CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
BUILDINGS	AC	Air Conditioner	AC AC		DNI	The center on top.
AERIAL TARGETS	AERLCH	Aerial Lidar Check Shot Hard	Default "+"	Shot Location	DNI	
AERIAL TARGETS	AERLCS	Aerial Lidar Check Shot Soft	Default "+"	Shot Location	DNI	
AERIAL TARGETS	AERPP	Aerial Photo Point	VCTRL	Note1 - any notes Note2 Note3	DNI	The desired photo point.
AERIAL TARGETS	AERTAR	Aerial Target Full	FCTRL	Target#	DNI	The center of the target.
SURVEY MONUMENTS	AXLE	Axle Found	AXLE AXLE	<b>Depth</b> - depth below surface <b>Note</b> - any notes	DNI	
DTM FEATURES	В	Ground Break Line	Default "+"		BREAK	The break line on the ground.
ROADWAY	ВВ	Bumper Blocks (Parking Lot Block)	Default "+"		DNI	Each end of the block.
BRIDGES	BD	Bridge Deck	Default "+"	Material Thickness Condition	DNI	The perimeter of the bridge deck.
SIGNING	BILLBO	Billboard	Default "+"	Permit# Note - any notes	DNI	The perimeter of the billboard.

ODOT Survey Codes, November 1, 2018

Page 1

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
BUILDINGS	BLD	Building Corner w/ DTM	Default "+"	Use - Commercial, Residential, Farm, etc. Story - number? Construction - Frame, Masonry, etc. Address - address?	VOID	The perimeter of the building. Note: VOID areas must be closed.
BUILDINGS	BLD2D	Building Corner w/o DTM	Default "+"	Use - Commercial, Residential, Farm, etc. Story - number? Construction - Frame, Masonry, etc. Address - address?	DNI	The corners of the building.
SURVEY CONTROL	ВМ	Benchmark Found	BM	Description - Describe the BM Location - Location of the BM Note - any notes	DNI	The bench mark.
ROADWAY	ВО	Bollard	ВО		DNI	The center of the Bollard
BRIDGES	ВОВ	Bottom of Beam	Default "+"	<b>Type</b> - type of beam?	DNI	The bottom of any beam.
BRIDGES	BRFLOOR	Bottom of Bridge Deck	Default "+"		DNI	The perimeter of the bottom of the bridge deck.
ROADWAY	BROCK	Perimeter of Bedrock	Default "+"		BREAK	The perimeter of the exposed bed rock at the ground.
BRIDGES	BRRAIL	Top of Bridge Rail	Default "+"		DNI	The top of the bridge rail.
BRIDGES	BRSEAT	Beam Seat Elevation	Default "+"		DNI	See Bridge Survey Instructions.
VEGETATION	BUSH	Bush or Shrub	SHRUB		DNI	The center of the bush/shrub.

ODOT Survey Codes, November 1, 2018

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
PAVEMENT	С	Edge of Curb	Default "+"	Width Material - concrete, asphalt, etc.	BREAK	The back edge of the curb.
SURVEY CONTROL	CALPT	Calculated Point	X		DNI	This is for laying out calculated points, or to show a calculated point in COGO.
BUILDINGS	CANOPY	Canopy	Default "+"	Material	DNI	The corners of the canopy.
DRAINAGE	CB-2-2B	Catch Basin No. 2-2B	CB22B-X	P1 P2 P3 P4 P5 N5	SPOT	The center of the grate. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE	CB-3	Curb Inlet No. 3	CB3-X	P1 P2 P3 P4 P5 N5	SPOT	The low spot of the grate, at the face of curb in the center of the structure Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE	CB-4	Catch Basin No. 4	CB4-X	P1 P2 P3 P4 P5 N5	SPOT	Center of the grate. If the grate is slanted, take a second shot at the low point using the <b>FLTOP</b> field code. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: <b>dip-size-material-direction</b>
DRAINAGE	CB-5	Catch Basin No. 5	CB5-X	P1 P2 P3 P4 P5 N5	SPOT	Center of the grate. If the grate is slanted, take a second shot at the low point using the <b>FLTOP</b> field code.  Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: <b>dip-size-material-direction</b>
DRAINAGE	CB-6	Catch Basin No. 6	CB6-X	P1 P2 P3 P4 P5 N5	SPOT	Back of grate. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE	CB-7	Catch Basin No. 7	CB7-X	P1 P2 P3 P4 P5 N5	SPOT	The top center, if dome grate use offset. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
ROADWAY	CBAR	Concrete Barrier	Default "+"		BREAK	The center of the top of the barrier.

ODOT Survey Codes, November 1, 2018

Page 3

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
DRAINAGE	CBDAT	Catch Basin Data	Default "+"	Material Condition Size Type	DNI	Dual code with CBR, CBS, CI, or MI.
DRAINAGE	CBR	Round Inlet	СВ7-Х	P1 P2 P3 P4 P5 N5	SPOT	The top center, if dome grate use offset. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE	CBS	Square Catch Basin	CB22B-X	P1 P2 P3 P4 P5 N5	SPOT	The center of the grate. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
GEOMETRY	CCON	Centerline of Construction	Default "+"		DNI	The monuments that control this line.
LIGHTING	ССРС	Control Center Power Center Base	CCPS		DNI	The center of the base.
SURVEY CONTROL	CGSF	Cotton Gin Spike Found	GSPK  GIN SPIKE	<b>Depth Note</b> - any notes	DNI	The center top of the spike.
SURVEY CONTROL	CGSS	Cotton Gin Spike Set	GSPKS  GIN SPIKE	<b>Note</b> - any notes	DNI	The center top of the spike.
DRAINAGE	CI	Curb Inlet	CB3-X	P1 P2 P3 P4 P5 N5	SPOT	Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
UTILITIES - MISC	CISTERN	Cistern	Default "+"		DNI	The top perimeter.
SURVEY MONUMENTS	CMON	Concrete Monument Found	MON	Depth - depth below surface Note - any notes	DNI	A concrete monument found.

