

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
P. O. BOX 94245
BATON ROUGE LOUISIANA 70804-9245

LOCATION AND SURVEY SECTION
SURVEY AUTOMATION

**SURVEY FEATURE CODE GUIDE
BOOK**

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LOCATION & SURVEY ASSISTANT ADMINISTRATOR
DECEMBER 1, 1999
REVISED FEBRUARY 1, 2002
REVISED JANUARY 1, 2005
REVISED OCTOBER 1, 2005
REVISED JANUARY 3, 2006
REVISED DECEMBER 1, 2008
REVISED JANUARY 30, 2009
REVISED DECEMBER 1, 2010
REVISED DECEMBER 1, 2011

Listing of changes made to feature codes for year 2011

Code 184, Bridge Pile Point Square added.

Code 185, Bridge Pile Point renamed to Bridge Pile Point Round.

Code 580, Property Corner, changed observational requirements to require fine measure mode and one full position measured (F1, F2, F2, F1).

Code 581, Right Of Way Monument, changed observational requirements to require fine measure mode and one full position measured (F1, F2, F2, F1).

Code 582, Section Corner, changed observational requirements to require fine measure mode and one full position measured (F1, F2, F2, F1).

Code 583, Fence Corner As Property corner, changed observational requirements to require fine measure mode and one full position measured (F1, F2, F2, F1).

Underground utility lines;

Codes 600 through 607, depth determination method attribute added to start of line.

Codes 608 and 609, depth determination method attribute added to start of line.

Codes 635 through 638, depth determination method attribute added to start of line.

Codes 645 and 646, depth determination method attribute added to start of line.

Codes 660 through 667, depth determination method attribute added to start of line.

Codes 700 through 707, depth determination method attribute added to start of line.

Codes 720 through 723, depth determination method attribute added to start of line.

Codes 740 through 745, depth determination method attribute added to start of line.

Codes 760 through 763, depth determination method attribute added to start of line.

Codes 810 through 815, depth determination method attribute added to start of line.

Codes 837 and 838, depth determination method attribute added to start of line.

Code 841, depth determination method attribute added to start of line.

Code 842, depth determination method attribute added to start of line.

Codes 843 and 844, depth determination method attribute added to start of line.

Codes 867 and 868, depth determination method attribute added to start of line.

Codes 870 through 877, depth determination method attribute added to start of line.

Codes 885 and 886, depth determination method attribute added to start of line.

Codes 910 through 917, depth determination method attribute added to start of line.

Codes 930 through 937, depth determination method attribute added to start of line.

Codes 938 and 939, depth determination method attribute added to start of line.

Codes 950 through 957, depth determination method attribute added to start of line.

Codes 990 through 993, depth determination method attribute added to start of line.

Listing of changes made to feature codes for year 2010

Codes 47 through 49 added, crown of road.
Codes 55 through 59 added, pavement edge.
Codes 90 through 92 added, crash wall base
Codes 93 through 95 added, crash wall top
Codes 134 through 139 added, bridge deck gutter ling
Codes 168 and 169 added, top of bridge bent cap
Code 326 added, scanned elevation shot
Code 634 added, television test hole
Code 689 added, power test hole
Code 773 added, gas test hole
Code 774 added, pipeline test hole
Code 828 added, sewer test hole
Code 909 added, telephone test hole
Code 983 added, water test hole

Listing of changes made to feature codes for January 30, 2009

Code 4, temporary benchmark, added pt.name attribute and added comments.

Code 6, topo point, changed observational requirements to require fine measure mode and one full position measured (F1, F2, F2, F1).

Codes 148 and 149 added, bridge deck joint.

Code 246 added, top of water elevation.

Codes 250 through 255, pipe culvert invert, to remain but are superseded with sized pipe codes.

Codes 260 through 263, pipe crossdrain invert, to remain but are superseded with sized pipe codes.

Codes 265 through 268, box culvert invert, to remain but are superseded with sized box codes.

Codes 270 through 273, box crossdrain invert, to remain but are superseded with sized box codes.

Codes 331 through 334 added, water bottom breakline.

Codes 398 and 399 added, rip rap.

Code 469 added, finished floor elevation.

Code 584 added, calculated right of way corner.

Codes 608 and 609 added, multiple underground tv cable.

Codes 614 and 615 added, multiple aboveground tv cable.

Code 633 added, tv utility marker.

Codes 635 through 638 added, underground tv fiber optic line.

Codes 640 through 643 added, aboveground tv fiber optic line.

Codes 645 and 646 added, multiple underground tv fiber optic line.

Codes 648 and 649 added, multiple aboveground tv fiber optic line.

Code 659 added, electric utility marker.

Code 739 added, gas utility marker.

Code 772 added, pipeline utility marker.

Codes 800 through 807, sewer line invert, to remain but are superseded with sized pipe codes.

