

FEATURE CODE SUMMARY

MDTSURVEY_ENG_1.0.FXL



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GENERAL

The document's intended use is to aid the end user in their effort to complete a Project by providing guidelines for collecting features (data points), while utilizing the current software and hardware of the Data Collection System.

This document will provide the end user with a better understanding of the Data Collection System by supplying them with the current Feature Codes and Attributes.

FEATURE CODES

Feature Codes are a way to describe each individual data point by giving them unique names by their physical features. In addition to the Feature Codes, the data points will be given Attributes for collecting additional information that will further describe the data point.

When collecting data points, there are two distinct types of Feature Codes: Linear & Point Features.

Point Features

Point Features are represented by a single data point. Point Features should be used when a single data point or a small group of data points (not represented by a line) are to be collected.

Linear Features

Linear Features are represented by a series of two or more data points and will be connected together by a line. Make sure to use a Linear Feature if one is warranted, a series of Point Features are not a substitution.

There are also a few features that are single data points but will be collected as a linear feature to show not only the location of the data point but also a direction.

In addition to the feature types, there are two feature categories, DTM Features and non-DTM Features.

DTM Features

DTM Features are those data points that are to be included in the 3D/Digital Terrain Model (DTM) that will represent the shape of the existing surface and will be used to calculate areas or volumes.

When collecting DTM Features, one must make sure to include all horizontal and vertical breaks in the existing surface to assure an accurate representation of the existing terrain.

Non-DTM Features

Non-DTM Features are those data points that are representing items above or below the existing surface and will not be used to calculate volumes.

When collection non-DTM Features, a general rule is that only the horizontal breaks in the existing surface be included for collection purposes. However, if a non-DTM Feature is to be later used as a DTM Feature, it must follow the guidelines for a DTM Feature or the Volumetric results may not be very representative of the existing terrain.

DOCUMENT LAYOUT

The table/field layout is used to display as much information as possible in the space allotted. There is similarity of the tables from feature to feature to assist in displaying the information so that it is easier to understand and access.

Feature Code Field

The Feature Code is used in all aspects of the Data Collection System from the data collector to the processing software to design. It is an abbreviated term representing the collected feature consisting of 2 to 8 characters.

Attributes Field

The Attributes for a Feature Code are unique to each feature and are explained in the specific fields that follow the Attributes. There are three different data types; Text, Numeric and List Fields utilized when entering information into the Attributes' fields.

The **Text Field** is used when the Attribute contains information that will be generic in nature. The user has the flexibility to use any character available when entering the data. String Fields.

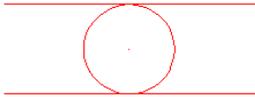
The **Numeric Field** is used when the Attribute contains information that will be of a numeric nature. The user is limited to using only numerals and the number of decimals assigned for the specific Attribute field.

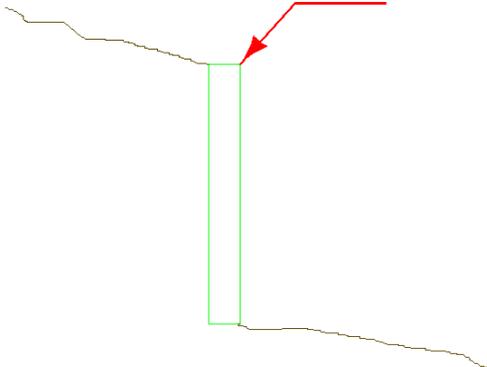
The **List Field** is used when the Attribute contains information that will be specific in nature. The user is limited to the given choices for the specific Attribute field. In addition, a choice of other is given when something unexpected or rare is encountered for the Attribute. In this case, the user should further explain by collecting additional information in another manner or format (ie adding comments or notes or by taking digital photos, etc).

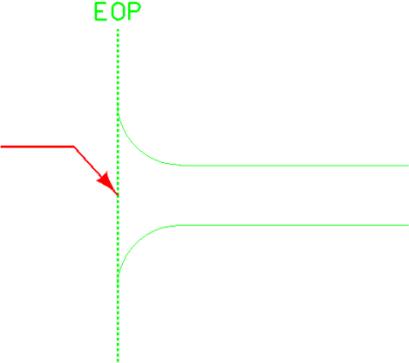
Line strings

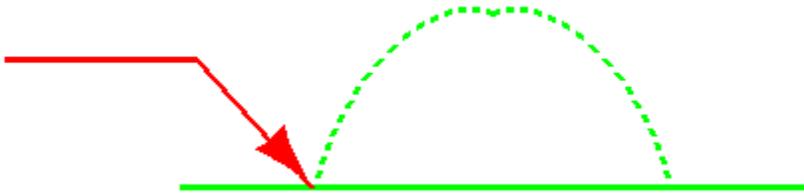
Line Strings give the user the ability to use feature codes with numeric suffixes over and over by beginning and ending lines. To begin a line, simply add a space after the feature code with a numeric suffix and insert BL* (EOP01 BL*). To end a line, insert a space and add EL* (EOP01 EL*). To close a line back on itself, use the close command by inserting a space and adding CL* (CONC01 CL*). You can run as many lines as you desire by increasing the numeric value at the end of your code (EOP02). Line strings also allow for multiple codes for a single shot by inserting a space between them (FENCE01 EL* GATE01 BL*).

FEATURES

2FACE		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	SIGN – TWO-FACE		
General Summary			
			
<p>This feature is to represent a single-post two-faced sign. The data point collected should represent the center of the post.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

ABUT	Category	Feature Type
	Structure	Line (include in surface)
Description	CONCRETE ABUT/RETAIN WALL	
General Summary		
 <p>This feature is to represent a concrete abutment or retaining wall. The data points collected should represent the top of the leeward face of the abutment or retaining wall. Additional data points will need to be collected for the existing ground at both the bottom and top of the concrete abutment/retaining wall.</p>		
Attributes		
WIDTH	A Numeric Field used to enter the Width of the Abutment or Retaining Wall. Decimals: 2, Units: (FT)	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

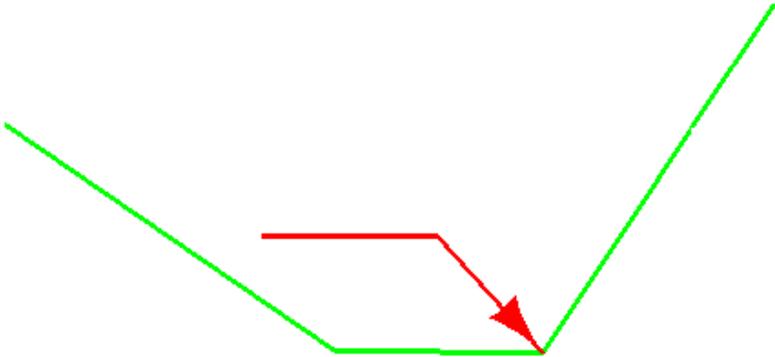
APP		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	APPROACH		
General Summary			
 <p>This feature is to represent an approach. The data point collected should represent the center of the approach at the edge of the Finished Surface.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of Approach being collected. The values are Farm Field, Public, Private, Urban Driveway and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

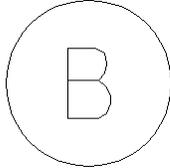
BITCURB		Category	Feature Type
		Road/RR	Line (include in surface)
Description	BITUMINOUS CURB		
General Summary			
			
<p>This feature is to represent a bituminous curb. The data points collected should represent the front (centerline side) of the bituminous curb.</p> <p>Bituminous Curb can be collected in conjunction with guardrail (GRRL), since they should produce the same horizontal line.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