SURVEY MONUMENTS CN  DRAINAGE CN	MPA	Corrugated Metal Pipe  Corrugated Metal Pipe  Arch		ATTRIBUTES  Depth - depth below surface Note - any notes  Size Location Condition  Size	DNI	Concrete monument set by ODOT or consultant Forces.  The ends of the pipe at the invert.
DRAINAGE CN	MPA	Set  Corrugated Metal Pipe  Corrugated Metal Pipe	Default "+"	Note - any notes  Size Location Condition		Forces.
	МРА	Corrugated Metal Pipe		Location Condition	DNI	The ends of the pipe at the invert.
DRAINAGE CN			Default "+"	Size		
		1		Location Condition	DNI	The ends of the pipe at the invert.
SURVEY CONTROL CN		Miscellaneous Control Point	PC •	<b>Note</b> - any notes	DNI	Center of the control point.
GEOTECHNICAL CO		Coal Seam Line (Generic)	Default "+"		DNI	The perimeter of the area.
SURVEY CONTROL CO	ONDAT	Control Points Data	Default "+"	Note1 - any notes Note2 Note3 Note4	DNI	Use for information to plot in the DGN file about all Control Points/Property Pins, etc.
DRAINAGE CO	OUT	Pipe Clean Out	COUT-X	Use - Sanitary, Storm, etc. Size	DNI	The center.
PAVEMENT CP	P	Pavement Crown	Default "+"		BREAK	The center of the pavement at the crown.
SIGNALS CP		Traffic signal Controller Base Mt	СВМ		DNI	The center of the base.
SIGNALS		Traffic Signal Controller Pole Mt	CPM		DNI	The center of the base.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
DRAINAGE	СРР	Corrugated Plastic Pipe	Default "+"	Size Location Condition	DNI	The ends of the pipe at the invert.
RIGHT-OF-WAY	CRW	Centerline of Right of Way	Default "+"		DNI	The monuments that control this line.
GEOMETRY	CS	Curve to Spiral	PC		DNI	The monument that control this point.
UTILITIES - TELECOMMUNICATIONS	CSB	Cell Service Booster	CSB (CSB)		DNI	The center below the Cell Service Booster
SURVEY MONUMENTS	CSF	Corner Stone Found	STONE	Depth - depth below surface Note - any notes	DNI	Center of high point or the mark on the stone.
GEOMETRY	CSURV	Centerline of Survey	Default "+"		DNI	The monuments that control this line.
UTILITIES - CABLE TV	CTVA	Cable TV Amplifier	CTVA		DNI	The base of the post at the ground.
UTILITIES - CABLE TV	CTVL	Cable TV Line	Default "+"	Location - overhead / underground? Type - conventional / fiber optic? Note - any notes	DNI	The location of the line.
DRAINAGE	CULV	Culvert	Default "+"	Size Location Condition	DNI	The ends of the culvert at the invert.
SURVEY CONTROL	CUT	Cross Cut Found	BMCHS		DNI	Center of cross.

ODOT Survey Codes, November 1, 2018

Page 6

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
SURVEY CONTROL	CUTS	Cross Cut Set	BMCHSS		DNI	Center of cross.
DRAINAGE	D	Center of Ditch	Default "+"		BREAK	The center of the ditch.
UTILITIES - MISC	DM	Guy Wire Anchor (Deadman)	DM		DNI	The ground where the anchor enters.
GEOTECHNICAL	DMAS	Deep Mine Air or Pump Shaft	MINEAPSH		DNI	The perimeter of the shaft.
GEOTECHNICAL	DME	Deep Mine Entry, Slope	MINESL		DNI	The entry. Dual code with <b>FDO</b> to show directi
GEOTECHNICAL	DMED	Deep Mine Entry, Drift	MINEDR		DNI	The entry. Dual code with <b>FDO</b> to show directi
GEOTECHNICAL	DMEDD	Deep Mine Entry Shaft, Drift with Discharge	MINEDRDL		DNI	The entry. Dual code with <b>FDO</b> to show direct
GEOTECHNICAL	DMES	Deep Mine Entry Shaft	MINEENTSH		DNI	The shaft.
GEOTECHNICAL	DMESD	Deep Mine Entry Shaft, Slope with Discharge	MINESLDL		DNI	The shaft. Dual code with <b>FDO</b> to show directi
GEOTECHNICAL	DMS	Mine Subsidence, Point	MINESUB		DNI	The center point, if possible.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
DRAINAGE	DP	Drive Pipe	Default "+"	Size Location Condition	DNI	The ends of the pipe at the invert.
PAVEMENT	DR	Edge of Drive	Default "+"	Material - concrete, asphalt, etc.  Type - field, residential, etc.	BREAK	The edge of the drive.
DRAINAGE	DRAIN	Drain	FDRN-X	Type - Floor, Wall, etc. Material	SPOT	The center of the drain.
SURVEY CONTROL	DRILLH	Drill Hole Found	DHOLE  • D. H. F.		DNI	The center of the hole.
SURVEY CONTROL	DRILLHS	Drill Hole Set	DHOLES  D. H. S.		DNI	The center of the hole.
DRAINAGE	DRNT	Trench Drain	Default "+"	Width	BREAK	The ends of the drain.
DRAINAGE	DRYW	Dry Well for Storm Drainage	DRYW-X	Material Depth Diameter	DNI	The center of the lid.
PAVEMENT	EB	Edge of Berm	Default "+"	Material Depth	BREAK	The edge of the aggregate shoulder.
UTILITIES - ELECTRIC	EME	Electric Meter	EM	Utility - name of utility company Note - any notes	DNI	The top of the meter.
UTILITIES - ELECTRIC	ЕМН	Electric Manhole	EMH	Note1 - any notes Note2	DNI	The center of the lid on top.