Code 827 added, sewer utility marker.

Codes 837 and 838 added, underground traffic signal power.

Codes 839 and 840 added, aboveground traffic signal power.

Code 841 added, underground traffic interconnect line.

Code 842 added, underground traffic loop detector line.

Codes 843 and 844 added, underground traffic fiber optic line.

Codes 845 and 846 added, aboveground traffic fiber optic line.

Code 847 added, dynamic message sign.

Code 848 added, dynamic message sign support.

Code 849 added, miscellaneous traffic pole.

Code 860 renamed from traffic light standard to light standard.

Code 861 renamed from traffic light standard power vault to light standard power vault.

Code 864 added, traffic pull box.

Code 908 added, telephone utility marker.

Codes 938 and 939 added, multiple underground telephone fiber optic line.

Codes 944 and 945 added, multiple aboveground telephone fiber optic line.

Code 982 added, water utility marker.

Code 1025, aboveground storage tank (point), added capacity attribute.
Code 1026, aboveground storage tank (closed), added capacity attribute.
Code 1035, underground storage tank (point), added capacity attribute.
Code 1036, underground storage tank (closed), added capacity attribute.
Codes between 2000 and 2285 added, round pipe culvert invert (sized).
Codes between 2300 and 2583 added, round pipe crossdrain invert (sized).
Codes between 2600 and 3035 added, arch pipe culvert invert (sized).
Codes between 3040 and 3258 added, arch pipe crossdrain invert (sized).
Codes between 5000 and 5203 added, box culvert invert centerline (sized).
Codes between 5300 and 5503 added, box culvert crossdrain invert centerline (sized).
Codes between 8000 and 8233 added, round sewer line invert (sized).
Code 1046 added, miscellaneous tower (point)
Code 1047 added, miscellaneous tower guy anchor

Listing of changes made to feature codes for December 1, 2008

Codes 189 through 194 added, bridge pile (line).
Codes 195 through 199 added, bridge footing.
Code 544 added, barricade post.
Codes 547 through 549 added, footing.

