

4 Symbology

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4.1 Survey/Photogrammetry Symbology

4.1.1 Survey Strip Map Survey Feature List (sorted by feature class)

The following are the Features use within Survey strip. All features are in two categories; the first is the Feature Class and the second in the Feature Sub-class.

See **Appendix A for the symbology of each feature.

FEATURE CLASS	FEATURE SUB-CLASS	FEATURE ID	FEATURE NAME	FEATURE SUMMARY	Appendix A Page **
BARRIER	FENCE	7	CATGRD	CATTLEGUARD (description)	1
BARRIER	FENCE	17	FENCE	FENCE (description)	1
BARRIER	FENCE	18	GATE	GATE (description)	1
BARRIER	FENCE	60	SNOWF	SNOW FENCE (description)	1
BARRIER	RAIL	26	GRRL	GUARDRAIL POINT-GRND	1
BARRIER	RAIL	98	JRRL	JURSEY RAIL POINT-GRND	1
DRAINAGE	CULVERT	11	CULVI	END OF PIPE/CUL INV (description)	2
DRAINAGE	CULVERT	51	CULVT	TOP OF CULVERT	2
DRAINAGE	MISC	48	RIPRAP	RIPRAP BOUNDARY	2
DRAINAGE	WATER	105	DROPR	DROP INLET-ROUND (description)	2
DRAINAGE	WATER	13	DROP	DROP INLET-SQUARE (description)	2
DRAINAGE	WATER	29	HEADG	HEADGATE (description)	2
DRAINAGE	WATER	97	STRMDR	STORM DRAIN LINE	2
MISC	DTM	127	BNDRY	BOUNDARY	3
MISC	DTM	25	GB	BREAKLINE-GRADE BREAK	3
MISC	DTM	180	ISLAND	DTM ISLAND	3
MISC	DTM	122	OBSCURE	DTM OBSCURE AREA	3
MISC	DTM	27	GRND	GROUND SHOT	3
MISC	DTM	163	MISCDP	MISC DTM POINT (description)	3
MISC	DTM	162	MISCDL	MISC. DTM LINE (description)	3
MISC	MISC	0	DEFAULT	DEFAULT FEATURE	4
MISC	MISC	256	ELVXT	ELEV TEXT	4
MISC	MISC	140	PHOTO	PHOTOGRAPHY POINT	4
MISC	MISC	50	UHS	UNDERGROUND HAZARD SITE	4
MISC	NON DTM	35	MISCL	MISC. NON-DTM LINE (description)	4
MISC	NON DTM	34	MISCP	MISC. NON-DTM POINT (description)	4
NATURAL	LAND	3	BOB	BOTTOM OF BANK	5
NATURAL	LAND	4	BOS	BOTTOM OF SLOPE	5
NATURAL	LAND	74	TOB	TOP OF BANK	5
NATURAL	LAND	76	TOS	TOP OF SLOPE	5
NATURAL	VEGETATION	57	SHRUB	SHRUB	6
NATURAL	VEGETATION	81	TREE	TREE (description)	6
NATURAL	VEGETATION	117	TREELN	TREE LINE- BOUNDARY	6
NATURAL	VEGETATION	137	TREEROW	TREE-ROW	6
NATURAL	WATER	89	EDGEWAT	EDGE OF WATER	7
NATURAL	WATER	90	FLU	FLOWLINE-AGAINST FLOW	7
NATURAL	WATER	21	FL	FLOWLINE-WITH FLOW	7
NATURAL	WATER	95	HIWATER	HIGH WATER POINT	7
NATURAL	WATER	73	THALWEG	THALWEG OF STREAM	7
NATURAL	WATER	103	WETLB	WETLAND BOUNDARY (description)	7
ROAD/RR	ROAD	102	BITCURB	BITUMINOUS CURB	8
ROAD/RR	ROAD	9	CONC	CONCRETE (description)	8
ROAD/RR	ROAD	94	EOG	EDGE OF ROAD-GRAVEL	8
ROAD/RR	ROAD	15	EOP	EDGE OF ROAD-PAVEMENT	8
ROAD/RR	ROAD	106	EOT	EDGE OF ROAD-TRAIL	8
ROAD/RR	ROAD	32	MAIL	MAILBOX	8
ROAD/RR	ROAD	100	PTW	PTW-CENTERLINE	8
ROAD/RR	ROAD	56	SHLD	SHOULDER	9
ROAD/RR	ROAD	66	CURB	TOP BACK OF CURB	9
ROAD/RR	RR	49	RRCL	RR CENTERLINE	9
ROAD/RR	RR	108	RRCRL	RR CROSSING LIGHT	9
ROAD/RR	RR	52	RRSW	RR SWITCH	9
ROAD/RR	SIGNS	53	CHEV	DUAL CHEVRON SIGN	10