BLDG		Category	Feature Type
		Structure	Line (do not include in surface)
Description	BUILDING BOUNDARY		
General Summary			
<p>This feature is to represent a building boundary. The data points collected should represent the outside edges (walls/corners) of the building. Make sure to include all irregular shapes and enclose the building boundary as an area.</p>			
Attributes			
NAME/ADDRESS	A String Field used to enter the Name, Owner or Address of the building.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

BM	Category	Feature Type
	Survey	Point (do not include in surface)
Description	BENCHMARK	
General Summary		
		
<p>This feature is to represent a benchmark. The data point collected should represent the top center of the mark.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

BOB	Category	Feature Type
	Natural	Line (include in surface)
Description	BOTTOM OF BANK	
General Summary		
<p>This feature is to represent a bottom of bank (natural made slope). The data points collected should represent the lower most break of the bank.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

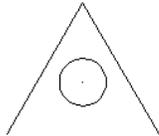
BOD		Category	Feature Type
		Road/RR	Line (include in surface)
Description	BOTTOM OF DITCH		
General Summary			
			
<p>This feature is to represent the bottom of a ditch section. The data points collected should represent the lower most break of the ditch. In the event the ditch is not a V-ditch, the lower most is usually the farthest from centerline; however, this does not alleviate the need to pick up the front break in the ditch section.</p>			
Attributes			
Type	A Menu Field used to select the Type of Ditch Section being collected. The values are Roadway, Drainage, Irrigation and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

BOLLARD		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	BOLLARD		
General Summary			
			
<p>This feature is to represent a bollard or other such barrier. The data point collected should represent the center of the bollard.</p>			
Attributes			
DIAMETER	A Numeric Field used to enter the Diameter of the Bollard. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

BOS	Category	Feature Type
	Road/RR	Line (include in surface)
Description	BOTTOM OF SLOPE	
General Summary		
This feature is to represent a bottom of slope (man-made slope). The data points collected should represent the lower most break of the slope.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

BRCOR	Category	Feature Type
	Structure	Line (do not include in surface)
Description	BRIDGE BOUNDARY	
General Summary		
This feature is to represent a bridge boundary. The data points collected should represent the overall shape of the bridge. Include additional collected points as necessary to completely represent the structure for irregular shapes and for curvature. Make sure to enclose the bridge boundary as an area.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

CATGRD	Category	Feature Type
	Barrier	Line (do not include in surface)
Description	CATTLEGUARD	
General Summary		
 <p>This feature is to represent a cattle guard. The data points collected should represent the outer most edge and center along stationing of the cattle guard grate (see above graphic).</p>		
Attributes		
Length	A Numeric Field used to enter the Length of the Cattleguard. The Length of the Cattleguard is measured with stationing. Decimals: 1, Units (FT)	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

CHEV	Category	Feature Type
	Road/RR	Point (do not include in surface)
Description	SIGN -- CHEVRON	
General Summary		
 <p>This feature is to represent a chevron sign. The data point collected should represent the center of the post.</p>		
Attributes		
TYPE	A Menu Field used to select the Type of Chevron being collected. The values are Dual, Single and other.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

CONC	Category	Feature Type
	Road/RR	Line (include in surface)
Description	CONCRETE	
General Summary		
This feature is to represent the defining point/edge or the angular breakpoint of concrete. The data points collected should represent all horizontal or vertical changes in the concrete feature being defined.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

CORE	Category	Feature Type
	Misc	Point (do not include in surface)
Description	DRILL HOLE	
General Summary		
 <p>CORE HOLE</p>		
This feature is to represent a core/drill hole. The data point collected should represent the center of the hole.		
Attributes		
NAME	A String Field used to enter a Name or associated ID (ie Lab #).	
PHOTO	Optional image of the feature.	

CP	Category	Feature Type
	CONSTRUCTION	Point (include in surface)
Description	CATCH POINT	
General Summary		
This feature is to represent a position on the ground at the intersection of either the top of a cut or toe of fill area with the existing ground.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

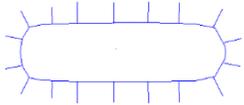
CULVI		Category	Feature Type
		Drainage	Line (do not include in surface)
Description	END OF PIPE/CULV INVERT		
General Summary			
<p>The diagram illustrates a cross-section of a culvert. A central brown line represents the culvert structure, with a peak labeled 'PTW' (centerline of roadway) indicated by a red arrow. Two 'CULVT' (top of culvert/pipe) points are marked with red arrows on the upper slopes. Two 'CULVI' (culvert invert) points are marked with red arrows at the base of the culvert. A horizontal green line represents the invert level. Below the culvert, a horizontal line represents the surrounding surface. Data points for flow lines are indicated by red arrows: 'FL01 BL*' at the left and right edges of the surface, 'FL01 MISCDP' at the inlet and outlet edges, and 'FL01 EL*' at the top of the culvert walls. Labels 'CULVI01 BL* FL01 EL*' and 'CULVI01 EL* FL01 BL*' are placed near the top corners of the culvert structure.</p> <p>This feature is to represent an end of pipe or culvert invert. The data points collected should represent the outer most edge of the pipe. The end section will be collected as a MISCDP shot and by identifying it in the CULVI Attributes.</p> <p>The common data points associated with this feature are: centerline of roadway (PTW), top of culvert/pipe (CULVT), culvert invert (CULVI) and a representation of the surrounding surface of the inlet and outlet. The flow lines (FL) do not connect through the culvert.</p> <p>The number of data points collected for the surrounding surface, is dependent on the type of survey requested and on what is to be done to the culvert during the Construction Phase of the Project.</p> <p>In addition, Hydraulics would like pictures of both the Inlet and Outlet of all culverts.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of Culvert being collected. The values are CMP, HDPE, PVC, RCP, SSPP, CMPA, RCPA, SSPPA, RCB – Single Cell, RCB – Double Cell and other.		
COATING	A Menu Field used to select the type of Coating is on the Culvert being collected. The values are Bituminous and other.		
USAGE	A Menu Field used to select the type of Usage the Culvert has that is being collected. The values are Drainage, Irrigation, Siphon, Stockpass, and other.		
SIZE	A Numeric Field used to enter the Size-Equivalent (diameter) of the Culvert. For a RCB or Arch pipe enter the height and the width in the comment field. Decimals: 0, Units: (in)		
CULVERT END	A Menu Field used to select the type of Culvert End that is at the end of the Culvert being collected. The values are Square, RACET.		

END TREATMENT	A Menu Field used to select the type of End Treatment that is at the end of the Culvert being collected. The values are Cutoff Walls and other.
EDGE PROTECTION	A Menu Field used to select the type of Edge Protection that is at the end of the Culvert being collected. The values are Concrete, Riprap and other.
DAMAGED END	A Menu Field used to select if there is a Damaged End that is at the end of the Culvert being collected, if any. The values are Yes and No.
CLEAN	A Menu Field used to select the type of Cleaning that is needed at the end of the Culvert being collected, if any. The values are 0% Full, 25% Full, 50% Full, 75% Full, 100% Full, Buried, Obstruction and other.
COMMENT	A String Field used to enter general comments.
PHOTO	Optional image of the feature.