TABLE OF CONTENTS

PART 1

FEATURE CODE LIST

PART 2

FIELD GUIDE

PART 3

CONTROL CODE DETAILS

PART 4

FEATURE CODE DETAILS

PART 1
FEATURE CODE
LIST

| FEA. NO. | FEATURE DESCRIPTION | ATTRIBUTES | | | | | OBJECT TYPE | DTM FEATURE |
|--|---|------------|---------|---------|---------|--------|-------------|-------------|
| | | INFO 1 | INFO 2 | INFO 3 | INFO 4 | INFO 5 | | |
| SURVEY CONTROL | | | | | | | | |
| * No attribute prompting by data collector | | | | | | | | |
| 1 * | PRIMARY CONTROL POINT (KNOWN X,Y,Z) | SIZE | MATRL | PT.NAME | | | POINT | DNU |
| 2 * | HORIZONTAL CONTROL POINT (KNOWN X,Y) | SIZE | MATRL | PT.NAME | | | POINT | DNU |
| 3 | CONTROL BENCHMARK (KNOWN Z) | SIZE | MATRL | PT.NAME | | | POINT | DNU |
| 4 | TEMPORARY BENCHMARK | SIZE | MATRL | WHERE | PT.NAME | | POINT | DNU |
| 5 * | TRAVERSE POINT | SIZE | MATRL | | | | POINT | DNU |
| 6 * | TOPO POINT | SIZE | MATRL | | | | POINT | DNU |
| 7 | CONTROL POINT REFERENCE MARK | SIZE | MATRL | WHERE | | | POINT | DNU |
| 8 | PHOTO TARGET | SIZE | MATRL | | | | POINT | DNU |
| 9 | TRAVERSE CLOSING POINT | PT.NAME | | | | | POINT | DNU |
| 20 | FIELD SURVEY POINT OF CURVATURE (PC) | SIZE | MATRL | | | | POINT | DNU |
| 21 | FIELD SURVEY POINT OF INTERSECTION (PI) | SIZE | MATRL | | | | POINT | DNU |
| 22 | FIELD SURVEY POINT OF TANGENCY (PT) | SIZE | MATRL | | | | POINT | DNU |
| 23 | FIELD SURVEY POINT ON TANGENT (POT) | SIZE | MATRL | | | | POINT | DNU |
| 24 | VERIFICATION OBSERVATION POINT | PT.NAME | | | | | POINT | DNU |
| 25 - 30 | FIELD SURVEY ALIGNMENT 1 - 6 | | | | | | LINE | DNU |
| ROADWAY | | | | | | | | |
| 47 - 54 | CROWN OF ROAD 1 - 8 | OWNER | NUMBER | RD.NAME | MATRL | | LINE | BREAK |
| 55 - 69 | PAVEMENT EDGE 1 - 15 | MATRL | | | | | LINE | BREAK |
| 70 - 79 | SHOULDER EDGE 1 - 10 | MATRL | | | | | LINE | BREAK |
| 80 - 89 | SLOPE TOE 1 - 10 | | | | | | LINE | BREAK |
| 90 - 92 | CRASH WALL BASE 1 - 3 | MATRL | | | | | LINE | BREAK |
| 93 - 95 | CRASH WALL TOP 1 - 3 | MATRL | | | | | LINE | BREAK |
| CURB AND GUTTER | | | | | | | | |
| 100 - 119 | CURB 1 - 20 | MATRL | TYPE | | | | LINE | BREAK |
| 120 - 127 | GUTTER 1 - 8 | MATRL | TYPE | | | | LINE | BREAK |
| BRIDGE | | | | | | | | |
| 130 - 133 | CROWN OF BRIDGE DECK 1 - 4 | MATRL | NUMBER | | | | LINE | DNU |
| 134 - 139 | BRIDGE DECK GUTTER LINE 1 - 6 | MATRL | | | | | LINE | DNU |
| 140 - 147 | BRIDGE DECK EDGE 1 - 8 | MATRL | | | | | LINE | DNU |
| 148 - 149 | BRIDGE DECK JOINT 1 - 2 | MATRL | | | | | LINE | DNU |
