linear distance northwards from the East-West line which passes through the origin of a grid. Equivalent to the Y coordinate in an XYZ coordinate system.
note reduction	The process of taking field measurements and converting them from 3-dimensional to 2-dimensional in order to use the measurements in a plan view of the drawing. For example, note reduction includes the process of converting vertical distances to horizontal distances.
null assembly	A placeholder assembly that is used during intersection object creation, when a referenced assembly cannot be found. A null assembly generally contains no subassemblies other than a marked point. See also assembly set.
object	In AutoCAD Civil 3D, an element in a drawing, for example, a surface, that can maintain a relationship with other objects.
object model	The underlying system of links and dependencies between objects. In the object model, changes in one object can be passed on automatically to all the objects associated with it.
occupied point	A point in a traverse loop where the survey instrument is set up and observations are recorded.
offset alignment	A dynamic alignment created at an offset distance from another alignment, such as a road edge offset from a centerline alignment. The offset alignment geometry cannot be edited directly, but it responds dynamically to edits of the parent alignment.
outcurve	A spiral with a curve radius that increases along the route of the defined direction.
overhaul	The excavated material that must be hauled beyond the free haul distance. See also free haul, mass haul.

overlap	In roadway or railway design, the condition in which one curve's superelevation or cant transition in region starts within the previous curve.
override	A value for a setting that replaces the value already set at the next higher level.
Panorama	A window that displays data in table form for the objects in a collection that is selected in Toolspace. For example, if you select a point group, the Panorama table displays a row for each point.
parcel	A discrete piece of 2D area. For example, a subdivision is composed of numerous parcels. Synonymous with lot.
parcel node	A point where two or more parcel segment ends join.
parcel segment	A parcel boundary element, a line, or a curve.
Part Builder	A parametric modeling tool used to create and modify the set of pipe network parts (pipe and structure shapes) that are available in pipe network part catalogs.
part catalog	An xml file that contains definitions for the three-dimensional, parametric shapes of pipe and structure objects used in pipe networks.
parts list	A set of references to pipe network parts (pipes and structures) whose shapes are defined in a catalog called the part catalog.
passing sight distance	The distance measured to a point where an approaching vehicle comes into view ahead of a driver on an undivided road. This is used to calculate vertical crest curves.
pass-through point	A point on the path of a line or curve, often used to define an alignment. A pass-through point on a curve can be used as a grip to control the position of the curve. However the alignment is edited, its geometry has to go through the pass-through point.
pay item	A specific unit of work for which a price is provided and paid to a contractor while a project is under construction.
pay item list	A master list provided by the contracting authority, listing pay item numbers, item specifications, and item units of measure.
PC	Tangent-Curve Intersect. See point of curvature.
PCC	Compound Curve-Curve Intersect.
PI	Tangent-Tangent Intersect. See point of intersection.
pipe network	A pipe network object manages a collection of pipe objects and structure objects that are used to represent a pipe network in a drawing.
pipe object	A type of object used to visually represent a pipe in a pipe network, such as a circular, rectangular, or egg-shaped pipe.
plan readable	Text that you can read easily in a normal plan view, that is, placed at an angle less than 270 degrees and more than 90 degrees. Also called right-reading.
plan view	The view of a site if you look straight down from an elevated position.
point codes	A set of standard codes that define the display and behavior of points used in subassemblies.
point group	Collection used to group the points in a drawing into smaller, more manageable units. For example, you can create a point group that contains all of the points in a drawing that meet certain elevation criteria.
point list	The list of the points that belong to a point group.
point marker	See point symbol.
point of curvature	(PC) The point where an arc is drawn from a tangent.
point of intersection	(PI) The point where two tangents meet on a horizontal alignment. Curves and spirals also have points of intersection, which indicate where the tangents would meet if they were extended outward.
point of tangency	(PT) The point where a curve meets a tangent.
point of vertical intersection	(PVI) In a profile, the point where two tangent lines meet.
point symbol	A point location marker. When you add points to a drawing, point symbols are created to represent the points. The point style referenced by a point describes how the point symbol is drawn.
polyface	A 3-dimensional (polygon) mesh object. Each face is capable of having numerous vertices.
PRC	Reverse Curve-Curve Intersect.
prism	A faceted glass reflector used to return the signal from an EDM, whereby the EDM can determine the distance to its reflection point.
prism constant	The distance between the point of plumb and the reflection point within the prism.
prism offset	The vertical distance between the theodolite target point and the optical center of the reflector.