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ROAD/RR	SIGNS	39	MILEP	MILE POST (description)	10
ROAD/RR	SIGNS	58	SIGNM	SIGN - MULTI-POST (description)	10
ROAD/RR	SIGNS	59	SIGNS	SIGN - SINGLE-POST (description)	10
ROAD/RR	SIGNS	30	STID	STREET ID SIGN (description)	10
ROAD/RR	SIGNS	41	2FACE	TWO FACED SIGN (description)	10
STRUCTURE	MISC	6	BRCOR	BRIDGE CORNER	11
STRUCTURE	MISC	1	BLDG	BUILDING CORNER	11
STRUCTURE	MISC	92	ABUT	CONC ABUT/RET WALL (description)	11
STRUCTURE	MISC	83	WALL	WALL (description)	11
STRUCTURE	TANK	65	TANK	STORAGE TANK-ROUND (description)	11
STRUCTURE	TANK	64	TANKSH	STORAGE TANK-SHAPE (description)	11
SURVEY	CONTROL	2	BM	BENCHMARK (description)	12
SURVEY	CONTROL	63	SURV	SURVEY MON (description)	12
SURVEY	CONTROL	80	TRAV	TRAVERSE POINT (description)	12
SURVEY	MISC	144	PM	PROJECT MARKER (description)	12
SURVEY	MISC	143	SM	STATION MARKER (description)	12
SURVEY	R/W	55	RWPIN	R/W METAL PIN (description)	13
SURVEY	R/W	62	RWMA	R/W MON-ALUM (description)	13
SURVEY	R/W	54	RWMC	R/W MON-CONC (description)	13
SURVEY	R/W	61	RWREF	R/W REF PIN-METAL (description)	13
UTILITY	COMMUNICATION	82	TV	CABLE TV-UNDERGROUND	14
UTILITY	COMMUNICATION	20	FIBER	FIBER-OPTIC CABLE	14
UTILITY	COMMUNICATION	70	TELG	TELEGRAPH POLE	14
UTILITY	COMMUNICATION	69	TELBTH	TELEPHONE BOOTH	14
UTILITY	COMMUNICATION	68	TEL	TELEPHONE LINE-OVERHEAD	14
UTILITY	COMMUNICATION	67	TELU	TELEPHONE LINE-UNDERGROUND	14
UTILITY	COMMUNICATION	72	TELPED	TELEPHONE PEDESTAL	14
UTILITY	COMMUNICATION	71	TELP	TELEPHONE POLE	15
UTILITY	GAS	23	GASM	GAS METER	15
UTILITY	GAS	24	GASV	GAS VALVE	15
UTILITY	GAS	22	GAS	UNDERGRND GAS LINE	15
UTILITY	MANHOLE	107	MH	MANHOLE (description)	16
UTILITY	MANHOLE	33	MHELEC	MANHOLE-ELECTRIC	16
UTILITY	MANHOLE	36	MHSS	MANHOLE-SANITARY SEWER	16
UTILITY	MANHOLE	38	MHSD	MANHOLE-STORM DRAIN	16
UTILITY	MANHOLE	37	MHTEL	MANHOLE-TELEPHONE	16
UTILITY	MISC	10	CORE	DRILL HOLE	17
UTILITY	MISC	28	GUY	GUY WIRE ANCHOR	17
UTILITY	MISC	40	MISCAB	MISSILE CABLE	17
UTILITY	MISC	77	TOWER	TOWER FEATURE (description)	17
UTILITY	MISC	109	VALVE	VALVE (description)	17
UTILITY	POWER	14	ELECACC	ELECTRICAL ACCESS (description)	18
UTILITY	POWER	31	LIGHT	LIGHT POLE	18
UTILITY	POWER	45	PWRPED	POWER PEDESTAL	18
UTILITY	POWER	44	PP	POWER POLE	18
UTILITY	POWER	46	PWRX	POWER-OVERHEAD	18
UTILITY	POWER	43	POWER	POWER-UNDERGROUND	18
UTILITY	TRAFFIC	78	TRAF	TRAFFIC SIGNAL (description)	19
UTILITY	TRAFFIC	79	TRAFBOX	TRAFFIC/SIGNAL CONTROL (description)	19
UTILITY	WATER	19	FH	FIRE HYDRANT	20
UTILITY	WATER	96	SANSEW	SANITARY SEWER LINE	20
UTILITY	WATER	85	WATHYD	WATER HYDRANT	20
UTILITY	WATER	86	WATM	WATER METER	20
UTILITY	WATER	87	WATV	WATER VALVE	20
UTILITY	WATER	84	WATER	WATER-UNDERGROUND	20
UTILITY	WATER	88	WELL	WELL (description)	20

4.1.2 Survey Strip Map Survey Feature List (sorted by feature summary)

The following are the Features use within Survey strip. All features are in two categories; the first is the Feature Class and the second in the Feature Sub-class.

See **Appendix A for the symbology of each feature.