| 150 - 159 | BRIDGE CURB 1 - 10 | MATRL | TYPE | | | | LINE | DNU |
| 160 - 167 | BRIDGE RAIL 1 - 8 | MATRL | | | | | LINE | DNU |
| 168 - 169 | TOP OF BRIDGE BENT CAP 1 - 2 | MATRL | | | | | LINE | DNU |
| 170 - 173 | BRIDGE HEADWALL TOP CENTERLINE 1 - 4 | WIDTH | MATRL | | | | LINE | BREAK |
| 175 - 178 | BRIDGE WINGWALL TOP CENTERLINE 1 - 4 | WIDTH | MATRL | | | | LINE | BREAK |
| 180 - 183 | GUARDRAIL CENTERLINE 1 - 4 | MATRL | | | | | LINE | DNU |
| 184 | BRIDGE PILE POINT SQUARE | SIZE | MATRL | | | | POINT | DNU |
| 185 | BRIDGE PILE POINT ROUND | DIA | MATRL | | | | POINT | DNU |
| 186 | BRIDGE PILE C (CLOSED) | MATRL | | | | | LINE | DNU |
| 187 | BRIDGE PILE 1 (LINE) | DIA | MATRL | NO.PILE | | | LINE | DNU |
| 189 - 194 | BRIDGE PILE 2 - 6 (LINE) | DIA | MATRL | NO.PILE | | | LINE | DNU |
| 188 | BOTTOM OF STRINGER | | | | | | POINT | DNU |
| 195 - 199 | BRIDGE FOOTING | MATRL | | | | | LINE | BREAK |
| WATER BODY | | | | | | | | |
| 200 - 203 | WATER BODY CENTERLINE 1 - 4 | INFO | | | | | LINE | BREAK |
| 210 - 217 | WATER BODY BANK 1 - 8 | | | | | | LINE | BREAK |
| 220 - 227 | WATER'S EDGE 1 - 8 | WB.NAME | | | | | LINE | BREAK |
| 230 - 233 | SWAMP LINE 1 - 4 | | | | | | LINE | BREAK |
| 240 - 243 | MARSH LINE 1 - 4 | | | | | | LINE | BREAK |
| 245 | HIGH WATER MARK | INFO | | | | | POINT | DNU |
| 246 | TOP OF WATER ELEVATION | INFO | | | | | POINT | DNU |
| DRAINAGE STRUCTURE | | | | | | | | |
| 250 - 255 | PIPE CULVERT INVERT 1 - 6 | SIZE | MATRL | | | | LINE | DNU |
| 260 - 263 | PIPE CROSSDRAIN INVERT 1 - 4 | SIZE | MATRL | | | | LINE | DNU |
| 265 - 268 | BOX CULVERT INVERT 1 - 4 (CLOSED) | MATRL | NO.OPEN | WIDTH | HEIGHT | | LINE | DNU |
| 270 - 273 | BOX CROSSDRAIN INVERT 1 - 4 (CLOSED) | MATRL | NO.OPEN | WIDTH | HEIGHT | | LINE | DNU |
| 275 - 278 | DRAINAGE HEADWALL TOP CENTERLINE 1 - 4 | WIDTH | MATRL | | | | LINE | BREAK |
| 280 - 283 | DRAINAGE WINGWALL TOP CENTERLINE 1 - 4 | WIDTH | MATRL | | | | LINE | BREAK |
| 285 | CATCH BASIN TOP 1 (POINT) | SIZE | MATRL | | | | POINT | REG |
| 286 | CATCH BASIN TOP 2 (CLOSED) | MATRL | | | | | LINE | BREAK |
| 290 | DROP INLET TOP 1 (POINT) | SIZE | MATRL | | | | POINT | REG |
| 291 | DROP INLET TOP 2 (CLOSED) | MATRL | | | | | LINE | BREAK |
| 295 | DRAINAGE MANHOLE TOP | SIZE | MATRL | | | | POINT | DNU |
| 296 | DRAINAGE BOTTOM INVERT SHOT | | | | | | POINT | DNU |
| 297 | DRAINAGE PIPE INVERT SHOT | SIZE | MATRL | | | | POINT | DNU |