profile	An object that contains elevation data along a horizontal alignment or other line. There are two main types of profiles: surface and layout. Profile data objects can be viewed within a profile view object.
profile grade line	See layout profile.
profile view	An object that manages the graphic display of profile data objects within a drawing. A profile view is essentially a graph with two primary axes: the x-axis represents horizontal distance along the referenced horizontal alignment (or other linear feature). The y-axis represents elevations. Profile view objects can also include grid display components and data bands.
project drawing	A drawing that has been added to a project.
projected object	An object in plan view of a drawing that is projected into a profile view or section view. AutoCAD objects that can be projected include points, blocks, 3D solids, and polylines. AutoCAD Civil 3D objects that can be projected include points, feature lines, and survey figures.
projection lines	In a grading, the lines that designate face edges within a region for break points on the footprint or the daylight line, and for the facets of curves (corner cleanup, vertical curves).
project objects	Objects that exist in a project drawing and have been designated as shared, which means that they can be accessed by others. See also drawing objects.
properties	The settings that apply to a particular instance of an object.
property fields	The placeholders in labels that contain content, such as text or graphics, along with format modifiers unique to specific features. Property fields can be named and their values defined according to the feature with which they are associated. See also modifier.
Prospector tab	The part of Toolspace where you access drawing and project objects. Objects are arranged in a tree or hierarchy with folders and subfolders that you navigate in standard, Windows-Explorer fashion. See also Settings tab.
protected point	A project point that you cannot check out and therefore edit.
proximity breakline	A breakline that is drawn as a polyline without snapping to points in the drawing. The northing, easting, and elevation of the breakline vertices are determined from the nearest point contained in the surface point data, after generating the surface.
PT	Curve-Tangent Intersect. See point of tangency.
PVI	Point Of Vertical Intersection. See point of vertical intersection.
quadrant	One of the sections resulting from dividing a circle into four equal parts. Quadrant 1 is the NE corner, and quadrants 2, 3, and 4 proceed clockwise around the compass. Bearings are usually referenced by quadrant number.
quantity takeoff	The analysis of detailed cut and fill requirements along an alignment. A quantity takeoff report provides information on the total volume of material required to create a finished grade surface, including the process of cutting existing ground and refilling it with a different material, such as coarse gravel.
R	Right.
radians	A system of measure in which 2 pi radians equals 360°.
raw description	The original description of a point, before description key matching takes place. Often corresponds to the point description entered in the field by a surveyor.
raw station	A station value on an alignment, either formatted or unformatted, that does not take into account any station equations applied to the alignment.
RC	Reverse Crown.
rear yard	The offset distance from the parcel rear segments to the setback line.
Referenced Text	A label component that contains references to other AutoCAD Civil 3D objects.
reference object	Within a project drawing, the read-only geometry of an object that exists in another project drawing. Objects that can be referenced include surfaces, alignments, profiles, and pipe networks. The host drawing can apply local object styles and annotations, and perform some analysis on reference objects.
region (grading)	The area where grading criteria are applied to a lot line or a feature line.
region lines	The projection lines that designate the start and end of the grading regions (criteria or transition) by connecting the footprint to the daylight line.
return period	A time period that represents an interval at which an event, such as a large storm, occurs. It is used to calculate various flow control methods in a pipe network or storm sewer drainage system.
right-of-way	(ROW) The allowable work area for an alignment. Property lines of the property owners who reside adjacent to the construction site generally specify these limits, which are called right-of-way lines.

right-of-way parcel	A parcel that is created from an alignment that crosses the original parent parcel.
rod	A slender bar of wood or metal marked with some type of measurement used to measure elevation and/or distance.
ROW	See right-of-way.
sag curve	In a profile, a vertical curve at the bottom of a valley or similar location where the grade leading into the curve is less than the grade leading out of the curve. In a sag curve, the point of vertical intersection (PVI) for the tangents is below the curve.
sample	The process of obtaining elevation information from an existing terrain model or surface.
sample line	A line that typically cuts across an alignment, and that can be used for creating cross sections.
SBO	Shoulder Breakover.
SC	Spiral-Curve Intersect. See spiral to curve.
SDTS	See Spatial Data Transfer Standard.
section	An object that contains elevation data along a sample line.
setback line	A closed polygon that is the result of offsetting and intersecting each parcel segment by its respective front/side/rear yard distance. The exterior of the setback line typically represents the area where permanent structures are not permitted.
settings	A collection of properties and styles that apply to an object.