ODOT Survey Codes, November 1, 2018

Page 8

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
PAVEMENT	EP	Edge of Pavement	Default "+"	Material Depth	BREAK	The edges of the pavement.
UTILITIES - ELECTRIC	EPB	Electric Pull Box	EBOX		DNI	The center of the Pull Box.
PAVEMENT	EPS	Edge of Paved Shoulder	Default "+"	Material Depth	BREAK	The edge of the paved shoulder.
DTM FEATURES	ES	Edge of Slip	Default "+"		BREAK	The edge of the slip.
UTILITIES - ELECTRIC	ETRANS	Pad Mounted Transformer	ETRANS		DNI	The top center of the cabinet.
VEGETATION	FB	Flower Bed	Default "+"		BREAK	The perimeter of the bed.
VEGETATION	FBR	Raised Flower Bed or Planter	Default "+"	Material - aluminum, steel, wood, etc. Note - any notes	DNI	The perimeter of the bed / planter.
UTILITIES - WATER	FC	Fire Connection	FC F C		DNI	The center in front of the Fire Connection
DATA CODES	FDAT	Any Notes for Field Data	Default "+"	Note1 - any notes Note2 Note3	DNI	Use for any note you wish to put in the DGN file.
DRAINAGE	FDO	For Direction Only	Default "+"	Note1 - any notes Note2 Note3	DNI	Use to show direction for an object. Typically used to show the direction of a pipe when the other end cannot be located.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
ROADWAY	FEN	Fence w/ DTM	Default "+"	Type - wire, wood, etc.  Height Owner - ODOT, private	SPOT	The base of the fence on the ground.
ROADWAY	FEN2D	Fence w/o DTM	Default "+"	Type - wire, wood, etc. Height Owner - ODOT, private	DNI	The base of the fence on the ground.
BUILDINGS	FF	Finished Floor Elevation	RRFROG		DNI	
UTILITIES - WATER	FH	Fire Hydrant	FH		DNI	The center of the top.
ROADWAY	FLAG	Flag Pole	FLAGP	Material - Aluminum, Steel, Wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The center of the base.
DRAINAGE	FLINE	Flow line of Drainage Structure	Default "+"		DNI	The flow line of the drainage structure.
DRAINAGE	FLTOP	Low Elevation Point of Inlet Lid	Default "+"		SPOT	The low point of the lid.
UTILITIES - CABLE TV	FO	Fiber Optic	FO		DNI	The center of the Fiber Optic line marker
UTILITIES - MISC	FO	Fiber Optic Line	Default "+"	Note1 - any notes Note2	DNI	The location of the line.
UTILITIES - CABLE TV	FOMH	Fiber Optic Manhole	FOMH		DNI	The center of the Fiber Optic Manhole