FEATURE CLASS	FEATURE SUB-CLASS	FEATURE ID	FEATURE NAME	FEATURE SUMMARY	Appendix A Page **
SURVEY	CONTROL	2	BM	BENCHMARK (description)	12
ROAD/RR	ROAD	102	BITCURB	BITUMINOUS CURB	8
NATURAL	LAND	3	BOB	BOTTOM OF BANK	5
NATURAL	LAND	4	BOS	BOTTOM OF SLOPE	5
MISC	DTM	127	BNDRY	BOUNDARY	3
MISC	DTM	25	GB	BREAKLINE-GRADE BREAK	3
STRUCTURE	MISC	6	BRCOR	BRIDGE CORNER	11
STRUCTURE	MISC	1	BLDG	BUILDING CORNER	11
UTILITY	COMMUNICATION	82	TV	CABLE TV-UNDERGROUND	14
BARRIER	FENCE	7	CATGRD	CATTLEGUARD (description)	1
STRUCTURE	MISC	92	ABUT	CONC ABUT/RET WALL (description)	11
ROAD/RR	ROAD	9	CONC	CONCRETE (description)	8
MISC	MISC	0	DEFAULT	DEFAULT FEATURE	4
UTILITY	MISC	10	CORE	DRILL HOLE	17
DRAINAGE	WATER	105	DROPR	DROP INLET-ROUND (description)	2
DRAINAGE	WATER	13	DROP	DROP INLET-SQUARE (description)	2
MISC	DTM	180	ISLAND	DTM ISLAND	3
MISC	DTM	122	OBSCURE	DTM OBSCURE AREA	3
ROAD/RR	SIGNS	53	CHEV	DUAL CHEVRON SIGN	10
ROAD/RR	ROAD	94	EOG	EDGE OF ROAD-GRAVEL	8
ROAD/RR	ROAD	15	EOP	EDGE OF ROAD-PAVEMENT	8
ROAD/RR	ROAD	106	EOT	EDGE OF ROAD-TRAIL	8
NATURAL	WATER	89	EDGEWAT	EDGE OF WATER	7
UTILITY	POWER	14	ELECACC	ELECTRICAL ACCESS (description)	18
MISC	MISC	256	ELVTXT	ELEV TEXT	4
DRAINAGE	CULVERT	11	CULVI	END OF PIPE/CUL INV (description)	2
BARRIER	FENCE	17	FENCE	FENCE (description)	1
UTILITY	COMMUNICATION	20	FIBER	FIBER-OPTIC CABLE	14
UTILITY	WATER	19	FH	FIRE HYDRANT	20
NATURAL	WATER	90	FLU	FLOWLINE-AGAINST FLOW	7
NATURAL	WATER	21	FL	FLOWLINE-WITH FLOW	7
UTILITY	GAS	23	GASM	GAS METER	15
UTILITY	GAS	24	GASV	GAS VALVE	15
BARRIER	FENCE	18	GATE	GATE (description)	1
MISC	DTM	27	GRND	GROUND SHOT	3
BARRIER	RAIL	26	GRRL	GUARDRAIL POINT-GRND	1
UTILITY	MISC	28	GUY	GUY WIRE ANCHOR	17
DRAINAGE	WATER	29	HEADG	HEADGATE (description)	2
NATURAL	WATER	95	HIWATER	HIGH WATER POINT	7
BARRIER	RAIL	98	JRRL	JURSEY RAIL POINT-GRND	1
UTILITY	POWER	31	LIGHT	LIGHT POLE	18
ROAD/RR	ROAD	32	MAIL	MAILBOX	8
UTILITY	MANHOLE	107	MH	MANHOLE (description)	16
UTILITY	MANHOLE	33	MHELEC	MANHOLE-ELECTRIC	16
UTILITY	MANHOLE	36	MHSS	MANHOLE-SANITARY SEWER	16
UTILITY	MANHOLE	38	MHSD	MANHOLE-STORM DRAIN	16
UTILITY	MANHOLE	37	MHTEL	MANHOLE-TELEPHONE	16
ROAD/RR	SIGNS	39	MILEP	MILE POST (description)	10
MISC	DTM	163	MISCDP	MISC DTM POINT (description)	3
MISC	DTM	162	MISCDL	MISC. DTM LINE (description)	3
MISC	NON DTM	35	MISCL	MISC. NON-DTM LINE (description)	4
MISC	NON DTM	34	MISCP	MISC. NON-DTM POINT (description)	4
UTILITY	MISC	40	MISCAB	MISSILE CABLE	17
MISC	MISC	140	PHOTO	PHOTOGRAPHY POINT	4
UTILITY	POWER	45	PWRPED	POWER PEDESTAL	18
UTILITY	POWER	44	PP	POWER POLE	18

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UTILITY	POWER	46	PWRX	POWER-OVERHEAD	18
UTILITY	POWER	43	POWER	POWER-UNDERGROUND	18
SURVEY	MISC	144	PM	PROJECT MARKER (description)	12
ROAD/RR	ROAD	100	PTW	PTW-CENTERLINE	8
SURVEY	R/W	55	RWPIN	R/W METAL PIN (description)	13
SURVEY	R/W	62	RWMA	R/W MON-ALUM (description)	13
SURVEY	R/W	54	RWMC	R/W MON-CONC (description)	13
SURVEY	R/W	61	RWREF	R/W REF PIN-METAL (description)	13
DRAINAGE	MISC	48	RIPRAP	RIPRAP BOUNDARY	2
ROAD/RR	RR	49	RRCL	RR CENTERLINE	9
ROAD/RR	RR	108	RRCL	RR CROSSING LIGHT	9
ROAD/RR	RR	52	RRSW	RR SWITCH	9
UTILITY	WATER	96	SANSEW	SANITARY SEWER LINE	20
ROAD/RR	ROAD	56	SHLD	SHOULDER	9
NATURAL	VEGETATION	57	SHRUB	SHRUB	6
ROAD/RR	SIGNS	58	SIGNM	SIGN - MULTI-POST (description)	10
ROAD/RR	SIGNS	59	SIGNS	SIGN - SINGLE-POST (description)	10
BARRIER	FENCE	60	SNOWF	SNOW FENCE (description)	1
SURVEY	MISC	143	SM	STATION MARKER (description)	12
STRUCTURE	TANK	65	TANK	STORAGE TANK-ROUND (description)	11
STRUCTURE	TANK	64	TANKSH	STORAGE TANK-SHAPE (description)	11
DRAINAGE	WATER	97	STRMDR	STORM DRAIN LINE	2
ROAD/RR	SIGNS	30	STID	STREET ID SIGN (description)	10
SURVEY	CONTROL	63	SURV	SURVEY MON (description)	12
UTILITY	COMMUNICATION	70	TELG	TELEGRAPH POLE	14
UTILITY	COMMUNICATION	69	TELBTH	TELEPHONE BOOTH	14
UTILITY	COMMUNICATION	68	TEL	TELEPHONE LINE-OVERHEAD	14
UTILITY	COMMUNICATION	67	TELU	TELEPHONE LINE-UNDERGROUND	14
UTILITY	COMMUNICATION	72	TELPED	TELEPHONE PEDESTAL	14
UTILITY	COMMUNICATION	71	TELP	TELEPHONE POLE	15
NATURAL	WATER	73	THALWEG	THALWEG OF STREAM	7
ROAD/RR	ROAD	66	CURB	TOP BACK OF CURB	9
NATURAL	LAND	74	TOB	TOP OF BANK	5
DRAINAGE	CULVERT	51	CULVT	TOP OF CULVERT	2
NATURAL	LAND	76	TOS	TOP OF SLOPE	5
UTILITY	MISC	77	TOWER	TOWER FEATURE (description)	17
UTILITY	TRAFFIC	78	TRAF	TRAFFIC SIGNAL (description)	19
UTILITY	TRAFFIC	79	TRAFBOX	TRAFFIC/SIGNAL CONTROL (description)	19
SURVEY	CONTROL	80	TRAV	TRAVERSE POINT (description)	12
NATURAL	VEGETATION	81	TREE	TREE (description)	6
NATURAL	VEGETATION	117	TREELN	TREE LINE- BOUNDARY	6
NATURAL	VEGETATION	137	TREEROW	TREE-ROW	6
ROAD/RR	SIGNS	41	2FACE	TWO FACED SIGN (description)	10
MISC	MISC	50	UHS	UNDERGOUND HAZARD SITE	4
UTILITY	GAS	22	GAS	UNDERGRND GAS LINE	15
UTILITY	MISC	109	VALVE	VALVE (description)	17
STRUCTURE	MISC	83	WALL	WALL (description)	11
UTILITY	WATER	85	WATHYD	WATER HYDRANT	20
UTILITY	WATER	86	WATM	WATER METER	20
UTILITY	WATER	87	WATV	WATER VALVE	20
UTILITY	WATER	84	WATER	WATER-UNDERGROUND	20
UTILITY	WATER	88	WELL	WELL (description)	20
NATURAL	WATER	103	WETLB	WETLAND BOUNDARY (description)	7