Settings tab	The part of Toolspace where you access the styles for the different types of objects, including object labels and tables. See also Prospector tab.
setup	Instrument setups that are defined in the Survey database.
shape codes	A set of standard codes that define the display and behavior of shapes used in subassemblies.
shortcut	See data shortcut.
sideshot	A point that is created with a unique identifier, resulting from relative observations (such as angles, distances, vertical angles, and target heights) taken from a survey station or setup to locate a point that is not intended to be used as a base for the extension of the survey. For example, at one station (setup) in a traverse loop, you can survey points for stone walls, trees, buildings, and wetlands.
side yard	The offset distance from the parcel side segments to the setback line.
simple spiral	A spiral that provides a smooth transition between a tangent of infinite radius to a curve of finite radius. See also clothoid spiral, compound spiral.
site	A collection of objects that are managed by means of common topology. The objects that participate in the topology are parcels, alignments, and grading. See also topology.
slope	A method of reporting surface inclination as a ratio that expresses the horizontal distance in which the elevation changes by one linear unit. For example, if the ground rises 3 units over a horizontal distance of 15 linear units (meters or feet), the slope is 5:1 (5 to 1). See also grade.
slope projection	The method of grading to a target that is either Slope (H:V value) or Grade (percentage value).
south azimuth	Azimuths south of the equator are referenced to due South clockwise.
Spatial Data Transfer Standard	A file format designed as a mechanism for the transfer of spatial data between various computer systems. The SDTS Format is designed to transfer data with complete content transfer (no loss of information).
SPI	Reverse Spiral Tangent.
spiral	See clothoid spiral, compound spiral, simple spiral.
spiral to curve	(SC) A point where a spiral meets a curve.
spiral to tangent	(ST) A point where a spiral meets a tangent.
split point	The location where two feature lines cross although neither has a geometry point at that location. You cannot directly edit the elevation of these points.
split profile	A profile view that has a readjusted datum at a station where one or more profiles goes out of bounds. This condition happens if a profile view that has a user-defined height is not able to adequately portray the full extents of a profile.
spot elevation	The elevation of a single point in the drawing. Used to define areas that are sparse in contour data when generating a TIN using contour information. Areas that may also need spot elevations are the top of hills, valleys, and bottom of swales.
SS	Spiral-Spiral Intersect.
SS_LRB:L	Simple Spiral Large Radius at Beginning.
SS_LRE:STA	Simple Spiral Large Radius at End.
SS_SRB:L	Simple Spiral Small Radius at Beginning.
SS_SRE:STA	Simple Spiral Small Radius at End.
ST	Spiral to Tangent Interesct. See spiral to tangent.

stacked profile views	A collection of related profiles drawn in separate, vertically arranged profile views. Typically, a centerline profile is contained in one profile view, and its left and right offsets are drawn in profile views that are placed above and below the centerline profile view.
stacked text	When you drag a label from its point of origin, label text can be rearranged by specifying settings for text justification, text height, and relationship to borders.
stadia	A technique of distance measurement using a rod and a stadia transit.
stakeout	The process of placing stakes in the ground at control points on a site that is being developed. For example, after you place points in your drawing, or after you design an alignment, you can create stakeout reports that list the coordinates of each stake. Someone else can then use these stakeout reports to place (or adjust) the stakes at the site.
standard breakline	A breakline defined from selecting consecutive points or point numbers, or selected 3D polyline or 3D line objects.
starshot	Determining azimuth by using a star rather than a compass.
station	A distance along a horizontal alignment.
station equation	A point on an alignment that defines a change in the station values after that point.
stationing	The labeling that provides a reference when talking about a specific point along the reference baseline.
stopping sight distance	The distance required to safely stop a vehicle, traveling at design speed, to avoid a collision with any other non-moving objects obstructing the travel path.
stratum	The difference between two surfaces that exist in a drawing, usually the existing ground surface and a finished ground surface, which is used for calculating volumes.
structure object	A type of object used to visually represent structural components used in a pipe network, such as a headwall or a catch basin.
style	A logical collection of settings that applies to a class of objects. Styles simplify the process of apply settings by simply referencing a style. Modifying a style affects all the objects referencing that style.