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
CATEGORI		DESCRIPTION	CLLL	ATTRIBUTES	D T W	311001
RAILROAD	FROG	Point of Railroad Frog	RRFROG		DNI	The point where rails cross in a switch.
ROADWAY	GATE	Fence Gate	Default "+"		DNI	Each end of the gate.
UTILITIES - GAS	GL	Gas Line	Default "+"	Size Material Pressure Note - any notes	DNI	The location of the line.
UTILITIES - GAS	GLM	Gas Line Marker	GMRK	Utility - name of utility company Size	DNI	The top of the marker.
UTILITIES - GAS	GLV	Gas Line Vent	GVENT		DNI	The top of the vent.
UTILITIES - GAS	GME	Gas Meter	GM	Size - diameter of pipe  Note - any notes	DNI	The top of the meter cover.
UTILITIES - GAS	GMH	Gas Manhole	GMH ( )	Material - material of manhole  Note - any notes	DNI	The center of the lid on top.
SURVEY CONTROL	GOVCON	Government Control Point Found	GOVD	Depth - depth below surface Description - Describe the monument Note - any notes	DNI	The center of the point.
SURVEY CONTROL	GOVCONS	Government Control Point Set	GOVDS	<b>Description</b> - Describe the monument <b>Note</b> - any notes	DNI	The center of the point.
ROADWAY	GRBAR	Guardrail Barrier	Default "+"	Height	SPOT	The ground at the post. Guard rail on both sides.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
ROADWAY	GRBAR2D	Guardrail Barrier	Default "+"	Height	DNI	The ground at the post. Guard rail on both sides.
ROADWAY	GRCAB	Guardrail Cable Barrier	Default "+"	Height	DNI	The ground at the post.
ROADWAY	GRILL	Stationary Barbeque Grill	BBQ		DNI	The center of the support at the ground.
ROADWAY	GRLT	Guardrail Left	Default "+"	Height	SPOT	The ground at the face of the guard rail. Guard rail post to the left of the rail as you are taking shots.
ROADWAY	GRLT2D	Guardrail Left on Bridge	Default "+"	Height	DNI	The ground at the face of the guard rail. Guard rail post to the left of the rail as you are taking shots.
ROADWAY	GRRT	Guardrail Right	Default "+"	Height	SPOT	The ground at the face of the guard rail. Guard rail post to the right of the rail as you are taking shots.
ROADWAY	GRRT2D	Guardrail Right on Bridge	Default "+"	Height	DNI	The ground at the face of the guard rail. Guard rail post to the right of the rail as you are taking shots.
UTILITIES - GAS	GSV	Gas Service Valve (Curb Shutoff)	GSS +	Note - any notes	DNI	The center of the valve.
PAVEMENT	GUT	Edge of Gutter	Default "+"		BREAK	The edge of the gutter. (bottom of curb)
UTILITIES - GAS	GVALVE	Gas Valve	GV ( • )	Size - diameter of pipe Open - open direction left/right Note - any notes	DNI	The top of the riser.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
AERIAL TARGETS	Н	Hard Shot (LiDAR Control)	Default "+"	Shot Location	DNI	
VEGETATION	HEDGER	Hedge Row	Default "+"		DNI	The perimeter of the hedge row in a clockwise direction.
ROADWAY	HSTONE	Headstone (Grave Marker)	RIP	Width Length Height	DNI	The top center of the head stone.
SURVEY CONTROL	HUB	Tacked Hub Found	HUBT		DNI	The top of the tack.
SURVEY CONTROL	HUBSET	Tacked Hub Set	HUBTS		DNI	The top of the tack.
DRAINAGE	HWATER	High Water Elevation	BMCHS	Year - year of high water? Basis - what is it based on?	DNI	The ground at the location of the High Water Mark.
DRAINAGE	I-2-6	Median Inlet No. 2	I-26-X	P1 P2 P3 P4 P5 N5	SPOT	Shoot the flow line elevation at the center of the opening. Openings vary from 6' to 20' lengths. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE	I-3B	Median Inlet No. 3	I-3B-SS-X	P1 P2 P3 P4 P5 N5	SPOT	Center of Grate. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE	I-4B	Median Inlet No. 4	I-4B-SS-X	P1 P2 P3 P4 P5 N5	SPOT	Shoot the approximate center of the structure on top of the barrier. Measure the barrier height andadd that value to the rod height to set the elevation for the grate.  Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
SURVEY MONUMENTS	IPID	Iron Pin & Cap Found	IPID  (*) I.P.F.	Size Name Number Depth Note - any notes	DNI	The center of the top of the pin.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
SURVEY MONUMENTS	IPIN	Iron Pin Found	IPF  I.P.F.	Size Depth Note - any notes	DNI	The center of the top of the pin.
SURVEY MONUMENTS	IPINS	Iron Pin Set	IPS  I.P.S.	Size Name Number Note - any notes	DNI	The center of the top of the pin.
SURVEY MONUMENTS	IPIPE	Iron Pipe Found	IPIPE  P.F.	Size Name Number Depth Note - any notes	DNI	The center of the top of the pipe.
SURVEY MONUMENTS	IPIPES	Iron Pipe Set	IPIPES  P.S.	Size Name Number Note - any notes	DNI	The center of the top of the pipe.
UTILITIES - MISC	LE	Leach Bed	Default "+"	Depth - how deep is the tile Size - what size is the tile	SPOT	The perimeter of the leach bed area.
ROADWAY	LINE	Connect points around an object w/	Default "+"	Note - what is it?	SPOT	The corners of the object.
ROADWAY	LINE2D	Connect points around an object w/o DTM	Default "+"	Note - what is it?	DNI	The corners of the object.
LIGHTING	LPB	Lighting Pull Box	PBJB		DNI	The center of the pull box.
LIGHTING	LPOLE	Light Pole	LPOLE	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The center of the base at the ground.
SURVEY CONTROL	MAG	Mag Nail Found	MNAIL  • M.N.F.	Depth Note - any notes	DNI	The top of the nail.