4.1.3 Photogrammetry Strip Map Survey Feature List (sorted by feature class)

The following are the Features use within Survey strip. All features are in two categories; the first is the Feature Class and the second in the Feature Sub-class.

See **Appendix B for the symbology of each feature.

FEATURE CLASS	FEATURE SUB-CLASS	FEATURE ID	FEATURE SUMMARY	Appendix B Page**
BARRIER	FENCE	7	CATTLEGUARD (description)	1
BARRIER	FENCE	17	FENCE (description)	1
BARRIER	FENCE	18	GATE (description)	1
BARRIER	FENCE	60	SNOW FENCE (description)	1
BARRIER	RAIL	26	GUARDRAIL POINT-GRND	1
BARRIER	RAIL	98	JURSEY RAIL POINT-GRND	1
DRAINAGE	CULVERT	11	END OF PIPE/CUL INV (description)	2
DRAINAGE	MISC	132	DITCH	2
DRAINAGE	WATER	105	DROP INLET-ROUND (description)	2
DRAINAGE	WATER	13	DROP INLET-SQUARE (description)	2
MISC	DTM	127	BOUNDARY	2
MISC	DTM	25	BREAKLINE-GRADE BREAK	2
MISC	DTM	180	DTM ISLAND	2
MISC	DTM	122	DTM OBSCURE AREA	2
NATURAL	VEGETATION	81	TREE (description)	3
NATURAL	VEGETATION	117	TREE LINE- BOUNDARY	3
NATURAL	VEGETATION	118	TREELINE (NON CUSTOM)	3
NATURAL	VEGETATION	137	TREE-ROW	3
NATURAL	WATER	111	ARROW	3
NATURAL	WATER	89	EDGE OF WATER	3
NATURAL	WATER	21	FLOWLINE-WITH FLOW	3
NATURAL	WATER	112	SWAMP	3
NATURAL	WATER	103	WETLAND BOUNDARY (description)	3
PHOTOGRAMMETRY	CONTOUR	150	CONTOUR - INDEX	4
PHOTOGRAMMETRY	CONTOUR	152	CONTOUR - INDEX DEPRESSION	4
PHOTOGRAMMETRY	CONTOUR	153	CONTOUR - INDEX OBS. DEPRESS.	4
PHOTOGRAMMETRY	CONTOUR	151	CONTOUR - INDEX OBSCURE	4
PHOTOGRAMMETRY	CONTOUR	157	CONTOUR - INTER. DEPRESSION	4
PHOTOGRAMMETRY	CONTOUR	158	CONTOUR - INTER. OBS. DEPRESS.	4
PHOTOGRAMMETRY	CONTOUR	156	CONTOUR - INTER. OBSCURE	4
PHOTOGRAMMETRY	CONTOUR	155	CONTOUR - INTERMEDIATE	4
PHOTOGRAMMETRY	CONTOUR	159	CONTOUR INTER. ANNOTATION	4
PHOTOGRAMMETRY	CONTROL	154	CONTOUR INDEX ANNOTATION	5
PHOTOGRAMMETRY	CONTROL	164	CONTROL POINT - FULL	5
PHOTOGRAMMETRY	CONTROL	165	CONTROL POINT - HORIZONTAL	5
PHOTOGRAMMETRY	CONTROL	145	CONTROL POINT - PASS	5
PHOTOGRAMMETRY	CONTROL	166	CONTROL POINT - VERTICAL	5
PHOTOGRAMMETRY	CONTROL	146	CONTROL POINT TEXT - FULL	5
PHOTOGRAMMETRY	CONTROL	147	CONTROL POINT TEXT - HORIZONTAL	5