subassembly	An AutoCAD drawing object (AECCSubassembly) that defines the geometry of a component used in a corridor section. The AutoCAD Civil 3D tool palette and tool catalogs provide a variety of preconfigured subassemblies, such as travel lanes, curbs, shoulders, and ditches.
subdivision	An unimproved tract of land surveyed and divided into parcels for purposes of sales.
sunshot	Determining azimuth by making observations on the sun rather than by a compass. the change in cross slope or 'banking' on a horizontal curve to help counterbalance the centrifugal force of a vehicle traversing the curve
superelevation	The change in cross slope or 'banking' on a horizontal curve to help counterbalance the centrifugal force of a vehicle traversing the curve. See also cant
surface	A network of elevation data (either TIN or Grid). The points of a surface are connected into either triangles or a grid, which are then used to interpolate contours, and to generate profiles and cross sections. A surface represents the ground condition at a particular time or event.
surface border	See border.
surface boundary	See boundaries.
surface distance	The distance between two points, measured along the ground surface. On a sloped surface, the distance between two points can also be measured as a horizontal distance and a vertical distance.
surface profile	A profile object that represents existing ground elevations along a horizontal alignment or other linear feature that supports profile views. Typically this data is derived from an existing surface or data file, and consists of a series of connected vertical tangent lines without vertical curves defined. If necessary, you can add vertical curves.
surface smoothing	A process that interpolates and extrapolates surface data to derive additional elevation values. Kriging and Natural Neighbor Interpolation (NNI) are the two methods of surface smoothing.
survey command language	A language that you can use either with a data collector or when you enter survey data manually. This language describes survey observations. For example, you can use the AD [VA] command to enter an angle, distance, and vertical angle.
survey database	Contains all the control points, known directions, observation measurements, traverse definitions, figures, and standard deviations based on equipment data for the Survey project. This includes observations imported from data collector files, entered from the Survey Toolspace tab (Traverse and Observation Editors, Survey Command Window and Batch File processing).

Survey Point	A point that is created by the Survey features of AutoCAD Civil 3D, such as importing a field book or LandXML file containing survey data. A survey point can represent a Control Point, Non-control Point, Setup, or Sideshot. When a survey point is placed in the AutoCAD Civil 3D drawing, it creates a special AutoCAD Civil 3D COGO point that prevents its location and description from being modified from outside the AutoCAD Civil 3D Survey features. For example, a survey point location may be a traverse station whose location is dependent on many observations from previous traverse stations, all originating from a known control point and direction. In the AutoCAD Civil 3D drawing the Survey Point displays a different icon than the AutoCAD Civil 3D COGO point to indicate its origin.
Survey tab	The tab in Toolspace where you access and manage survey settings, survey-related databases, and survey project data.
tangent	A straight line segment that forms part of a horizontal alignment or profile. Tangent Distances are measured as the horizontal distance between the two end points.
target	The element of grading design criteria that determines what the grading is going to intercept. A target can be a surface, absolute elevation, relative elevation, or distance.
target line	See daylight line.
template	A collection of default settings and styles used to create a drawing.
terminators	Graphics, such as arrowheads, ticks, or crow's feet, that display at the end of lines, arcs, or spirals.
tessellation	The representation of curves by using short straight line segments.
tessellation angle	Controls the angular spacing of breaklines that are supplemented along curve segments, such as around corners. Used for surface creation from grading objects.
tessellation spacing	Controls the spacing of supplemental breaklines that are added to a grading along straight segments. Used for surface creation from grading objects.
tick	A component of a label that is usually a mark (or short line) inserted in a series at perpendicular angles to another object, such as a line or curve.
TIN	Triangular Irregular Network. A TIN surface is the most common method of interpolating elevation data. The points are connected into triangles that are used to interpolate for contours, and to generate profiles and cross sections. The lines that make up the surface triangulation are called TIN lines. See also 3D face.
TIN volume surface	A differential surface created from a composite of points based on base and comparison surface. Also known as a differential surface.