SURVEY CONTROL MA		Mag Nail Set  Wail Box	• M.N.S.	Note - any notes	DTM	SHOOT  The top of the nail.
ROADWAY MB			• M.N.S.	Note - any notes	DNI	The top of the nail.
	3 [	Mail Box	B 4 D			
UTILITIES - SANITARY MH	<u>I</u>			Post Material Size - size of post	DNI	The center of the post at the ground.
	1-3-SAN	Sanitary Manhole	S-A	P1 P2 P3 P4 P5	DNI	The center of the lid on top. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
DRAINAGE <b>MI</b>	1	Median Inlet		P1 P2 P3 P4 P5	SPOT	Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
ROADWAY		Miscellaneous Item Found		Note - what is it?  Depth - depth below surface?	DNI	The center of the object.
SURVEY MONUMENTS MO	ONBOX	Monument Box Found		Size Name Number Note - any notes	DNI	The top of the iron pin in the monument box.
SURVEY MONUMENTS MO	ONBOXS	Monument Box Set		Size Name Number Note - any notes	DNI	The top of the iron pin in the monument box.
SURVEY MONUMENTS MSF	SPK I	Mine Spike Found		Depth Note - any notes	DNI	The center of the top of the spike.
SURVEY MONUMENTS MSF	SPKS I	Mine Spike Set	MSPKS	Note - any notes	DNI	The center of the top of the spike.
SURVEY CONTROL NAI		Carpenter's Nail Found		Depth Note - any notes	DNI	The center of the top of the nail.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
DIVISIONS	OCCL	Occupation Line	Default "+"	Type - what type of occupation?	DNI	The points along the occupation line.
SIGNING	ocss	Overhead Cantilever Sign Support	Default "+"	Length - length of cantilever? Clearance - Clearance above pavement?	DNI	The perimeter of the base.
DTM FEATURES	OG	Original Ground	Default "+"		BREAK	The edge of grading.
DRAINAGE	OHWM	Ordinary High Water Mark	BMCHS		DNI	The edge of the water.
SIGNING	OSSS	Overhead Structure Mounted Sign	Default "+"		DNI	Both ends of the mounting systems.
SIGNING	OTSS	Overhead Truss Sign Support	Default "+"		DNI	The outside corners of the truss.
ROADWAY	PAD	Pad Existing	Default "+"	Note - what is it for?  Material - concrete, asphalt, etc.	BREAK	The corners of the pad.
ROADWAY	PAD2D	Pad Existing	Default "+"	Note - what is it for?  Material - concrete, asphalt, etc.	DNI	The corners of the pad.
PAVEMENT MARKINGS	PAINTL	Painted Line on Pavement	Default "+"	Color - white, yellow, other Type - solid, dashed, other Note - any notes	DNI	The deflections, begin, end, etc. of the line.
PAVEMENT MARKINGS	PAINTS	Painted Stop Bar	Default "+"		DNI	The perimeter of the stop bar.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
ROADWAY	РВ	News Paper Box	PB	Post Material Size - size of post	DNI	The center of the post at the base.
GEOMETRY	PC	Point of Curve	PC		DNI	The monument that control this point.
DRAINAGE	PCO	Precast Concrete Pipe Outlet	DM11-X	P1	DNI	The outlet of the pipe. Attributes P1 is used to define the pipe in the following format: dip-size-material-direction The dip value should be zero when the shot is on the invert. Use the diameter of the pipe if the shot is on the top of the pipe.
UTILITIES - TELECOMMUNICATIONS	РНВО	Telephone Booth	твтн ГТЕЦ В ТН		DNI	The center of the phone booth on the ground.
UTILITIES - TELECOMMUNICATIONS	PHONE	Pay Telephone	PPHONE		DNI	The center of the phone booth on the ground.
GEOMETRY	PI	Point of Intersection	PI		DNI	The monument that control this point.
BRIDGES	PIER	Perimeter of Pier	Default "+"		DNI	The perimeter of the piers.
BRIDGES	PIERCB	Pier Cap Bottom	Default "+"		DNI	See Bridge Survey Instructions.
BRIDGES	PIERT	Top of Pier	Default "+"		DNI	See Bridge Survey Instructions.
GEOTECHNICAL	PILEBEAM	Steel Beam Pile for Soil Retention, Existing	BEAM_PILE	Length - Length of pile above ground Lagging - Wood, steel, etc. Orient - angle relative to roadway Batter - batter angle Size - beam size Note - any notes	DNI	The top center of the pile.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
GEOTECHNICAL	PILEPIPE	Steel Pipe Pile for Soil Retention, Existing	PIPE_PILE	Length - Length of pile above ground Lagging - Wood, steel, etc. Orient - angle relative to roadway Batter - batter angle Diameter - pipe size Note - any notes	DNI	The top center of the pile.
DRAINAGE	PIO	Pipe Inlet/Outlet	Default "+"	P1	DNI	The invert of the pipe. Attributes P1 is used to define the pipe in the following format: dip-size-material-direction The dip value should be zero when the shot is on the invert. Use the diameter of the pipe if the shot is on the top of the pipe.
SURVEY CONTROL	PK	PK Nail Found	PKNAIL ● P .K .F .	<b>Depth Note</b> - any notes	DNI	The top of the nail.
SURVEY CONTROL	PKS	PK Nail Set	PKNALS  • P.K.S.	Note - any notes	DNI	The top of the nail.
UTILITIES - ELECTRIC	PL	Power Line	Default "+"	Location - overhead / underground?  Voltage - voltage on the line  Note - any notes	DNI	The location of the line.
UTILITIES - ELECTRIC	PLM	Power Line Marker	PMRK	Utility - name of utility company Note - any notes	DNI	The top of the marker.
PAVEMENT	PLOT	Parking Lot	Default "+"	Note - any notes	BREAK	The edge of the parking lot.
UTILITIES - ELECTRIC	PLP	Power and Light Pole	PLP	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The center of the pole at ground level.
PAVEMENT MARKINGS	PMHS	Handicap Symbol	PMHS		DNI	The top center of the symbol.
PAVEMENT MARKINGS	PMLT	Left Turn Arrow	PMLFT		DNI	The top of the arrow.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
PAVEMENT MARKINGS	PMONLY	Word on Pavement "ONLY"	PMON6		DNI	The top center of the word.
PAVEMENT MARKINGS	PMRR	Railroad Crossing	PMRR8		DNI	The center of "X" symbol.
PAVEMENT MARKINGS	PMRT	Right Turn Arrow	PMRT		DNI	The top of the arrow.
PAVEMENT MARKINGS	PMSCHOOL	Word on Pavement "SCHOOL"	PMSC6		DNI	The top center of the word.
PAVEMENT MARKINGS	PMSTOP	Word on Pavement "STOP"	PMST6		DNI	The top center of the word.
PAVEMENT MARKINGS	PMTH	Thru Arrow	PMTHR		DNI	The top of the arrow.
ROADWAY	PMTR	Parking Meter	PM PM		DNI	The center of the meter.
GEOMETRY	POC	Point on Curve	PC		DNI	The monument that controls this point.
BUILDINGS	POR	Porch	Default "+"	Material - Material the porch is made of? Cove - yes or no	VOID	The perimeter of the porch. Note: VOID areas must be closed.
ROADWAY	POST	Any type of Post	POST	Use - fence, guard, etc. Size - diameter of post? Material - concrete, steel, etc.	DNI	The center of the post at the ground. (use offset if needed)