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PHOTOGRAMMETRY	CONTROL	149	CONTROL POINT TEXT - PASS	5
PHOTOGRAMMETRY	CONTROL	148	CONTROL POINT TEXT - VERTICAL	5
PHOTOGRAMMETRY	DTM	119	MASS POINT - PHOTOGRAMMETRY	6
PHOTOGRAMMETRY	DTM	124	SPOT HEIGHT - PHOTOGRAMMETRY	6
PHOTOGRAMMETRY	IMA	133	BREAKLINE - IMA	7
PHOTOGRAMMETRY	IMA	134	DRAIN LINE - IMA	7
PHOTOGRAMMETRY	IMA	120	MASS POINT - IMA	7
PHOTOGRAMMETRY	IMA	121	MASS POINT FOR SINGLE PROFILE LINE_ IMA	7
PHOTOGRAMMETRY	IMA	123	OBSCURE AREA - IMA	7
PHOTOGRAMMETRY	IMA	126	RIDGE LINE - IMA	7
PHOTOGRAMMETRY	IMA	128	SINGLE PROFILE LINE - IMA	7
PHOTOGRAMMETRY	IMA	125	SPOT HEIGHT - IMA	7
PHOTOGRAMMETRY	IMA	129	VERTICAL FAULT - IMA	7
PHOTOGRAMMETRY	MISC	161	GRID LINE	8
PHOTOGRAMMETRY	MISC	170	GRID TICK	8
PHOTOGRAMMETRY	MISC	160	GRID TICK TEXT	8
PHOTOGRAMMETRY	MISC	190	TITLE BLOCK - MDT	8
PHOTOGRAMMETRY MISC	MISC	191	TITLE BLOCK - CONSULTANT	8
PHOTOGRAMMETRY	NON DTM	115	OBSCURE AREA (PLANIMETRIC)	8
PHOTOGRAMMETRY	NON DTM	131	SPOT HEIGHT TEXT - PHOTOGRAMMETRY	8
ROAD/RR	ROAD	9	CONCRETE (description)	9
ROAD/RR	ROAD	94	EDGE OF ROAD-GRAVEL	9
ROAD/RR	ROAD	15	EDGE OF ROAD-PAVEMENT	9
ROAD/RR	ROAD	106	EDGE OF ROAD-TRAIL	9
ROAD/RR	ROAD	130	GUTTER	9
ROAD/RR	ROAD	32	MAILBOX	9
ROAD/RR	ROAD	113	PAINTED LINE	9
ROAD/RR	ROAD	66	TOP BACK OF CURB	9
ROAD/RR	RR	49	RR CENTERLINE	10
ROAD/RR	RR	108	RR CROSSING LIGHT	10
ROAD/RR	RR	52	RR SWITCH	10
ROAD/RR	SIGNS	58	SIGN - MULTI-POST (description)	10
ROAD/RR	SIGNS	59	SIGN - SINGLE-POST (description)	10
STRUCTURE	MISC	6	BRIDGE CORNER	11
STRUCTURE	MISC	1	BUILDING CORNER	11
STRUCTURE	MISC	114	BUILDING FOUNDATION	11
STRUCTURE	MISC	92	CONC ABUT/RET WALL (description)	11
STRUCTURE	MISC	83	WALL (description)	11
STRUCTURE	TANK	65	STORAGE TANK-ROUND (description)	11
STRUCTURE	TANK	64	STORAGE TANK-SHAPE (description)	11
UTILITY	COMMUNICATION	69	TELEPHONE BOOTH	12
UTILITY	MANHOLE	107	MANHOLE (description)	12
UTILITY	MISC	28	GUY WIRE ANCHOR	12
UTILITY	MISC	116	PIPELINE	12
UTILITY	MISC	77	TOWER FEATURE (description)	12
UTILITY	MISC	109	VALVE (description)	12
UTILITY	POWER	31	LIGHT POLE	13
UTILITY	POWER	44	POWER POLE	13
UTILITY	POWER	135	UTILITY BOX	13
UTILITY	TRAFFIC	78	TRAFFIC SIGNAL (description)	13
UTILITY	WATER	19	FIRE HYDRANT	13

4.1.4 Photogrammetry Strip Map Survey Feature List (sorted by feature summary)

The following are the Features use within Survey strip. All features are in two categories; the first is the Feature Class and the second in the Feature Sub-class.

See **Appendix B for the symbology of each feature.