| DTM | | | | | | | | |
|-----------------------|-------------------------------------|--------|--------|----------|------|----------|-------|-------|
| 300 - 324 | DTM BREAKLINE 1 - 25 | | | | | | LINE | BREAK |
| 325 | ELEVATION SHOT | | | | | | POINT | REG |
| 326 | SCANNED ELEVATION SHOT | | | | | | POINT | REG |
| 330 | WATER BOTTOM SHOT | | | | | | POINT | REG |
| 331 - 334 | WATER BOTTOM BREAKLINE 1 - 4 | | | | | | LINE | BREAK |
| DITCH AND LEVEE | | | | | | | | |
| 335 - 339 | FLOOD PROTECTION STRUCTURE | MATRL | WIDTH | MOVE | INFO | | LINE | BREAK |
| 340 - 347 | DITCH TOP 1 - 8 | | | | | | LINE | BREAK |
| 350 - 357 | DITCH TOE 1 - 8 | MATRL | | | | | LINE | BREAK |
| 360 - 367 | DITCH CENTERLINE 1 - 8 | MATRL | | | | | LINE | BREAK |
| 370 - 377 | DITCH BACKSLOPE 1 - 8 | | | | | | LINE | BREAK |
| 380 - 387 | LEVEE TOP 1 - 8 | MATRL | | | | | LINE | BREAK |
| 390 - 397 | LEVEE TOE 1 - 8 | | | | | | LINE | BREAK |
| 398 - 399 | RIP RAP 1 - 2 | MATRL | | | | | LINE | BREAK |
| TREES | | | | | | | | |
| 400 - 405 | WOODS EDGE 1 - 6 | INFO | | | | | LINE | DNU |
| 410 - 415 | TREE LINE 1 - 6 | INFO 1 | INFO 2 | | | | LINE | DNU |
| 420 - 425 | HEDGE 1 - 6 | TYPE | INFO | | | | LINE | DNU |
| 430 - 433 | SHRUBBERY BED 1 - 4 | INFO | | | | | LINE | DNU |
| 434 | SHRUBBERY BOX (CLOSED) | MATRL. | | | | | LINE | DNU |
| 435 | SHRUBBERY BOX (POINT) | MATRL. | SIZE | | | | POINT | DNU |
| 436 | TREE | DIA | TYPE | | | | POINT | DNU |
| 437 | BUSH | TYPE | | | | | POINT | DNU |
| 438 | TREE CLUSTER | INFO | | | | | POINT | DNU |
| BUILDING IMPROVEMENTS | | | | | | | | |
| 440 - 449 | BUILDING ON SLAB 1 - 10 | MATRL | USE | MINORITY | INFO | OVERHANG | LINE | BREAK |
| 450 - 459 | BUILDING ON PIERS 1 - 10 | MATRL | USE | MINORITY | INFO | OVERHANG | LINE | DNU |
| 460 - 465 | DRIVEWAY 1 - 6 | MATRL | | | | | LINE | BREAK |
| 469 | FINISHED FLOOR ELEVATION | INFO | | | | | POINT | DNU |
| 470 - 475 | SIDEWALK 1 - 6 | MATRL | | | | | LINE | BREAK |
| 480 - 485 | PARKING LOT 1 - 6 | MATRL | | | | | LINE | BREAK |
| 490 - 495 | SLAB 1 - 6 | MATRL | | | | | LINE | BREAK |
| 500 - 503 | STAIRS 1 - 4 | MATRL | | | | | LINE | DNU |
| 505 - 508 | STEPS 1 - 4 | MATRL | | | | | LINE | BREAK |
| 510 - 513 | PIER 1 - 4 | MATRL | | | | | LINE | DNU |
| 515 - 518 | RETAINING WALL TOP CENTERLINE 1 - 4 | WIDTH | MATRL | | | | LINE | BREAK |
| 520 - 521 | PORCH ON SLAB 1 - 2 | MATRL | | | | | LINE | BREAK |
| 522 - 523 | PORCH ON PIERS 1 - 2 | MATRL | | | | | LINE | DNU |
| 525 - 526 | ROOF OVERHANG 1 - 2 | MATRL | | | | | LINE | DNU |
| 530 - 531 | BASE OF WALL 1 - 2 | WIDTH | HEIGHT | MATRL | INFO | | LINE | BREAK |
| 535 - 536 | CANOPY 1 - 2 | MATRL | | | | | LINE | DNU |
| 537 | CANOPY SUPPORT | SIZE | MATRL | | | | POINT | DNU |
| 540 - 541 | BARRICADE 1 - 2 | HEIGHT | MATRL | INFO | | | LINE | DNU |
| 544 | BARRICADE POST | SIZE | MATRL | | | | POINT | DNU |
| 545 - 549 | FOOTING 1 - 5 | MATRL | | | | | LINE | BREAK |
| FENCES | | | | | | | | |
| 550 - 557 | FENCE LINE 1 - 8 | HEIGHT | MATRL | INFO | | | LINE | DNU |
| 560 - 563 | GATE 1 - 4 | HEIGHT | MATRL | | | | LINE | DNU |
| 565 - 566 | CATTLE GUARD TOP 1 - 2 (CLOSED) | MATRL | | | | | LINE | DNU |
| 570 | FENCE POST | MATRL | SIZE | | | | POINT | DNU |
| PROPERTY MONUMENTS | | | | | | | | |
| 580 | PROPERTY CORNER | SIZE | MATRL | INFO | | | POINT | DNU |
| 581 | RIGHT OF WAY MONUMENT | SIZE | MATRL | OWNER | | | POINT | DNU |
| 582 | SECTION CORNER | SIZE | MATRL | INFO | | | POINT | DNU |
| 583 | FENCE CORNER AS PROPERTY CORNER | SIZE | MATRL | | | | POINT | DNU |
| 584 | CALCULATED RIGHT OF WAY CORNER | INFO1 | INFO2 | | | | POINT | DNU |
| 585 | CALCULATED PROPERTY CORNER | INFO1 | INFO2 | | | | POINT | DNU |
| 586 | PREDICTED PROPERTY CORNER | INFO1 | INFO2 | | | | POINT | DNU |
| 590 - 595 | APPARENT PROPERTY LINE 1 - 6 | INFO1 | INFO2 | | | | LINE | DNU |