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
GEOMETRY	POT	Point on Tangent	PC		DNI	The monument that controls this point.
UTILITIES - ELECTRIC	PP	Power Pole	PP	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The center of the pole at ground level.
UTILITIES - MISC	PPUMP	Petroleum Pump	GPUMP	Material Type - type of material pumped	DNI	The top of the pump.
GEOMETRY	PT	Point Tangent	PC		DNI	The monument that control this point.
DIVISIONS	QCOR	Quarter Section Corner	SECHLF		DNI	The top of the monument found.
DRAINAGE	R	Edge of Rip Rap	Default "+"		BREAK	The corners of the riprap.
RAILROAD	RAIL	Top Center of Rails	Default "+"	Type Condition Height	DNI	The top center of both rails.
RAILROAD	RAILC	Top Center of Tie between Rails	Default "+"	Type Condition Height	DNI	The top center of the ties between the rails.
RAILROAD	RAILPS	Point of Rail Switch	RRAILPS		DNI	The switch where turnout begins.
DRAINAGE	RCP	Reinforced Concrete Pipe	Default "+"	Size Location Condition	DNI	The invert of the pipe.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
DRAINAGE	RCPA	Reinforced Concrete Pipe Arch	Default "+"	Size Location Condition	DNI	The invert of the pipe.
DATA CODES	RESRFDAT	Resurface Data	Default "+"	Adjustment Type - feather, adjustment to grade, no adjustment, reconstruct, engineer review  Note - any notes	DNI	The item to associate with the resurfacing data.
DRAINAGE	RIVER	Edge of Water	Default "+"		BREAK	The edge of the water.
GEOTECHNICAL	RLINE	Rock Outcrop Line	Default "+"		SPOT	Edge of the rock.
ROADWAY	ROCK	Large Rock	ROCK	Note - any notes	DNI	The top center of the rock.
RAILROAD	RRX	Rail Road Crossing Signal	RRS	<b>Type</b> - crossbuck, signal, gate, buckeye, etc.	DNI	The center of the base.
SURVEY CONTROL	RSPK	Rail Road Spike Found	RRSPK	<b>Depth Note</b> - any notes	DNI	The top of the spike.
SURVEY CONTROL	RSPKS	Rail Road Spike Set	RRSPKS	Note - any notes	DNI	The top of the spike.
RIGHT-OF-WAY	RW	Right of Way	Default "+"		DNI	The monuments that control this line.
AERIAL TARGETS	S	Soft Shot (LiDAR Control)	Default "+"	Vegetation Type Vegetation Height	DNI	

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
GEOMETRY	SC	Spiral to Curve	PC •		DNI	The monument that controls this point.
DIVISIONS	SCOR	Section Corner	SECCOR		DNI	The top of the monument found.
UTILITIES - WATER	SCV	Sprinkler Control Valve	SCV		DNI	The center of the Sprinkler Control Valve
ROADWAY	SD	Satellite Dish	SATD	Size - diameter of dish?  Diameter - diameter of post?	DNI	The center of the post at the ground.
UTILITIES - SANITARY	SEPTIC	Septic Tank	SEPTC (SEP)		DNI	Shoot the top of the lid.
SIGNALS	SGPED	Signal Pedestal	SPED		DNI	The center of the base.
SIGNALS	SGPOLE	Signal Support Pole	SPOLE	Type Length - length of cantilever?	DNI	The center of the base.
SIGNING	SIGNPB	Sign Public	SGN1P	Note1 - any notes Note2 Note3	DNI	The bottom center edge of the sign. (Only needed once per sign regardless of the number of posts) For <b>SIGNPB</b> , enter the following: Sign # from Sign Design manual? Number of posts?
SIGNING	SIGNPB2	Sign Public 2 Post	SGN3P	Note1 - any notes Note2 Note3	DNI	The bottom center edge of the sign. (Only neede once per sign regardless of the number of posts) For <b>SIGNPB</b> , enter the following: Sign # from Sign Design manual?
SIGNING	SIGNPB3	Sign Public 3 Post	SGN3P	Note1 - any notes Note2 Note3	DNI	The bottom center edge of the sign. (Only neede once per sign regardless of the number of posts) For <b>SIGNPB</b> , enter the following: Sign # from Sign Design manual?