FEATURE CLASS	FEATURE SUB-CLASS	FEATURE ID	FEATURE SUMMARY	Appendix B Page **
NATURAL	WATER	111	ARROW	3
MISC	DTM	127	BOUNDARY	2
PHOTOGRAMMETRY	IMA	133	BREAKLINE - IMA	7
MISC	DTM	25	BREAKLINE-GRADE BREAK	2
STRUCTURE	MISC	6	BRIDGE CORNER	11
STRUCTURE	MISC	1	BUILDING CORNER	11
STRUCTURE	MISC	114	BUILDING FOUNDATION	11
BARRIER	FENCE	7	CATTLEGUARD (description)	1
STRUCTURE	MISC	92	CONC ABUT/RET WALL (description)	11
ROAD/RR	ROAD	9	CONCRETE (description)	9
PHOTOGRAMMETRY	CONTOUR	150	CONTOUR - INDEX	4
PHOTOGRAMMETRY	CONTOUR	152	CONTOUR - INDEX DEPRESSION	4
PHOTOGRAMMETRY	CONTOUR	153	CONTOUR - INDEX OBS. DEPRESS.	4
PHOTOGRAMMETRY	CONTOUR	151	CONTOUR - INDEX OBSCURE	4
PHOTOGRAMMETRY	CONTOUR	157	CONTOUR - INTER. DEPRESSION	4
PHOTOGRAMMETRY	CONTOUR	158	CONTOUR - INTER. OBS. DEPRESS.	4
PHOTOGRAMMETRY	CONTOUR	156	CONTOUR - INTER. OBSCURE	4
PHOTOGRAMMETRY	CONTOUR	155	CONTOUR - INTERMEDIATE	4
PHOTOGRAMMETRY	CONTROL	154	CONTOUR INDEX ANNOTATION	5
PHOTOGRAMMETRY	CONTOUR	159	CONTOUR INTER. ANNOTATION	4
PHOTOGRAMMETRY	CONTROL	164	CONTROL POINT - FULL	5
PHOTOGRAMMETRY	CONTROL	165	CONTROL POINT - HORIZONTAL	5
PHOTOGRAMMETRY	CONTROL	145	CONTROL POINT - PASS	5
PHOTOGRAMMETRY	CONTROL	166	CONTROL POINT - VERTICAL	5
PHOTOGRAMMETRY	CONTROL	146	CONTROL POINT TEXT - FULL	5
PHOTOGRAMMETRY	CONTROL	147	CONTROL POINT TEXT - HORIZONTAL	5
PHOTOGRAMMETRY	CONTROL	149	CONTROL POINT TEXT - PASS	5
PHOTOGRAMMETRY	CONTROL	148	CONTROL POINT TEXT - VERTICAL	5
DRAINAGE	MISC	132	DITCH	2
PHOTOGRAMMETRY	IMA	134	DRAIN LINE - IMA	7
DRAINAGE	WATER	105	DROP INLET-ROUND (description)	2
DRAINAGE	WATER	13	DROP INLET-SQUARE (description)	2
MISC	DTM	180	DTM ISLAND	2
MISC	DTM	122	DTM OBSCURE AREA	2
ROAD/RR	ROAD	94	EDGE OF ROAD-GRAVEL	9
ROAD/RR	ROAD	15	EDGE OF ROAD-PAVEMENT	9
ROAD/RR	ROAD	106	EDGE OF ROAD-TRAIL	9
NATURAL	WATER	89	EDGE OF WATER	3
DRAINAGE	CULVERT	11	END OF PIPE/CUL INV (description)	2

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BARRIER	FENCE	17	FENCE (description)	1
UTILITY	WATER	19	FIRE HYDRANT	13
NATURAL	WATER	21	FLOWLINE-WITH FLOW	3
BARRIER	FENCE	18	GATE (description)	1
PHOTOGRAMMETRY	MISC	161	GRID LINE	8
PHOTOGRAMMETRY	MISC	170	GRID TICK	8
PHOTOGRAMMETRY	MISC	160	GRID TICK TEXT	8
BARRIER	RAIL	26	GUARDRAIL POINT-GRND	1
ROAD/RR	ROAD	130	GUTTER	9
UTILITY	MISC	28	GUY WIRE ANCHOR	12
BARRIER	RAIL	98	JURSEY RAIL POINT-GRND	1
UTILITY	POWER	31	LIGHT POLE	13
ROAD/RR	ROAD	32	MAILBOX	9
UTILITY	MANHOLE	107	MANHOLE (description)	12
PHOTOGRAMMETRY	IMA	120	MASS POINT - IMA	7
PHOTOGRAMMETRY	DTM	119	MASS POINT - PHOTOGRAMMETRY	6
PHOTOGRAMMETRY	IMA	121	MASS POINT FOR SINGLE PROFILE LINE _ IMA	7
PHOTOGRAMMETRY	IMA	123	OBSCURE AREA - IMA	7
PHOTOGRAMMETRY	NON DTM	115	OBSCURE AREA (PLANIMETRIC)	8
ROAD/RR	ROAD	113	PAINTED LINE	9
UTILITY	MISC	116	PIPELINE	12
UTILITY	POWER	44	POWER POLE	13
PHOTOGRAMMETRY	IMA	126	RIDGE LINE - IMA	7
ROAD/RR	RR	49	RR CENTERLINE	10
ROAD/RR	RR	108	RR CROSSING LIGHT	10
ROAD/RR	RR	52	RR SWITCH	10
ROAD/RR	SIGNS	58	SIGN - MULTI-POST (description)	10
ROAD/RR	SIGNS	59	SIGN - SINGLE-POST (description)	10
PHOTOGRAMMETRY	IMA	128	SINGLE PROFILE LINE - IMA	7
BARRIER	FENCE	60	SNOW FENCE (description)	1
PHOTOGRAMMETRY	IMA	125	SPOT HEIGHT - IMA	7
PHOTOGRAMMETRY	DTM	124	SPOT HEIGHT - PHOTOGRAMMETRY	6
PHOTOGRAMMETRY	NON DTM	131	SPOT HEIGHT TEXT - PHOTOGRAMMETRY	8
STRUCTURE	TANK	65	STORAGE TANK-ROUND (description)	11
STRUCTURE	TANK	64	STORAGE TANK-SHAPE (description)	11
NATURAL	WATER	112	SWAMP	3
UTILITY	COMMUNICATION	69	TELEPHONE BOOTH	12
PHOTOGRAMMETRY MISC	MISC	191	TITLE BLOCK - CONSULTANT	8
PHOTOGRAMMETRY	MISC	190	TITLE BLOCK - MDT	8
ROAD/RR	ROAD	66	TOP BACK OF CURB	9
UTILITY	MISC	77	TOWER FEATURE (description)	12
UTILITY	TRAFFIC	78	TRAFFIC SIGNAL (description)	13
NATURAL	VEGETATION	81	TREE (description)	3
NATURAL	VEGETATION	117	TREE LINE- BOUNDARY	3
NATURAL	VEGETATION	118	TREELINE (NON CUSTOM)	3
NATURAL	VEGETATION	137	TREE-ROW	3
UTILITY	POWER	135	UTILITY BOX	13
UTILITY	MISC	109	VALVE (description)	12
PHOTOGRAMMETRY	IMA	129	VERTICAL FAULT - IMA	7
STRUCTURE	MISC	83	WALL (description)	11
NATURAL	WATER	103	WETLAND BOUNDARY (description)	3