CULVT	Category	Feature Type
	Drainage	Point (do not include in surface)
Description	TOP OF CULVERT	
General Summary		
		
<p>This feature is to represent the top of culvert or pipe. The data point collected should represent the top edge of the culvert or pipe, excluding the end section.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

CURB		Category	Feature Type
		Road/RR	Line (include in surface)
Description	TOP BACK OF CURB		
General Summary			
<p>This feature is to represent a curb section. The data points collected should represent the top back of the curb if the curb is back filled (see first and second graphics) and the front face of the curb if there is no back fill (see third graphic).</p> <p>The first and second graphics represent typical curb & gutter and cast-in-place median curb, respectively. The third graphic is representative for pin-down curb (ie parking lot barriers).</p> <p>Other data points may be necessary to fully define this feature.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of Curb being collected. The values are Curb & Gutter, Valley Gutter, Cast-in-Place, Pin-Down, Cut-Off, Standup Curb and other.		
COLOR	A Menu Field used to select the Color of Curb being collected. The values are None, Yellow, Blue and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

DATAPT		Category	Feature Type
		Misc	Point (do not include in surface)
Description	Misc Data Point		
General Summary			
This feature is to represent a miscellaneous data point. The data point collected should represent a feature that is secondary data point.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

DTCHBLK		Category	Feature Type
		Drainage	Point (do not include in surface)
Description	DITCH BLOCK		
General Summary			
			
<p>This feature is to represent a ditch block. The data point collected should represent the top center of the ditch block.</p> <p>Additional grade break information will be necessary to define the ditch block for DTM purposes.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

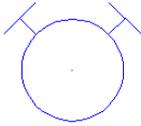
EDGEWAT		Category	Feature Type
		Natural	Line (include in surface)
Description	EDGE OF WATER		
General Summary			
<p>This feature is to represent the edge of water. The data points collected should represent the outer edge of a waterway.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

EOG		Category	Feature Type
		Road/RR	Line (include in surface)
Description	EDGE OF ROAD -- GRAVEL		
General Summary			
<p>This feature is to represent a gravel roadway. The data points collected should represent the outer edges of the gravel roadway.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

EOP	Category	Feature Type
	Road/RR	Line (include in surface)
Description	EDGE OF ROAD -- PAVEMENT	
General Summary		
This feature is to represent a paved roadway. The data points collected should represent the outer edges (top finished surface) of the paved roadway.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

EOT	Category	Feature Type
	Road/RR	Line (include in surface)
Description	EDGE OF ROAD -- TRAIL	
General Summary		
This feature is to represent an un-maintained roadway. The data points collected should represent the outer edges of the un-maintained roadway.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

FENCE		Category	Feature Type
		Barrier	Line (do not include in surface)
Description	FENCE		
General Summary			
<p>The diagram shows a yellow fence line with a gate. Red arrows point to seven numbered data points: 1 (left end), 2 (top left), 3 (top gate left), 4 (top gate right), 5 (top right), 6 (bottom right), and 7 (bottom right end). Labels include FENCE01, GATE01 EL*, GATE01 BL*, FENCE01 BL*, FENCE01, FENCE02 BL*, and FENCE02 EL*.</p>			
<p>This feature is to represent a fence. The data points collected should represent the face of the fence on top of the existing surface. Data points should be collected at center face of posts when encountering changes in direction and fence openings.</p>			
<p>Each new type of fence must have a new feature name and the new attributes for the fence. There must be a space separating the feature name, control code or any other feature code (double coding).</p>			
Attributes			
TYPE	A Menu Field used to select the Type of Fence being collected. The values are Wire, Combo, Chain Link, Misc and other.		
WIRE TYPE	A Menu Field used to select the Wire Type of the Fence being collected. The values are Barbed Wire, Smooth Wire and other.		
POST	A Menu Field used to select the Post type of Fence being collected. The values are Wood Post, Metal Post and other.		
HEIGHT	A Numeric Field used to enter the Height of the Fence. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

FH		Category	Feature Type
		Utility	Point (do not include in surface)
Description	FIRE HYDRANT		
General Summary			
			
<p>This feature is to represent a fire hydrant. The data point collected should represent the center of the fire hydrant at the existing surface.</p>			
Attributes			
DIAMETER	A Numeric Field used to enter the Diameter at the base of the Fire Hydrant. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

FIBERU		Category	Feature Type
		Utility	Line (do not include in surface)
Description	FIBER-OPTIC CABLE -- UNDERGROUND		
General Summary			
<p>This feature is to represent an underground fiber optic cable. The data points collected should represent the painted/flagged marks located on the existing surface.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

FIBERX		Category	Feature Type
		Utility	Line (do not include in surface)
Description	FIBER-OPTIC CABLE -- OVERHEAD		
General Summary			
<p>This feature is to represent an overhead fiber optic cable. The data points collected should represent the center of the fiber optic cable. Actual elevations are required for the overhead fiber optic cable.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

FL	Category	Feature Type
	Natural	Line (include in surface)
Description	FLOWLINE -- WITH FLOW	
General Summary		
This feature is to represent a flow line. The data points collected should represent the lowest point in the flow area and should be collected in the direction of flow.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

FLU	Category	Feature Type
	Natural	Line (include in surface)
Description	FLOWLINE -- AGAINST FLOW	
General Summary		
This feature is to represent a flow line. The data points collected should represent the lowest point in the flow area and should be collected against the direction of flow.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

GAS	Category	Feature Type
	Utility	Line (do not include in surface)
Description	GAS LINE -- UNDERGROUND	
General Summary		
This feature is to represent an underground gas line. The data points collected should represent the painted/flagged marks located on the existing surface.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

GASM		Category	Feature Type
		Utility	Point (do not include in surface)
Description	GAS METER		
General Summary			
			
This feature is to represent a gas meter. The data point collected should represent the center of the gas meter.			
Attributes			
PIPE DIAMETER	A Numeric Field used to enter the Pipe Diameter of the Gas Meter. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

GASV		Category	Feature Type
		Utility	Point (do not include in surface)
Description	GAS VALVE		
General Summary			
			
This feature is to represent a gas valve. The data point collected should represent the center of the gas valve.			
Attributes			
TYPE	A Menu Field used to select the Type of the Gas Valve being collected. The values are Above Ground and Below Ground.		
PIPE DIAMETER	A Numeric Field used to enter the Pipe Diameter of the Gas Valve. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

GATE		Category	Feature Type
		Barrier	Line (do not include in surface)
Description	GATE		
General Summary			
This feature is to represent a fence gate. The data points collected should represent the opening of the gate (i.e. center face of fence post).			
Attributes			
TYPE	A Menu Field used to select the Type of the Gate being collected. The values are Wood, Wire, Metal, Chain Link and Other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

GB		Category	Feature Type
		Natural	Line (include in surface)
Description	BREAKLINE/GRADE BREAK		
General Summary			
This feature is to represent a generic breakline or grade break. The data points collected should represent the break.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

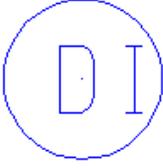
GRND		Category	Feature Type
		Natural	Point (include in surface)
Description	GROUND SHOT/MASS POINT		
General Summary			
			
This feature is to represent a random ground shot or mass point. The data point collected should represent the center of the mass.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

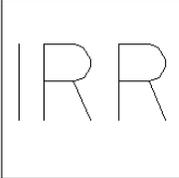
GRRL		Category	Feature Type
		Barrier	Line (do not include in surface)
Description	GUARDRAIL		
General Summary			
<p>This feature is to represent guardrail. The data points collected should represent the face of the guardrail at existing surface level. Data points should be collected at post locations to best represent angle points in the guardrail.</p> <p>The end sections are just an extension of the guardrail; therefore, the data points shall be included in the run of guardrail for collection purposes.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Guardrail being collected. The values are W-Beam, Cable, Box Beam and other.		
HEIGHT	A Numeric Field used to enter the Height of the Guardrail. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