| TELEVISION UTILITY | | | | | | | | |
|--------------------------|---|--------|---------|---------|---------|-------|--|------------|
| 600 - 607 | UNDERGROUND TV CABLE 1 - 8 | OWNER | DEPTH | | | | | LINE DNU |
| 608 - 609 | MULTIPLE UNDERGROUND TV CABLE 1 - 2 | OWNER | DEPTH | NO.LINE | SIZE | | | LINE DNU |
| 610 - 613 | ABOVEGROUND TV CABLE 1 - 4 | OWNER | | | | | | LINE DNU |
| 614 - 615 | MULTIPLE ABOVEGROUND TV CABLE 1 - 2 | OWNER | NO.LINE | SIZE | | | | LINE DNU |
| 620 - 621 | UNDERGROUND TV SINGLE SERVICE 1 - 2 | | | | | | | LINE DNU |
| 625 - 626 | ABOVEGROUND TV SINGLE SERVICE 1 - 2 | | | | | | | LINE DNU |
| 630 | TV PEDESTAL | | | | | | | POINT DNU |
| 631 | TV MANHOLE TOP | | | | | | | POINT DNU |
| 632 | TV MANHOLE BOTTOM INVERT SHOT | | | | | | | POINT DNU |
| 633 | TV UTILITY MARKER | OWNER | INFO | | | | | POINT DNU |
| 634 | TV TEST HOLE | OWNER | DEPTH | NO.LINE | INFO1 | INFO2 | | POINT DNU |
| 635 - 638 | UNDERGROUND TV FIBER OPTIC 1 - 4 | OWNER | DEPTH | SIZE | | | | LINE DNU |
| 640 - 643 | ABOVEGROUND TV FIBER OPTIC 1 - 4 | OWNER | SIZE | | | | | LINE DNU |
| 645 - 646 | MULTIPLE UNDERGROUND TV FIBER OPTIC 1 - 2 | OWNER | DEPTH | NO.LINE | SIZE | | | LINE DNU |
| 648 - 649 | MULTIPLE ABOVEGROUND TV FIBER OPTIC 1 - 2 | OWNER | NO.LINE | SIZE | | | | LINE DNU |
| ELECTRICITY UTILITY | | | | | | | | |
| 650 | POWER POLE | DIA | MATRL | OWNER | LIGHT | TRANS | | POINT DNU |
| 651 | POWER POLE DEADMAN | | | | | | | POINT DNU |
| 652 | COMBINATION POLE | DIA | MATRL | OWNER | LIGHT | TRANS | | POINT DNU |
| 653 | GUY POLE | SIZE | MATRL | | | | | POINT DNU |
| 654 | POWER JUNCTION BOX | | | | | | | POINT DNU |
| 655 | POWER VAULT | SIZE | MATRL | | | | | POINT DNU |
| 656 | POWER TRANSFORMER | SIZE | | | | | | POINT DNU |
| 657 | POWER TRANSMISSION TOWER | MATRL | NO.LEGS | OWNER | | | | CLOSED DNU |
| 658 | POWER DROP | | | | | | | POINT DNU |
| 659 | ELECTRIC UTILITY MARKER | OWNER | INFO | | | | | POINT DNU |
| 660 - 667 | UNDERGROUND POWER LINE 1 - 8 | OWNER | DEPTH | | | | | LINE DNU |
| 670 - 673 | ABOVEGROUND POWER LINE 1 - 4 | OWNER | | | | | | LINE DNU |
| 680 - 681 | UNDERGROUND POWER SINGLE SERVICE 1 - 2 | | | | | | | LINE DNU |
| 685 - 686 | ABOVEGROUND POWER SINGLE SERVICE 1 - 2 | | | | | | | LINE DNU |
| 687 | POWER TEST HOLE | OWNER | DEPTH | NO.LINE | INFO1 | INFO2 | | POINT DNU |
| GAS UTILITY AND PIPELINE | | | | | | | | |
| 700 - 707 | UNDERGROUND GAS LINE 1 - 8 | DIA | MATRL | OWNER | DEPTH | | | LINE DNU |
| 710 - 713 | ABOVEGROUND GAS LINE 1 - 4 | DIA | MATRL | OWNER | | | | LINE DNU |
| 715 - 716 | UNDERGROUND GAS SINGLE SERVICE 1 - 2 | | | | | | | LINE DNU |
| 718 - 719 | ABOVEGROUND GAS SINGLE SERVICE 1 - 2 | | | | | | | LINE DNU |
| 720 - 723 | UNDERGROUND GAS LINE CASING 1 - 4 | DIA | MATRL | OWNER | DEPTH | | | LINE DNU |
| 725 - 728 | ABOVEGROUND GAS LINE CASING 1 - 4 | DIA | MATRL | OWNER | | | | LINE DNU |
| 730 | GAS VALVE | | | | | | | POINT DNU |
| 731 | GAS METER | | | | | | | POINT DNU |
| 732 | GAS SERVICE (NO METER) | | | | | | | POINT DNU |
| 733 | GAS REGULATOR | | | | | | | POINT DNU |
| 734 | GAS RISER | | | | | | | POINT DNU |
| 735 | GAS TEST BOX | | | | | | | POINT DNU |
| 736 | GAS VENT | | | | | | | POINT DNU |
| 737 | GAS WELL | OWNER | | | | | | POINT DNU |
| 738 | OIL WELL | OWNER | | | | | | POINT DNU |
| 739 | GAS UTILITY MARKER | OWNER | INFO | | | | | POINT DNU |
| 740 - 745 | UNDERGROUND PIPELINE 1 - 6 | DIA | MATRL | OWNER | PRODUCT | DEPTH | | LINE DNU |
| 750 - 753 | ABOVEGROUND PIPELINE 1 - 4 | DIA | MATRL | OWNER | PRODUCT | | | LINE DNU |
| 760 - 763 | UNDERGROUND PIPELINE CASING 1 - 4 | DIA | MATRL | OWNER | DEPTH | | | LINE DNU |
| 765 - 768 | ABOVEGROUND PIPELINE CASING 1 - 4 | DIA | MATRL | OWNER | | | | LINE DNU |
| 770 | PIPELINE VENT | | | | | | | POINT DNU |
| 771 | PIPELINE REGULATOR | | | | | | | POINT DNU |
| 772 | PIPELINE UTILITY MARKER | OWNER | INFO | | | | | POINT DNU |
| 773 | GAS TEST HOLE | OWNER | DEPTH | DIA | MATRL | INFO | | POINT DNU |
| 774 | PIPELINE TEST HOLE | OWNER | DEPTH | DIA | MATRL | INFO | | POINT DNU |
| RAILROAD | | | | | | | | |
| 780 - 789 | RAILROAD TRACK RAIL TOP 1 - 10 | OWNER | | | | | | LINE DNU |
| 790 | RAILROAD MILEPOST | NUMBER | | | | | | POINT DNU |
| 791 | RAILROAD TRAFFIC SIGNAL | | | | | | | POINT DNU |
| 792 | RAILROAD TRAFFIC SIGNAL CONTROL BOX | SIZE | | | | | | POINT DNU |
| 793 | RAILROAD SWITCH | | | | | | | POINT DNU |
| 795 - 799 | RAILROAD TRACK CENTERLINE 1 - 5 | OWNER | | | | | | LINE BREAK |