4.2 Road Design Symbology

4.2.1 Title Sheet

Description	Cell Name	TX=	FT=	LC=	WT=	LV=
Area Map Text		7.5	71		1	
Project Info. & Design Data	MTITLE					
Section, Stations, Misc. Text		2.5	15		2	
State Map Text		5	64		1	
Township & Range		5	15		2	

4.2.2 Table of Contents, Notes, Linear and Level Data, Summaries and General Details

Description	Cell Name	TX=	FT=	LC=	WT=	LV=
Sheet Heading		12	71		1	
Main Heading		5	64		1	
Sub-Heading		5	15		2	
Data, Notes		2.5	15		1	
Frame Heading		5	15		4	2
Frame Sta. & Remarks		3.75	15		3	2
Frame Sub-Heading		2.5	15		2	2
Frame Data		2.5	15		1	4

4.2.3 Typical Section Sheets

Description	Cell Name	TX=	FT=	LC=	WT=	LV=
Sheet Heading		0.60	71		1	
Sub-Heading		0.25	15		2	
Text		0.125	15		1	

4.2.4 Strip Map

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=
Plan View						
Staked C/L				0	3	1
Staked C/L Curve Data & Annotation				0	3	2
Design C/L				0	3	3
Design C/L Curve Data & Annotation				0	3	4
Detour C/L				0	3	5
Detour C/L Curve Data & Annotation				0	3	6
Topography Text		2	15		1	7
Traverse Line Data & Annotation				0	3	9
RipRap Areas & Slope Protection				0, #	2	10
New culvert, Irrigation Features, Bridges				#	2	11
New Approaches (Cells & Line Work)	APP			0	2	13
Alternate C/L				0	3	14
Alternate C/L Curve Data & Annotation				0	3	15
North Arrow	NA or NAR					17
Township & Range		5	15		2	17
Section Text		4	15		1	17
New Guardrail				#	2	20
New Sidewalk				2	1	21
New Curb/Gutter				#	1	22
New Fences, Gates, Cattle Guards				#	2	23
Cold Milling Areas (Shape)				0	2	24
Additional Shoulder Line				2	2	28
Road Designer Placed Existing R/W				0	1	29
Road Designer Placed Suggested R/W				6	3	32
Construction Limits – CUT				2	2	33
Construction Limits – FILL				0	2	33
Construction Limits – Transition				1	2	33
Temporary Construction Limits (e.g. Detour Limits)					2	34
Utility Conflicts Call-Outs		3	16	0	2	41
Erosion Control Data						43
Wetland Area Note		3	15	0	2	44
Core Hole (Plan View)		3	16	0	2	45
Wetland Boundary (Existing Areas)				#	2	46

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Wetland Hatching (Existing Areas)				2	0	47	
Wetland Impacts Boundary				0	2	48	
Wetland Hatching (Impacted Area)				0	2	49	
Pattern Lines				0	0	60	%
Geopak Sheet Clips						62	%
Super Elevation Shapes						63	%
<i>Profile View</i>							
Profile Reference Line						50	
Soil Logs		3	16		2	45	
Ground Line				0	1	51	%
Grade Line				0	3	52	%
Grades		3	16		2	53	%
Vertical Curve Data		3	16		2	53	%
Vertical Curve Control Circles						54	%
Pipes, Box Culvert, Siphon						55	
Subexcavation						56	

* See Chapter on Levels

% Done Within GEOPAK

Custom Line Style See Chapter - Custom Line Styles

4.2.5 Plan Profile Sheets

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=
Plan View						
Beg/End Project Note		5	15		2	4
Table Listing for Urban Projects (e.g. Curb Opening, Curb Ramps)		3	15		2	8
Utility X-ing Notes		3	15		2	9
Culvert, Bridge, Irrigation, Storm Drain Notes		3	15		2	10
Standard Sheet Cell	MPLAN					
Profile View						
Grid Station & Elevation		4	16		2	55
Approach Notes		3	16		2	12
Notes(e.g. Inlet & Outlet Ditches)		3	16		2	55
Line Work (e.g. Guardrail & Sidewalk)		3	16	0	2	55