GUYWIRE		Category	Feature Type
		Utility	Line (do not include in surface)
Description	GUY WIRE ANCHOR		
General Summary			
<p>This feature is to represent a guy wire. The data points collected should represent the center of the wire and should be collected with the ground anchor first and the pole connection second. Actual elevations are required for the overhead portion of the guy wire.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

HIWATER		Category	Feature Type
		Natural	Point (do not include in surface)
Description	HIGH WATER MARK		
General Summary			
			
<p>This feature is to represent a high water mark. The data point collected should represent the upper most part of the watermark.</p>			
Attributes			
WHEN	A String Field used to enter When the high water occurred.		
WHO	A String Field used to enter Who gave the high water occurrence information.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

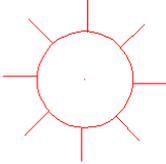
INLET		Category	Feature Type
		Drainage	Point (do not include in surface)
Description	INLET -- SQUARE TOP		
General Summary			
			
<p>This feature is to represent a square top inlet. The data point collected should represent the center of the inlet cover/grate. Additional information will be needed to define the concrete perimeter.</p> <p>An Inlet can be in conjunction with a manhole; therefore, two data points may need to be collected, one for the Inlet and one for the Manhole (ie MHSD).</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Inlet being collected. The values are Curb Inlet, Drop Inlet, Median Inlet and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

INLETR		Category	Feature Type
		Drainage	Point (do not include in surface)
Description	INLET -- ROUND TOP		
General Summary			
			
<p>This feature is to represent a round top inlet. The data point collected should represent the center of the inlet cover/grate. Additional information will be needed to define the concrete perimeter.</p> <p>An Inlet can be in conjunction with a manhole; therefore, two data points may need to be collected, one for the Inlet and one for the Manhole (ie MHSD).</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Inlet being collected. The values are Drop Inlet and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

IRR		Category	Feature Type
		Drainage	Point (do not include in surface)
Description	IRRIGATION FEATURE		
General Summary			
			
<p>This feature is to represent an irrigation structure. The data point collected should represent the top center of the irrigation structure. Additional information will be needed to define the concrete perimeter.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Irrigation Feature being collected. The values are Screw Gate, Slide Gate, Check Structure, Turnout, Diversion Structure, Division Box, Drop Structure Pivot and other. See Irrigation Type Manual for Descriptions and Images.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

ISLAND		Category	Feature Type
		Misc	Line (include in surface)
Description	DTM ISLAND		
General Summary			
<p>This feature is to represent a DTM island boundary. A DTM island is an area that contains data on the inside of the boundary and not on the outside. Can be used inside an obscure area.</p> <p>The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the DTM island boundary as an area. Multiple boundaries may be utilized in one project, if the areas to be collected are not adjacent to one another.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

JRRL		Category	Feature Type
		Barrier	Line (do not include in surface)
Description	JERSEY RAIL		
General Summary			
 <p>This feature is to represent Jersey rail. The data points collected should represent one face of the Jersey rail at the existing surface level.</p> <p>The transition section is used to taper from standard to tall types of Jersey rail as well as to other types of connections. The transition section will need two data points, one for each end.</p> <p>For design purposes, this feature is non-symmetrical; therefore, make sure to collect data points for the same face of rail or transpose the appropriate line strings so that they go in the same direction.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Jersey Rail being collected. The values are Portable, Cast-in-Place and other.		
HEIGHT	A Menu Field used to select the Height of the Jersey Rail being collected. The values are Standard, Tall and other.		
END SECTION	A Menu Field used to select the End Section of the Jersey Rail being collected. The values are Impact Attenuator, Tapered End, Transition Section and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

LIGHT		Category	Feature Type
		Utility	Point (do not include in surface)
Description	LIGHT POLE		
General Summary			
			
<p>This feature is to represent a light pole. The data point collected should represent the center of the light pole.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

LOWBEAM		Category	Feature Type
		Structure	Point (do not include in surface)
Description	LOW BEAM		
General Summary			
<p>This feature is to represent the low beam elevation of a structure.</p> <p>There may be numerous data points for the low beam on any given structure. Low beam data points should be collected for, but not limited to, the following locations: in close proximity to the centerline of PTW or individual RR rails; waterway crossings; multi-level or curved structures (both horizontal & vertical).</p> <p>If uncertain if a beam is on grade or if in a curved or spiraled section, collect data points near each end of each beam.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MAIL		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	MAILBOX		
General Summary			
			
<p>This feature is to represent a mailbox. The data point collected should represent the center of the post for a single-post or the center of the conglomeration of mailboxes for a multi-post.</p>			
Attributes			
COUNT	A Numeric Field used to enter the Count (the number) of mailboxes. Decimals: 0,		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

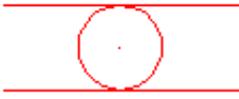
MH	Category	Feature Type
	Utility	Point (do not include in surface)
Description	MANHOLE -- MISC	
General Summary		
		
<p>This feature is to represent a generic manhole. The data point collected should represent the top center of the manhole lid or opening.</p>		
Attributes		
TYPE	A Menu Field used to select the Type of the Manhole being collected. The values are Type 1 (cone), Type 3 (straight) and other.	
DEPTH	A Numeric Field used to enter the Depth of the Manhole (top of grate/lid to bottom). Decimals: 2, Units: (FT)	
DIAMETER	A Numeric Field used to enter the inside Diameter of the Manhole barrel. Decimals: 2, Units: (FT)	
OFFSET	A Menu Field used to select the offset of the center of the manhole as compared to the lid. The values are Center (no offset), North, South, East and West.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

MHELEC		Category	Feature Type
		Utility	Point (do not include in surface)
Description	MANHOLE -- ELECTRICAL		
General Summary			
			
<p>This feature is to represent an electrical manhole. The data point collected should represent the top center of the manhole lid or opening.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Manhole being collected. The values are Type 1 (cone), Type 3 (straight) and other.		
DEPTH	A Numeric Field used to enter the Depth of the Manhole (top of grate/lid to bottom). Decimals: 2, Units: (FT)		
DIAMETER	A Numeric Field used to enter the inside Diameter of the Manhole barrel. Decimals: 2, Units: (FT)		
OFFSET	A Menu Field used to select the offset of the center of the manhole as compared to the lid. The values are Center (no offset), North, South, East and West.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MHSD		Category	Feature Type
		Utility	Point (do not include in surface)
Description	MANHOLE -- STORM DRAIN		
General Summary			
			
<p>This feature is to represent a storm drain manhole. The data point collected should represent the top center of the manhole lid or opening.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Manhole being collected. The values are Type 1 (cone), Type 3 (straight) and other.		
DEPTH	A Numeric Field used to enter the Depth of the Manhole (top of grate/lid to bottom). Decimals: 2, Units: (FT)		
DIAMETER	A Numeric Field used to enter the inside Diameter of the Manhole barrel. Decimals: 2, Units: (FT)		
OFFSET	A Menu Field used to select the offset of the center of the manhole as compared to the lid. The values are Center (no offset), North, South, East and West.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MHSS		Category	Feature Type
		Utility	Point (do not include in surface)
Description	MANHOLE -- SANITARY SEWER		
General Summary			
			