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
SIGNING	SIGNPR	Sign Private	SGN1P	Note1 - any notes Note2 Note3	DNI	The bottom center edge of the sign. (Only needed once per sign regardless of the number of posts)
SIGNING	SIGNPR2	Sign Private 2 Post	SGN2P	Note1 - any notes Note2 Note3	DNI	The bottom center edge of the sign. (Only needed once per sign regardless of the number of posts)
SIGNING	SIGNPR3	Sign Private 3 Post	SGN3P	Note1 - any notes Note2 Note3	DNI	The bottom center edge of the sign.
SIGNING	SLIGHT	Sign Luminaire	SGNL		DNI	The center of the light.
GEOTECHNICAL	SMH	Surface Mine Highwall	Default "+"		BREAK	The edge of the highwall.
DRAINAGE	SMP	Smooth Metal Pipe	Default "+"	Size Location Condition	DNI	The ends of the pipe at the invert.
SURVEY CONTROL	SMSF	Survey Marker Spike Found	RRFROG	Depth - depth of marker Note - any notes	DNI	The center of the marker.
SURVEY CONTROL	SMSS	Survey Marker Spike Set	RRFROG	Note - any notes	DNI	The center of the marker.
GEOTECHNICAL	SOIL	Soil Boring Project	SOILB_PROJ		DNI	The center of the boring.
GEOTECHNICAL	SOILINST	Soil Boring Instrumented	SOILB_INST		DNI	The center of the boring.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
GEOTECHNICAL	SOILTARG	Soil Boring Target	SOILB_TARGET		DNI	The center of the target.
ROADWAY	SPKHD	Sprinkler Head	SPKHD ( )		DNI	The top of the head.
DRAINAGE	SPP	Smooth Plastic Pipe	Default "+"	Size Location Condition	DNI	The ends of the pipe at the invert.
GEOTECHNICAL	SPRD	Spring, Developed	SPRINGDL		DNI	The point where the water leaves the ground. Shoot an <b>FDO</b> shot to show direction or use <b>RIVER</b> to show the flow.
GEOTECHNICAL	SPRU	Spring, Undeveloped	SPRINGUL		DNI	The point where the water leaves the ground. Shoot an <b>FDO</b> shot to show direction or use <b>RIVER</b> to show the flow.
UTILITIES - SANITARY	SSL	Sanitary Gravity Line	Default "+"	Size - diameter of line  Material - construction material of line  Note - any notes	DNI	The location of the line.
UTILITIES - SANITARY	SSM	Sanitary Line Marker	ssmrk + S A	Utility Note	DNI	The top of the marker.
UTILITIES - SANITARY	SSMH	Sanitary Manhole	MH1D-X-SAN	P1 P2 P3 P4 P5 N5	DNI	The center of the lid on top. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
UTILITIES - SANITARY	SSPL	Sanitary Pressure Line	Default "+"	Size - diameter of line  Material - construction material of line  Pressure - pressure in line  Note - any notes	DNI	The location of the line.
UTILITIES - SANITARY	SSV	Sanitary Line Vent	SVENT  S A		DNI	The top of the vent.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
UTILITIES - SANITARY	SSVALVE	Sanitary Valve	sv (S•A)	Size - diameter of pipe Open - open direction left/right Note - any notes	DNI	The top of the riser.
GEOMETRY	ST	Spiral to Tangent	PC		DNI	The monument that controls this point.
PAVEMENT	STEPS	Steps w/ DTM	Default "+"	Material - steps are made from? Number - number of steps? Tread - tread width?	BREAK	The perimeter of the steps on the ground, or each step as required.
PAVEMENT	STEPS2D	Steps w/o DTM	Default "+"	Material - steps are made from? Number - number of steps? Tread - tread width?	DNI	The perimeter of the steps on the ground, or each step as required. Use this code for steps that are not on the ground, such as a fire escape.
DRAINAGE	STMH	Storm Manhole	MH1D-X	P1 P2 P3 P4 P5	DNI	The center of the lid on top. Attributes P1-P5 are used to define the pipes terminating within the structure in the following format: dip-size-material-direction
VEGETATION	STUMP	Stump	STUMP	Size - diameter of stump	DNI	The top center of the stump.
DRAINAGE	SWAMP	Edge of Swamp	Default "+"		BREAK	The corners of the swamp.
VEGETATION	Т	Deciduous Tree	TREE	Size - diameter of stump  Type - kind of tree	DNI	The center of the tree.
UTILITIES - MISC	TANK	Tank	Default "+"	Material Type - Material in tank Tank Type - Material of tank Location - above/below ground	DNI	The perimeter of the tank.
DTM FEATURES	ТВ	Top of Bank	Default "+"		BREAK	The top of the bank.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
SURVEY MONUMENTS	TBAR	T-Bar Found	TBAR  → T.B.F.	Name Number Depth Note - any notes	DNI	
UTILITIES - TELECOMMUNICATIONS	твох	Telephone Riser/Pedestal /Box	TPED	Utility - name of utility company Size	DNI	The top of the box in the center.
VEGETATION	TE	Evergreen Tree	ETREE	Size - diameter of stump  Type - kind of tree	DNI	The center of the tree.
BUILDINGS	TF	Top of Foundation	Default "+"		DNI	1 shot on each building for an elevation.
UTILITIES - MISC	TFC	Tank Filler Cap	TNKCAP ( • )	Material Type - Material in tank	DNI	The top of the filler cap.
UTILITIES - TELECOMMUNICATIONS	TL	Telephone Line	Default "+"	Location - overhead / underground? Type - conventional / fiber optic? Note - any notes	DNI	The location of the line.
UTILITIES - TELECOMMUNICATIONS	TLM	Telephone Line Marker	TMRK → T E L	Utility - name of utility company Note - any notes	DNI	The top of the marker.
UTILITIES - TELECOMMUNICATIONS	TLP	Telephone/Light Pole	TLGT	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The base of the pole at the ground.
UTILITIES - TELECOMMUNICATIONS	ТМН	Telephone Manhole	TMH ( )	Note1 - any notes Note2	DNI	The center of the lid on top.
UTILITIES - MISC	TOWER	Any type of tower	TOWER	Use - what is the tower used for?  Material - what material is the tower constructed of?  Size - diameter/size of the tower?	DNI	Center of base. (use offset if needed)