* See Chapter on Levels

4.2.6 Working Cross Section File

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=	
Existing Ground				0	3	2	%
Sub-Grade Elevation Text		0.3	16		2	4	%
Existing ground Elevation Text		0.3	16		1	5	%
Cut, Fill Slopes & Ditch Elevation Text		0.3	16		1	6	%
Ditch Elevation Text		0.3	16		1	7	%
Catch Point Elevation Text		0.3	16		1	8	%
Proposed Surface Top Lift Lines				0	0	9	%
Proposed Sub-Grade Lines				2	3	10	%
BackSlope Rounding Lines				2	3	10 or 11	%
Default, Error & Marked point Text		0.3	16		0	61	%
Cross Slope Text		0.3	16		0	62	%
New Approach Subgrades				2	2	12	
Drainage & Grading Notes	#	0.3	16		1	13	
Drainage & Grading Items	#	0.3	16		1	14	
Row, Permits & Easement Notes	#	0.3	16		1	15	%
Row, Permits & Easement Cells	#				1	16	%
Utilities Notes	#	0.3	16		1	17	%
UG - Utilities Cells	#				1	18	%
OH - Utilities Cells	#				1	19	%
Fence	#				1	20	%
Earth Work Shapes				0	0	58	
Seeding Templates				2,3	2,3	59	%
GPK X-Section Cell						63	

See Chapter on Cells

4.2.7 Cross Section Sheet

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=	
Station Text		0.6	16		3	11	%
Offset Text		0.4	16		3	11	%
Elevation Text		0.4	16		3	11	%
Volume text		0.4	16		3	18	%
Project & Sheet Number Text		0.4	16		1	1	#

From Seed File

% Done Within GEOPAK

4.2.8 Erosion Control Plan Sheet

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=
Erosion Control leaders						16
Erosion Control Cells						32

4.3 Right of Way Symbology

4.3.1 Strip Map

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=	CO=
Existing R/W				0	1	30	
Property Lines				0	1	34	
New R/W				7	3	31	
Section Line (Surveyed)				3	2	16	Green
Section Line (Not Surveyed)				3	2	16	White
Interior Lines (1/16th)				3	2	35	White
Railroad R/W				6	2	40	
New Easement				0	3	31	
Construction Permits				0	3	36	

4.4 Right-of-Way Symbology

DESCRIPTION	FILE	LEVEL	COLOR	STYLE	WEIGHT
Existing R/W Lines	Strip Map	30	-	0	1
Property Lines	Strip Map	34	-	0	1
Ownership Dots	Plan Sheet	34	-	1	5
Proposed R/W Lines	Strip Map	31	-	7	3
Section Lines (Surveyed)	Strip Map	16	2	3	2
Section Lines (Not Surveyed)	Strip Map	16	0	3	2
Interior Section Lines (16 th)	Strip Map	35	0	3	2
Existing Railroad R/W Lines	Strip Map	40	-	6	2
Proposed Easement Lines	Strip Map	31 or 38	-	0	3
Proposed Construction Permit Lines	Strip Map	36	-	0	3

4.5 Signing Symbology

4.5.1 Sign Location and Specification sheets annotation

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=	CO=
Sheet Heading (Project #/Sheet # in upper right-hand corner)		TH=4 TW=Variable	15		2	25	
Main Heading							
Sub-Heading (Designer/Checker box in lower left hand corner)		3.75	15		1	25	
Data , Notes (Sign information)		3.75	15		1	25	

4.5.2 Summary sheets annotation

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=	CO=
Sheet Heading (Project #/Sheet # in upper right-hand corner)		TH=4 TW=Variable	15		2	25	
Main Heading							
Sub-Heading (Designer/Checker box in lower left hand corner)		3.75	15		1	25	
Data, Notes (Sign information)		TH=4.25 TW=3.25	15		1	25	

4.5.3 Plan and Detail sheets annotation

Description	Cell Name	TX=	FT=	LC=	WT=	* LV=	CO=
Sheet Heading (Project #/Sheet # in upper right-hand corner)		TH=4 TW=Variable	15		2	25	
Main Heading (Title block in lower right-hand corner)		7.5	15		2	25	
Sub-Heading (Designer/Checker box in lower left hand corner)		3.75	15		1	25	
Data , Notes (Sign information)		3.75	15		1	25	

4.6 Bridge Symbology

4.6.1 Title/Q Sheet

Description	Cell Name	TX= mm	FT=	LC=	WT=	* LV=	CO=
Heading (Montana Department of Transportation)		9	15	0	5	2	0
Sub-Heading (Bridge Plans and Quantities)		9	15	0	5	2	0
Project No. (Federal Aid Project No.)		12	15	0	6	2	0
Project Name		9	15	0	5	2	0
County Name		7	15	0	4	2	0
List of Drawings (Title)		6	15	0	3	2	0
List of Drawings (Sub-Titles)		5	15	0	2	2	0
List of Drawings (Data)		4	15	0	1	2	0
Table Title (Estimated Bridge Plan Quantities)		6	15	0	2	2	0
Table Sub Titles and Data **		4	15	0	1	2	0

** When placing data in the table, shift all data to the left for future As Built quantities to be added to the right.

4.6.2 Drawing Sheet

Description	Cell Name	TX= mm	FT=	LC=	WT=	* LV=	CO=
Sheet Heading		5	15	0	3	2	0
Main Heading		5	15	0	3	2	0
Sub-Heading		5	15	0	3	2	0
Data & Notes		3	16	0	1	2	0

4.6.3 Line Symbology

Description	Cell Name	TX= mm	FT=	LC=	WT=	* LV=	CO=
Object Lines				0	3	1	
Object Lines too close together to avoid blurring at heavier wt.				0	2	1	
Center Lines				4 or 7	0	1	0
Dimension Lines- extension and witness lines, note leaders				0	0	2	0
Hidden Lines				2 or 5	1	1	
Riprap lines				0	1	3	
Contour Lines @ major intervals				0	3	4	
Contour Lines @ minor intervals				0	1	4	
Profile lines – 6 m left profile				4	1	4	
Profile lines – centerline profile				0	1	4	
Profile lines – 6 m right profile				2	1	4	
Reinforcement Lines				0	1	5	
Section patterning					0	1	