<p>This feature is to represent a sanitary sewer manhole. The data point collected should represent the top center of the manhole lid or opening.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Manhole being collected. The values are Type 1 (cone), Type 3 (straight) and other.		
DEPTH	A Numeric Field used to enter the Depth of the Manhole (top of grate/lid to bottom). Decimals: 2, Units: (FT)		
DIAMETER	A Numeric Field used to enter the inside Diameter of the Manhole barrel. Decimals: 2, Units: (FT)		
OFFSET	A Menu Field used to select the offset of the center of the manhole as compared to the lid. The values are Center (no offset), North, South, East and West.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MHTEL		Category	Feature Type
		Utility	Point (do not include in surface)
Description	MANHOLE -- TELEPHONE		
General Summary			
<div data-bbox="266 373 431 533" style="text-align: center;">  </div> <p data-bbox="253 569 1406 636">This feature is to represent a telephone manhole. The data point collected should represent the top center of the manhole lid or opening.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Manhole being collected. The values are Type 1 (cone), Type 3 (straight) and other.		
DEPTH	A Numeric Field used to enter the Depth of the Manhole (top of grate/lid to bottom). Decimals: 2, Units: (FT)		
DIAMETER	A Numeric Field used to enter the inside Diameter of the Manhole barrel. Decimals: 2, Units: (FT)		
OFFSET	A Menu Field used to select the offset of the center of the manhole as compared to the lid. The values are Center (no offset), North, South, East and West.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MILEP		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	MILE POST		
General Summary			
			
This feature is to represent a milepost sign. The data point collected should represent the center of the pole.			
Attributes			
TYPE	A Menu Field used to select the Type of the Mile Post being collected. The values are single, double and other.		
TEXT	A Numeric Field used to enter the numerical mile value.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MISCAB		Category	Feature Type
		Utility	Line (do not include in surface)
Description	MISSILE CABLE		
General Summary			
This feature is to represent a missile cable. The data points collected should represent the painted/flagged marks located on the existing surface.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

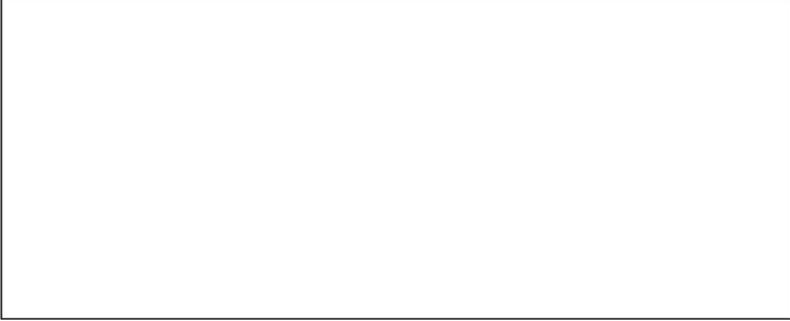
MISCDL		Category	Feature Type
		Misc	Line (include in surface)
Description	MISC DTM LINE		
General Summary			
This feature is to represent a generic DTM feature. The data points collected should represent the break.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MISCDP		Category	Feature Type
		Misc	Point (include in surface)
Description	MISC DTM POINT		
General Summary			
			
<p>This feature is to represent a generic DTM point. The data point collected should represent the center of the mass.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

MISCL		Category	Feature Type
		Misc	Line (do not include in surface)
Description	MISC NON-DTM LINE		
General Summary			
<p>This feature is to represent a generic non-DTM feature. The data points collected should represent the break.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

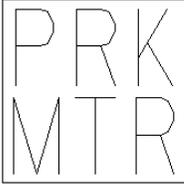
MISCP		Category	Feature Type
		Misc	Point (do not include in surface)
Description	MISC NON-DTM POINT		
General Summary			
			
<p>This feature is to represent a generic non-DTM point. The data point collected should represent the center of the mass.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

OBSCURE		Category	Feature Type
		Misc	Line (include in surface)
Description	DTM OBSCURE AREA		
General Summary			
<p>This feature is to represent a DTM obscure boundary. A DTM obscure area (void) is an area that contains data on the outside of the boundary, but not on the inside.</p> <p>The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the DTM obscure boundary as an area. Multiple boundaries may be utilized in one project if the areas to be collected are not adjacent to one another.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PEDBASE		Category	Feature Type
		Utility	Line (do not include in surface)
Description	PEDESTAL BASE		
General Summary			
			
<p>This feature is to represent a pedestal base or any other base that needs to be collected (ie Light or Signal Poles). The data points collected should represent the outer edge of the pedestal base. Make sure to enclose the pedestal base as an area.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Base being collected. The values are Electrical, Telephone, Traffic, Pole and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PEDXING		Category	Feature Type
		Utility	Point (do not include in surface)
Description	PEDESTRIAN CROSSING		
General Summary			
			
<p>This feature is to represent a pedestrian crossing. The data point collected should represent the center of the pole/post.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Pedestal Base being collected. The values are Push Button, Signal Head, Both and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PM		Category	Feature Type
		Survey	Point (do not include in surface)
Description	PROJECT MARKER		
General Summary			
			
<p>This feature is to represent a project marker. The data point collected should represent the top center of the marker.</p>			
Attributes			
TEXT	A String Field used to enter the Project Marker information.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PRKMETER		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	PARKING METER		
General Summary			
			
<p>This feature is to represent a parking meter. The data point collected should represent the center of the post.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PTW		Category	Feature Type
		Road/RR	Line (include in surface)
Description	PTW -- CENTERLINE		
General Summary			
This feature is to represent the centerline of the PTW. The data points collected should represent the break located at or near the centerline.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PULLBOX		Category	Feature Type
		Utility	Point (do not include in surface)
Description	SERVICE PULL-BOX		
General Summary			
			
This feature is to represent a service pull box. The data point collected should represent the top center of the pull box lid.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PVTMARK		Category	Feature Type
		Road/RR	Line (include in surface)
Description	PAVEMENT MARKINGS		
General Summary			
This feature is to represent the pavement striping. The striping data points collected should represent the center of the stripe.			
Attributes			
WIDTH	A Numeric Field used to enter the Width of the Striping. The values are 4", 6", 8", 12" and 24".		
COLOR	A Menu Field used to select the Color of the Pavement Marking being collected. The values are White, Yellow and other.		
STRIPING	A Menu Field used to select the Striping type of the Pavement Marking being collected. The values are Skip, Solid, Crosswalk, Stop Bar, Diagonal, Chevron and other.		
MATL TYPE	A Menu Field used to select the Matl Type of the Pavement Marking being collected. The values are Paint, Tape, Inlaid and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PVTSYM		Category	Feature Type
		Road/RR	Point (include in surface)
Description	PAVEMENT SYMBOL		
General Summary			
<div data-bbox="256 352 451 506" data-label="Image"> </div> <p data-bbox="256 527 1516 594">This feature is to represent pavement markings. The striping data points collected should represent the center of the symbol.</p>			
Attributes			
COLOR	A Menu Field used to select the Color of the Pavement Marking being collected. The values are White, Yellow, Blue and other.		
SYMBOL	A Menu Field used to select the Symbol of the Pavement Marking being collected. The values are Left Turn Arrow, Right Turn Arrow, Straight Arrow, Combination (LT-Straight), Combination (RT-Straight), Railroad Crossing, Bike Lane, Handicapped, Sharrow (Shared Use), Directional Arrow, Ramp Arrow, Lane Reduction Arrow, Yield Triangle, Speed Hump, Preferential Lane and Other.		
TEXT	A Menu Field used to select the Text of the Pavement Marking being collected. The values are Only, Left, Right, Lane, Turn, Stop, Ahead, School, Bus and Other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

PWRPED	Category	Feature Type
	Utility	Point (do not include in surface)
Description	POWER PEDESTAL	
General Summary		
		
<p>This feature is to represent a power pedestal. The data point collected should represent the center of the power pedestal.</p>		
Attributes		
TYPE	A Menu Field used to select the Type of the Power Pedestal being collected. The values are Pole Mount, Ground Mount and other.	
BOX NUMBER	A String Field used to enter the Box Number found on the Power Pedestal.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