| SEWER | | | | | | | | |
|-------------------|--|--------|-------|---------|---------|---------|-------|-----|
| 800 - 807 | SEWER LINE INVERT 1 - 8 | DIA | MATRL | OWNER | | | LINE | DNU |
| 810 - 815 | SEWER FORCE MAIN TOP 1 - 6 | DIA | MATRL | OWNER | DEPTH | | LINE | DNU |
| 820 | SEWER MANHOLE TOP | | | | | | POINT | DNU |
| 821 | SEWER MANHOLE BOTTOM INVERT SHOT | | | | | | POINT | DNU |
| 822 | SEWER CLEANOUT | | | | | | POINT | DNU |
| 823 | SEWER BLOWOUT VALVE | | | | | | POINT | DNU |
| 824 | SEWER SEPTIC TANK | | | | | | POINT | DNU |
| 825 | SEWER PUMP | | | | | | POINT | DNU |
| 826 | SEWER LINE INVERT SHOT | DIA | MATRL | | | | POINT | DNU |
| 827 | SEWER UTILITY MARKER | OWNER | INFO | | | | POINT | DNU |
| 828 | SEWER TEST HOLE | OWNER | DEPTH | DIA | MATRL | INFO | POINT | DNU |
| 830 | SEWER LIFT STATION (POINT) | | | | | | POINT | DNU |
| 831 | SEWER LIFT STATION (CLOSED) | | | | | | LINE | DNU |
| 835 | SEWER TREATMENT PLANT (POINT) | | | | | | POINT | DNU |
| 836 | SEWER TREATMENT PLANT (CLOSED) | | | | | | LINE | DNU |
| TRAFFIC | | | | | | | | |
| 837 - 838 | UNDERGROUND TRAFFIC SIGNAL POWER 1 - 2 | DEPTH | SIZE | OWNER | | | LINE | DNU |
| 839 - 840 | ABOVEGROUND TRAFFIC SIGNAL POWER 1 - 2 | SIZE | OWNER | | | | LINE | DNU |
| 841 | UNDERGROUND TRAFFIC INTERCONNECT LINE | SIZE | OWNER | DEPTH | | | LINE | DNU |
| 842 | UNDERGROUND TRAFFIC LOOP DETECTOR LINE | SIZE | OWNER | DEPTH | | | LINE | DNU |
| 843 - 844 | UNDERGROUND TRAFFIC FIBER OPTIC | SIZE | OWNER | DEPTH | | | LINE | DNU |
| 845 - 846 | ABOVEGROUND TRAFFIC FIBER OPTIC | SIZE | OWNER | | | | LINE | DNU |
| 847 | DYNAMIC MESSAGE SIGN | MATRL | | | | | LINE | DNU |
| 848 | DYNAMIC MESSAGE SIGN SUPPORT | SIZE | MATRL | | | | POINT | DNU |
| 849 | MISCELLANEOUS TRAFFIC POLE | SIZE | MATRL | USE | | | POINT | DNU |
| 850 | TRAFFIC SIGNAL STANDARD | DIA | MATRL | | | | POINT | DNU |
| 851 | CABLE SUSPENDED TRAFFIC SIGNAL POLE | DIA | MATRL | | | | POINT | DNU |
| 852 | CANTILEVERED TRAFFIC SIGNAL POLE | DIA | MATRL | | | | POINT | DNU |
| 853 | TRAFFIC SIGNAL DEADMAN | | | | | | POINT | DNU |
| 854 | TRAFFIC SIGNAL POWER VAULT | SIZE | MATRL | | | | POINT | DNU |
| 855 | TRAFFIC SIGNAL CONTROL BOX | SIZE | | | | | POINT | DNU |
| 856 | TRAFFIC COUNTER | | | | | | POINT | DNU |
| 857 | TRAFFIC SIGN | INFO | | | | | POINT | DNU |
| 858 | FEDERAL AID MARKER | NUMBER | | | | | POINT | DNU |
| 859 | PARKING METER | | | | | | POINT | DNU |
| 860 | LIGHT STANDARD | DIA | MATRL | | | | POINT | DNU |
| 861 | LIGHT STANDARD POWER VAULT | SIZE | MATRL | | | | POINT | DNU |
| 862 | TRAFFIC CAMERA POLE | DIA | MATRL | | | | POINT | DNU |
| 863 | TRAFFIC CAMERA CONTROL BOX | SIZE | | | | | POINT | DNU |
| 864 | TRAFFIC PULL BOX | SIZE | MATRL | | | | POINT | DNU |
| 865 | OVERHEAD SIGN TRUSS | MATRL | | | | | LINE | DNU |
| 866 | OVERHEAD SIGN TRUSS SUPPORT | DIA | MATRL | | | | POINT | DNU |
| 867 - 868 | UNDERGROUND TRAFFIC CAMERA LINE 1 - 2 | OWNER | DEPTH | | | | LINE | DNU |
| 869 | ABOVEGROUND TRAFFIC CAMERA LINE | OWNER | | | | | LINE | DNU |
| TELEPHONE UTILITY | | | | | | | | |
| 870 - 877 | UNDERGROUND TELEPHONE LINE 1 - 8 | OWNER | SIZE | DEPTH | | | LINE | DNU |
| 880 - 883 | ABOVEGROUND TELEPHONE LINE 1 - 4 | OWNER | SIZE | | | | LINE | DNU |
| 885 - 886 | UNDERGROUND TELEPHONE LINE CASING 1 - 2 | DEPTH | DIA | MATRL | OWNER | | LINE | DNU |
| 887 - 888 | ABOVEGROUND TELEPHONE LINE CASING 1 - 2 | DIA | MATRL | OWNER | | | LINE | DNU |
| 890 - 891 | UNDERGROUND TELE SINGLE SERVICE 1 - 2 | | | | | | LINE | DNU |
| 895 - 896 | ABOVEGROUND TELE SINGLE SERVICE 1 - 2 | | | | | | LINE | DNU |
| 900 | TELEPHONE BOOTH | | | | | | POINT | DNU |
| 901 | TELEPHONE CROSS CONNECT BOX | SIZE | | | | | POINT | DNU |
| 902 | TELEPHONE PEDESTAL | | | | | | POINT | DNU |
| 903 | TELEPHONE MANHOLE TOP | SIZE | MATRL | | | | POINT | DNU |
| 904 | TELEPHONE MANHOLE BOTTOM INVERT SHOT | | | | | | POINT | DNU |
| 905 | TELEPHONE POLE | DIA | MATRL | OWNER | LIGHT | | POINT | DNU |
| 906 | TELEPHONE POLE DEADMAN | | | | | | POINT | DNU |
| 907 | TELEPHONE PRESSURE BOX | | | | | | POINT | DNU |
| 908 | TELEPHONE UTILITY MARKER | OWNER | INFO | | | | POINT | DNU |
| 909 | TELEPHONE TEST HOLE | OWNER | DEPTH | SIZE | NO.LINE | INFO | POINT | DNU |
| 910 - 917 | MULTIPLE UNDERGROUND TELEPHONE LINES 1 - 8 | OWNER | SIZE | DEPTH | NO.LINE | CONDUIT | LINE | DNU |
| 920 - 923 | MULTIPLE ABOVEGROUND TELEPHONE LINES 1 - 4 | OWNER | SIZE | NO.LINE | | | LINE | DNU |
| 930 - 937 | UNDERGROUND TELEPHONE FIBER OPTIC LINE 1 - 8 | OWNER | SIZE | DEPTH | | | LINE | DNU |
| 938 - 939 | MULTIPLE UNDERGROUND TELE FIBER OPTIC 1 - 2 | OWNER | SIZE | DEPTH | NO.LINE | | LINE | DNU |
| 940 - 943 | ABOVEGROUND TELEPHONE FIBER OPTIC LINE 1 - 4 | OWNER | SIZE | | | | LINE | DNU |
| 944 - 945 | MULTIPLE ABOVEGROUND TELE FIBER OPTIC 1 - 2 | OWNER | SIZE | NO.LINE | | | LINE | DNU |