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
LIGHTING	TOWLGT	High Mast Tower Light	HMS	Luminaries - number of luminaries  Pole# - number on pole	DNI	The center of the base.
UTILITIES - TELECOMMUNICATIONS	TP	Telephone Pole	TELP	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The base of the pole at the ground.
SIGNALS	ТРВ	Traffic Pull Box	SIGPB		DNI	The center of the pull box.
UTILITIES - TELECOMMUNICATIONS	ТРР	Power and Telephone Pole	TPW	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The base of the pole at the ground.
SIGNALS	TRL	Traffic Line	Default "+"		DNI	
SIGNALS	TRMH	Traffic Manhole	TRAFFIC_MH		DNI	The center of the lid, on top.
GEOMETRY	TS	Tangent to Spiral	PC		DNI	The monument that controls this point.
DTM FEATURES	TSL	Toe of Slope	Default "+"		BREAK	The toe of the slope.
UTILITIES - ELECTRIC	UBOX	Electric Riser/Pedestal /Box	EBOX	Utility - name of utility company Size	DNI	The top of the box in the center.
UTILITIES - MISC	UMH	Unknown Manhole	UMH ( )	Note1 - any notes Note2 Note3	DNI	The center of the lid on top.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
UTILITIES - MISC	UP	Unknown Pole	UP	Material - aluminum, steel, wood, etc. Owner - who owns the pole Pole# - number on pole	DNI	The base of the pole at the ground.
UTILITIES - MISC	UPB	Unknown Pull Box	UBOX		DNI	The base of the pole at the ground.
UTILITIES - MISC	VALVE	Miscellaneous Utility Valve	UVALVE ( )	Utility - name of utility company Size - size of pipe Note - any notes	DNI	The top of the riser.
DRAINAGE	VCP	Vitrified Clay Pipe	Default "+"	Size Location Condition	DNI	The ends of the pipe at the invert.
DTM FEATURES	VOID	Miscellaneous Void Areas	Default "+"	Note - any notes	VOID	The perimeter of whatever you want to be a void area in the DTM. Note: VOID areas must be closed.
PAVEMENT	WALK	Edge of Walk w/ DTM	Default "+"	Material	BREAK	The edges of the walk.
PAVEMENT	WALK2D	Edge of Walk w/o DTM	Default "+"	Material	DNI	The edges of the walk.
BRIDGES	WALLA	Abutment and Wingwall	Default "+"	Material Location	BREAK	The perimeter of the wall on top. Shoot the bottom of the wall as a break line.
DRAINAGE	WALLH	Drainage Headwall	Default "+"	Material Location Condition	BREAK	The perimeter of the wall on top. Shoot the bottom of the wall as a break line.
ROADWAY	WALLR	Retaining Wall	Default "+"	Material Location Condition	BREAK	The perimeter of the wall on top. Shoot the bottom of the wall as a break line.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
GEOTECHNICAL	WDG	Water Well Dug	WWD (WELL)	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
GEOTECHNICAL	WDL	Water Well Drilled w/o Well Log	ww (WELL)	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
GEOTECHNICAL	WDWL	Water Well Drilled w/Well Log	wwL (WEL)	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
UTILITIES - GAS	WELLG	Gas Well	GWELL (WELL)	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
GEOTECHNICAL	WELLM	Monitoring Well	MWELL (WE'L)	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
UTILITIES - MISC	WELLO	Oil Well	OWELL	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
UTILITIES - MISC	WELLU	Unknown Well	UWELL	Casing - type of casing?  Diameter - diameter of casing?	DNI	Top of the casing.
SIGNALS	WIRE	Loop Detector	Default "+"		DNI	The loop detectors in a linear fashion.
UTILITIES - WATER	WL	Water Line	Default "+"	Size - diameter of line  Material - construction material of line  Pressure - pressure in line  Note - any notes	DNI	The location of the line.
UTILITIES - WATER	WLM	Water Line Marker	WLM	Utility - name of utility company Note - any notes	DNI	The center of the marker.

CATEGORY	CODE	DESCRIPTION	CELL	ATTRIBUTES	DTM	SHOOT
UTILITIES - WATER	WLV	Water Line Vent	WVENT		DNI	The top of the vent.
UTILITIES - WATER	WME	Water Meter	WM	Size - diameter of pipe  Note - any notes	DNI	The top of the meter cover.
UTILITIES - WATER	WMH	Water Manhole	WMH ( )	Material - material of manhole  Note - any notes	DNI	The center of the lid on top.
VEGETATION	WOODSL	Woods Left	Default "+"		DNI	The arcs of woods plotted on the left side as you're walking.
VEGETATION	WOODSR	Woods Right	Default "+"		DNI	The arcs of woods plotted on the right side as you're walking.
UTILITIES - WATER	WSV	Water Service Valve	wss <del>L</del>	Note - any notes	DNI	The center of the valve.
UTILITIES - WATER	WVALVE	Water Gate Valve	wgv ( W/V )	Size - diameter of pipe Open - open direction left/right Note - any notes	DNI	The center of the valve.
DTM FEATURES	x	Random Ground Spot w/ DTM	x		SPOT	The ground at the locations desired.
DTM FEATURES	X2D	Random Ground Spot w/o DTM	X		DNI	The ground at the locations desired.
ROADWAY	YLITE	Yard Lite - low to the ground	BUDLIT		DNI	The center of the top.