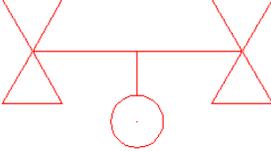
PWRU	Category	Feature Type
	Utility	Line (do not include in surface)
Description	POWER LINE -- UNDERGROUND	
General Summary		
<p>This feature is to represent an underground power cable. The data points collected should represent the painted/flagged marks located on the existing surface.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

PWRX		Category	Feature Type
		Utility	Line (do not include in surface)
Description	POWER LINE -- OVERHEAD		
General Summary			
<p>When collecting data points for a power line (or similar) crossing, collect the data points as indicated in the above graphic. This feature is to represent an overhead power cable. The data points collected should represent the center of the power cable. Actual elevations are required for the overhead power line.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the first (lowest) Overhead Utility being collected. The values are Unknown, Cable TV, Fiber Optic, Power and Telephone.		
NUMBER OF WIRES	A Numeric Field used to enter the number of wires on the pole.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

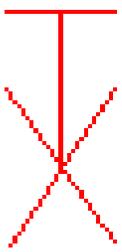
RIPRAP		Category	Feature Type
		Drainage	Line (include in surface)
Description	RIPRAP BOUNDARY		
General Summary			
This feature is to represent a riprap boundary. The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the riprap boundary as an area.			
Attributes			
TYPE	A Menu Field used to select the Type of the Riprap being collected. The values are Random, Handlaid, Grouted, Gabion and other.		
CLASS	A Menu Field used to select the Class of the Riprap being collected. The values are Class I, Class II, Class III and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

RP		Category	Feature Type
		CONSTRUCTION	Point (do not include in surface)
Description	REFERENCE POINT		
General Summary			
This feature is to represent a point that references another point at a certain distance.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

RRCL		Category	Feature Type
		Road/RR	Line (do not include in surface)
Description	RR CENTERLINE		
General Summary			
This feature is to represent the centerline of the railway/rail road. The data points collected should represent the center of the tracks of the railway/rail road.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

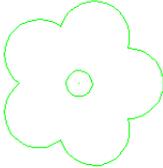
RRCRL		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	RR CROSSING LIGHT		
General Summary			
			
<p>This feature is to represent a railroad crossing light. The data point collected should represent the center of the pole.</p>			
Attributes			
CROSS ARM	A Menu Field used to select if there is a Cross Arm attached to the Crossing Light being collected. The values are Yes and No.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

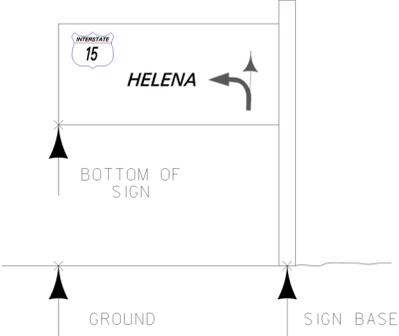
RRRAIL		Category	Feature Type
		Road/RR	Line (do not include in surface)
Description	RR RAIL - TOP		
General Summary			
<p>This feature is to represent the rail of the railway/rail road. The data points collected should represent the top center of each track of the railway/rail road.</p> <p>This feature is only necessary where it crosses under an existing structure and at a minimum shall consist of three evenly spaced data points (approximately 30 feet apart) on each side of and one directly underneath the structure for a total of seven data points per rail.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

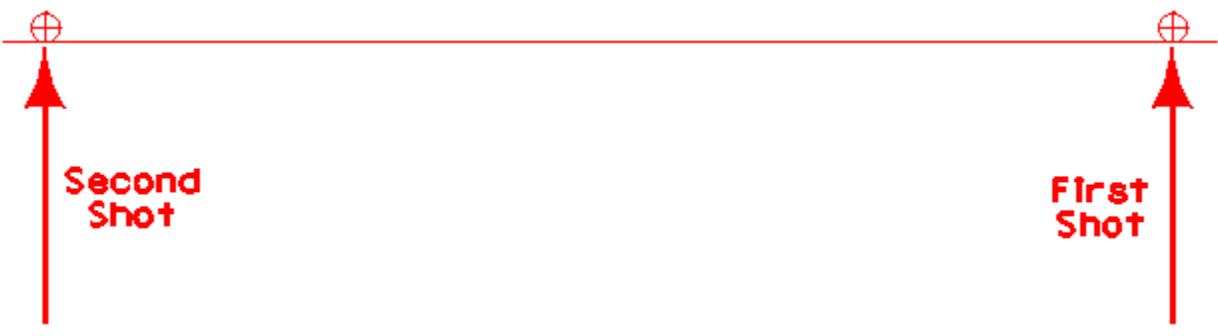
RRSW		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	RR SWITCH		
General Summary			
			
<p>This feature is to represent a railroad switch. The data point collected should represent the center of the switch mechanism.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

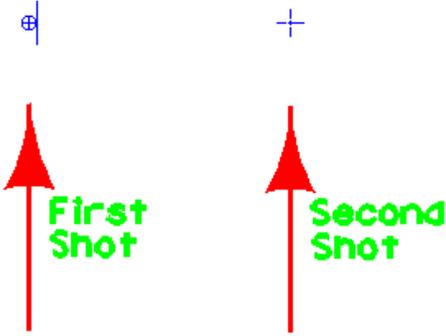
SANSEW		Category	Feature Type
		Utility	Point (do not include in surface)
Description	SANITARY SEWER LINE		
General Summary			
<p>This feature is to represent an underground sanitary sewer line. The data points collected should represent the invert elevations at all locations accessible through manholes, inlets, etc.</p>			
Attributes			
SIZE	A Numeric Field used to enter the inside Size (diameter) of the Lateral or Trunk Lines as measured at a manhole or inlet. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

SHLD		Category	Feature Type
		Road/RR	Line (include in surface)
Description	SHOULDER		
General Summary			
This feature is to represent the shoulder of the roadway section. The data points collected should represent the break defined by the shoulder.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

SHRUB		Category	Feature Type
		Natural	Point (do not include in surface)
Description	SHRUB		
General Summary			
 <p>This feature is to represent a shrub. The data point collected should represent the center of the shrub.</p>			
Attributes			
COMMENT	A String field used to enter general comments.		
PHOTO	Optional image of the feature.		

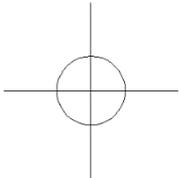
SIGNC		Category	Feature Type
		Road/RR	Line (do not include in surface)
Description	SIGN -- CANTILEVER		
General Summary			
<div style="text-align: center;">  <p>The diagram illustrates a cantilever sign. A vertical signpost is mounted on a 'SIGN BASE' on the ground. The sign is a rectangular sign with a 'HELENA' signpost and a directional arrow. A 'BOTTOM OF SIGN' point is marked on the sign. A 'GROUND' point is marked on the surface level.</p> </div> <p>This feature is to represent a cantilever or overhead sign. The data points collected should represent the center of signpost, existing surface level, and the bottom of sign.</p> <p>When collecting data points for a cantilever sign, collect the data points as indicated in the above graphic.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Cantilever Sign being collected. The values are Guide, Regulatory, Warning and other.		
TEXT	A String Field used to enter the sign Text .		
POST	A Menu Field used to select the Post type of the Cantilever Sign being collected. The values are Metal, Wood, Pole Mount and other.		
POST SIZE	A Numeric Field used to enter the Post Size of the Post. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