Toolspace window	A window that provides an object-oriented view of your engineering data. Toolspace is divided into four parts or tabs: Prospector tab, Settings tab, Survey tab, and Toolbox tab.
topography	The features of the actual surface of the Earth.
topology	A set of geometric connections between objects. Objects linked by topology maintain their relationships with one another. In AutoCAD Civil 3D, objects that share the same topology are grouped in a site. See also site.
track width	In a railway track, the distance between the inside edges of the rail heads. See also gauge.
transition region	An area of a grading that blends the control regions on either side of it. A transition region has no design criteria assigned to it.
transit rule	A method of balancing a traverse, in which one assumes that the closing errors are caused less by the errors in the observed angles than by the errors in measured distance. Corrections are distributed according to the ratio of the latitude and departure of each leg of the traverse, to the sums of the latitude and departures of the entire traverse. Use the Transit Rule option when it is assumed that closing errors are due less to the errors in the observed angles than to errors in the measured distances.
transparent command	A command that you can run while another command is in progress. Transparent commands begin with an apostrophe (').
traverse	A method of surveying in which length and directions of lines between points on the Earth are obtained by or from field measurements, and used in determining positions of the points. Traverse closure for closed or open loops is recognized by the observation to a control (fixed or known) point. A closed traverse begins and ends at the same control point. An open traverse closes at a different control point than the beginning point.
triangle area	The 2-dimensional (2D) area of a triangle face computed from the northing and easting of each triangle point. The total triangle area is the sum of all 2D triangle areas with the surface boundaries.
trim (surface)	The process of removing unwanted TIN lines from a surface, thereby removing triangles.
TS	Tangent-Spiral Intersect.

user-defined property	A property defined by you to assign values to points or parcels. Points and parcels have many default properties, but user-defined properties allow you to specify others as needed.
user-defined property classification	A way to group user-defined properties into logical categories.
vault	A database that is managed by Autodesk Vault.
Vault reference	A type of data reference between drawings within a Vault project.
VCC	Vertical Compound Curve Intersect.
VCCE	Vertical Compound Curve Intersect Elevation.
VCCS	Vertical Compound Curve Intersect Station.
vertical alignment	See profile.
vertical angle	An angle above or below the horizontal plane. The angle is expressed in DDMMSS from this horizon. Vertical angles expressing a downhill slope from the instrument station are described with a negative value. Zenith angles are similar to vertical angles, except that a zenith angle has a vertical reference plane.
vertical curve	A curve used on a profile (most commonly on layout profiles) to provide a gradual change in slope from one tangent to the other. There are three types of vertical curve: parabolic, circular, and asymmetrical.
vertical distance	A distance measured along a sloped surface. For example, if you measure a distance from point A to point B that is on a 3:1 grade, then that distance is longer than the distance measured horizontally.
vertical exaggeration	An increase of vertical scale relative to horizontal scale, used to make grade changes easier to differentiate. See vertical scale.
vertical scale	The scale that is compared to the horizontal scale to calculate the vertical exaggeration in profiles and cross sections. It does not actually change the scale that is used when the drawing is plotted.
vertical to horizontal	Vertical angles and distances are converted automatically to horizontal angles and distances when you adjust a traverse loop, or perform Least Squares adjustment on observed data.
void region	An area along a footprint where grading has not been applied, creating a gap in the grading.
volume surface	A surface that is created by calculating volumes using the grid (differential) or TIN (composite) methods. The surface is created from the two surfaces that make up the stratum. The elevation values of a volume surface are actually the difference between the two surfaces. For example, at point 1000,1000, the bottom surface has an elevation of 100, and the top surface has an elevation of 150. The elevation of point 1000,1000 on the volume surface is the difference between the two surfaces, which is 50.
VRC	Vertical Reverse Curve Intersect.
VRCE	Vertical Reverse Curve Intersect Elevation.
VRCS	Vertical Reverse Curve Intersect Station.
wall breakline	A breakline that represents surface features such as retaining walls, curbs, bridge abutments, and so on.
water drop	A path drawn with a 2D or 3D polyline, which represents water as it flows downhill.
watersheds	Catchment areas for rainfall that are delineated as the drainage areas producing runoff. Base flow in a stream also usually comes from the same area.
weeding	The removal of points along a selected polyline representing a contour. The weeding factors determine the amount of points removed. You can use weeding to reduce the amount of point information taken from the contours that may not be necessary to generate an accurate surface. See also weeding factors.
weeding factors	The settings used to reduce redundant points along the contours by ignoring contour vertices that are close together or along a straight line. A larger distance and deflection angle will weed a greater number of points.
widening	A type of dynamic offset alignment that expands the width of a roadway for a specified length to accommodate a feature such as a turn lane or bus bay. The widening usually includes a transition region at one or both ends.
zenith angle	The point directly overhead or the point where an observer's vertical line pierces the celestial sphere. Opposite zenith is the nadir.