SIGNM		Category	Feature Type
		Road/RR	Line (do not include in surface)
Description	SIGN -- MULTI-POST		
General Summary			
 <p>This feature is to represent a multi-post sign. The data points collected should represent the center of each signpost.</p> <p>Multi-post signs shall be collected in a right to left manner when facing the sign (ie able to read the sign text). See above graphic.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Multi-post Sign being collected. The values are Guide, Regulatory, Warning and other.		
TEXT	A String Field used to enter the sign Text .		
POST	A Menu Field used to select the Post type of the Multi-post Sign being collected. The values are Metal, Wood, Pole Mount and other.		
POST SIZE	A Numeric Field used to enter the Post Size of the Post. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

SIGNS		Category	Feature Type
		Road/RR	Line (do not include in surface)
Description		SIGN -- SINGLE-POST	
General Summary			
 <p>This feature is to represent a single-post sign. The data points collected should represent first, the location of the center of the sign post and second, the direction the sign is facing. The second (directional “SIGNS” point) can be as easy as taking one pace in the direction away from the sign face. See above graphic.</p> <p>The second data point should use the Feature Code SIGNS.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Single-post Sign being collected. The values are Guide, Regulatory, Warning and other.		
TEXT	A String Field used to enter the sign Text .		
POST	A Menu Field used to select the Post type of the Single-post Sign being collected. The values are Metal, Wood, Pole Mount and other.		
POST SIZE	A Numeric Field used to enter the Post Size of the Post relative to the type of Post. Decimals: 0, Units: (in)		
BREAK-AWAY	A Menu Field used to select if there is a Break-Away on the Sign being collected, if any. The values are Yes and No.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

SM	Category	Feature Type
	Survey	Point (do not include in surface)
Description	STATION MARKER	
General Summary		
		
<p>This feature is to represent a station marker. The data point collected should represent the top center of the station marker.</p>		
Attributes		
TEXT	A String Field used to enter the Station Marker information.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

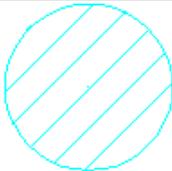
SNOWF	Category	Feature Type
	Barrier	Line (do not include in surface)
Description	SNOW FENCE	
General Summary		
<p>This feature is to represent a snow fence. The data points collected should represent the face of the fence on top of the existing surface. Data points should be collected at center face of posts when collecting changes in direction.</p>		
Attributes		
TYPE	A Menu Field used to select the Type of the Snow Fence being collected. The values are Plastic, Slatted, Wood and other.	
HEIGHT	A Numeric Field used to enter the Height of the Snow Fence. Decimals: 0, Units: (in)	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

STID		Category	Feature Type
		Road/RR	Point (do not include in surface)
Description	SIGN -- STREET ID		
General Summary			
			
<p>This feature is to represent a street ID sign. The data point collected should represent the center of the post.</p>			
Attributes			
TEXT	A String Field used to enter replaceable Text .		
MOUNT TYPE	A Menu Field used to select the Mount Type of the Street ID Sign being collected. The values are Ground, Overhead and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

STRMDR		Category	Feature Type
		Utility	Line (do not include in surface)
Description	STORM DRAIN LINE		
General Summary			
<p>This feature is to represent an underground storm drain line. The data points collected should represent the invert elevations at all locations accessible through manholes, inlets, etc.</p>			
Attributes			
SIZE	A Numeric Field used to enter the inside Size (diameter) of the Lateral or Trunk Lines as measured at a manhole or inlet. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

SURV	Category	Feature Type
	Survey	Point (do not include in surface)
Description	SURVEY MONUMENT	
General Summary		
		
<p>This feature is to represent a generic survey monument. The data point collected should represent the center of the punch mark if one exists or the center of the monument if not.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

SW	Category	Feature Type
	Road/RR	Line (include in surface)
Description	SIDEWALK	
General Summary		
<p>This feature is to represent the top edge of a concrete sidewalk. The data points collected should represent the top edge of the concrete.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

TANK	Category	Feature Type
	Structure	Point (do not include in surface)
Description	STORAGE TANK -- ROUND	
General Summary		
		
<p>This feature is to represent a round storage tank. The data point collected should represent the center of the tank.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

TANKSH	Category	Feature Type
	Structure	Line (do not include in surface)
Description	STORAGE TANK -- SHAPE	
General Summary		
This feature is to represent a storage tank shape. The data points collected should represent the outer most edge of the tank. Make sure to enclose the tank shape as an area.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

TELPED	Category	Feature Type
	Utility	Point (do not include in surface)
Description	TELEPHONE PEDESTAL	
General Summary		
		
This feature is to represent a telephone pedestal. The data point collected should represent the center of the pedestal.		
Attributes		
TYPE	A Menu Field used to select the Type of the Telephone Pedestal being collected. The values are Pole Mount, Ground Mount and other.	
BOX NUMBER	A String Field used to enter the Box Number found on the Telephone Pedestal.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

TELU	Category	Feature Type
	Utility	Line (do not include in surface)
Description	TELEPHONE LINE -- UNDERGROUND	
General Summary		
This feature is to represent an underground telephone line. The data points collected should represent the painted/flagged marks located on the existing surface.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

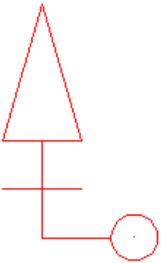
TELX	Category	Feature Type
	Utility	Line (do not include in surface)
Description	TELEPHONE LINE -- OVERHEAD	
General Summary		
This feature is to represent an overhead telephone line. The data points collected should represent the center of the telephone line. Actual elevations are required for the overhead telephone line.		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

THALWEG	Category	Feature Type
	Natural	Line (include in surface)
Description	THALWEG OF WATERWAY	
General Summary		
This feature is to represent the thalweg of a waterway. The data points collected should represent the lowest point of the waterway.		
Attributes		
WATERWAY NAME	A String Field used to enter the Waterway Name given to the waterway being collected.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

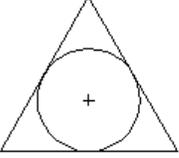
TOB		Category	Feature Type
		Natural	Line (include in surface)
Description	TOP OF BANK		
General Summary			
This feature is to represent a top of bank (natural made slope). The data points collected should represent the upper most break of the bank.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TOS		Category	Feature Type
		Road/RR	Line (include in surface)
Description	TOP OF SLOPE		
General Summary			
This feature is to represent a top of slope (man-made slope). The data points collected should represent the upper most break of the slope.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

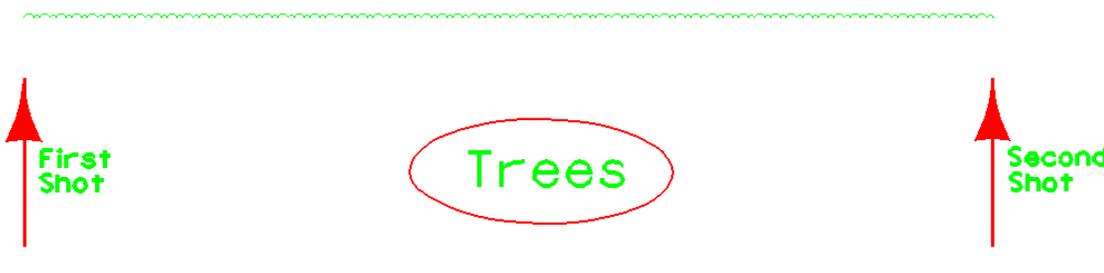
TOWER		Category	Feature Type
		Utility	Point (do not include in surface)
Description	TOWER FEATURE		
General Summary			
 <p>This feature is to represent a tower feature. The data point collected should represent the center of the tower.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Tower Feature being collected. The values are Communication, Radio, Television and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TRAF		Category	Feature Type
		Utility	Point (do not include in surface)
Description	TRAFFIC SIGNAL		
General Summary			
			
<p>This feature is to represent a traffic signal/light. The data point collected should represent the center of the pole.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TRAFBOX		Category	Feature Type
		Utility	Point (do not include in surface)
Description	TRAFFIC/SIGNAL CONTROLLER BOX		
General Summary			
			
<p>This feature is to represent a traffic/signal controller box. The data point collected should represent the center of the box.</p>			
Attributes			
BOX NUMBER	A String Field used to enter the Box Number found on the Traffic Signal/Controller Box.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TRAV		Category	Feature Type
		Survey	Point (do not include in surface)
Description	TRAVERSE MARKER		
General Summary			
 <p>This feature is to represent a traverse (control) point. The data point collected should represent the center of the punch mark of the marker.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TREE		Category	Feature Type
		Natural	Point (do not include in surface)
Description	TREE		
General Summary			
 <p>This feature is to represent a tree. The data point collected should represent the center of the tree.</p>			
Attributes			
SPECIES	A Menu Field used to select the Species of the Tree being collected. The values are deciduous and evergreen.		
TOTAL HEIGHT	A Numeric Field used to enter the Total Height of the Tree. Decimals: 0, Units: (FT)		
TRUNK DIAMETER	A Numeric Field used to enter the Trunk Diameter of the Tree. Decimals: 1, Units: (FT)		
CANOPY RADIUS	A Numeric Field used to enter the Canopy Radius of the Tree. Decimals: 0, Units: (FT)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

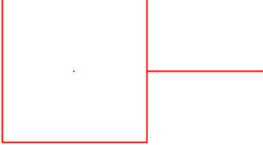
TREELN		Category	Feature Type
		Natural	Line (do not include in surface)
Description	TREE LINE -- BOUNDARY		
General Summary			
 <p>This feature is to represent a tree line boundary. The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the tree line boundary as an area if applicable. See above graphic.</p> <p>Note that the line is non-symmetrical; therefore, the data points will need to be collected so that trees are enclosed on the appropriate side of the line. See above graphic.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TREEROW		Category	Feature Type
		Natural	Line (do not include in surface)
Description	TREE -- ROW		
General Summary			
This feature is to represent a tree row. The data points collected should represent the center of the tree row.			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

TRNSTWR	Category	Feature Type
	Utility	Point (do not include in surface)
Description	TRANSMISSION TOWER	
General Summary		
 <p>This feature is to represent a transmission tower. The data point collected should represent the center of the tower.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

TVU	Category	Feature Type
	Utility	Line (do not include in surface)
Description	CABLE TV -- UNDERGROUND	
General Summary		
<p>This feature is to represent an underground cable TV. The data points collected should represent the painted/flagged marks located on the existing surface.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

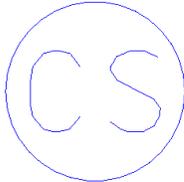
UHS	Category	Feature Type
	Misc	Line (do not include in surface)
Description	UNDERGROUND HAZARD SITE	
General Summary		
<p>This feature is to represent an underground hazard site. The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the underground hazard site as an area if applicable.</p>		
Attributes		
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

UT	Category	Feature Type
	Utility	Point (do not include in surface)
Description	UTILITY POLE	
General Summary		
 <p>This feature is to represent all utility poles. The data point collected should represent the center of the pole.</p>		
Attributes		
TYPE	A Menu Field used to select the Type of the Utility Pole being collected. The values are Wood, Steel, Laminated, Fiberglass and other.	
POLE NUMBER	A String Field used to enter the Pole Number found on the Utility Pole.	
UG DROP	A Menu Field used to select if there is an Underground Drop on the Power Pole being collected, if any. The values are Yes and No.	
COMMENT	A String Field used to enter general comments.	
PHOTO	Optional image of the feature.	

VALVE		Category	Feature Type
		Utility	Point (do not include in surface)
Description	VALVE -- MISC		
General Summary			
			
<p>This feature is to represent a generic valve. The data point collected should represent the center of the valve.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Valve being collected. The values are Above Ground and Below Ground.		
PIPE DIAMETER	A Numeric Field used to enter the Pipe Diameter of the Valve. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

VEG		Category	Feature Type
		Natural	Line (do not include in surface)
Description	VEGETATION BOUNDARY		
General Summary			
<p>This feature is to represent a vegetation boundary. The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the vegetation boundary as an area if applicable.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WALL		Category	Feature Type
		Structure	Line (do not include in surface)
Description	WALL -- FREE STANDING		
General Summary			
<p>This feature is to represent a freestanding wall. The data points collected should represent the bottom of the freestanding wall.</p> <p>In some situations, an actual elevation may be desirable for the top of the wall.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Wall being collected. The values are Concrete, Wood, Metal and Other.		
HEIGHT	A Numeric Field used to enter the Height of the Wall. Decimals: 0, Units: (FT)		
WIDTH	A Numeric Field used to enter the Width of the Wall. Decimals: 0, Units: (FT)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

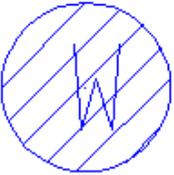
WATCS		Category	Feature Type
		Utility	Point (do not include in surface)
Description	WATER CURB STOP		
General Summary			
			
<p>This feature is to represent a water curb stop. The data point collected should represent the center of the water curb stop.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WATER		Category	Feature Type
		Utility	Line (do not include in surface)
Description	WATER LINE -- UNDERGROUND		
General Summary			
<p>This feature is to represent an underground water line. The data points collected should represent the painted/flagged marks located on the existing surface.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Water Line being collected. The values are Main, Service Line and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WATHYD		Category	Feature Type
		Utility	Point (do not include in surface)
Description	WATER HYDRANT		
General Summary			
			
<p>This feature is to represent a water hydrant. The data point collected should represent the center of the water hydrant.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Water Hydrant being collected. The values are Yard, Draft and other.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WATM		Category	Feature Type
		Utility	Point (do not include in surface)
Description	WATER METER		
General Summary			
			
<p>This feature is to represent a water meter. The data point collected should represent the center of the water meter.</p>			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WATV		Category	Feature Type
		Utility	Point (do not include in surface)
Description	WATER VALVE		
General Summary			
			
<p>This feature is to represent a water valve. The data point collected should represent the center of the water valve.</p>			
Attributes			
TYPE	A Menu Field used to select the Type of the Water Valve being collected. The values are Above Ground and Below Ground.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WELL		Category	Feature Type
		Utility	Point (do not include in surface)
Description	WELL		
General Summary			
			
<p>This feature is to represent a well. The data point collected should represent the center of the well.</p>			
Attributes			
DIAMETER	A Numeric Field used to enter the Diameter of the Well. Decimals: 0, Units: (in)		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

WETLB		Category	Feature Type
		Natural	Line (include in surface)
Description	WETLAND BOUNDARY		
General Summary			
This feature is to represent a wetland boundary. The data points collected should represent the outer most data points of the area being collected. Make sure to enclose the wetland boundary as an area if applicable.			
Attributes			
NAME	A String Field used to enter the Name or Class given to the Wetland Boundary.		
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		

XSECT		Category	Feature Type
		Misc	Line (do not include in surface)
Description	CROSS-SECTION LINE		
General Summary			
This feature is to represent a generic cross section line. The data points collected should represent the best possible straight line perpendicular to the base line.			
For the purpose of Hydraulic X-Sections, the actual Feature Codes for the breaklines that are crossed should be used (ie TOB, BOB, EDGEWAT, THALWEG, etc)			
Attributes			
COMMENT	A String Field used to enter general comments.		
PHOTO	Optional image of the feature.		