| WATER UTILITY | | | | | | | | |
|----------------|--|---------|----------|----------|----------|----------|-------|-----|
| 950 - 957 | UNDERGROUND WATER LINE 1 - 8 | DIA | MATRL | OWNER | DEPTH | | LINE | DNU |
| 960 - 963 | ABOVEGROUND WATER LINE 1 - 4 | DIA | MATRL | OWNER | | | LINE | DNU |
| 965 - 966 | UNDERGROUND WATER SINGLE SERVICE 1 - 2 | | | | | | LINE | DNU |
| 970 - 971 | ABOVEGROUND WATER SINGLE SERVICE 1 - 2 | | | | | | LINE | DNU |
| 975 | WATER VALVE | | | | | | POINT | DNU |
| 976 | WATER METER | | | | | | POINT | DNU |
| 977 | FIRE HYDRANT | | | | | | POINT | DNU |
| 978 | WATER VALVE VAULT | SIZE | MATRL | | | | POINT | DNU |
| 979 | WATER TOWER (CLOSED) | MATRL | NO.LEGS | OWNER | | | LINE | DNU |
| 980 | WATER CLEANOUT | | | | | | POINT | DNU |
| 981 | WATER WELL | OWNER | DIA | DEPTH | | | POINT | DNU |
| 982 | WATER UTILITY MARKER | OWNER | INFO | | | | POINT | DNU |
| 983 | WATER TEST HOLE | OWNER | DEPTH | DIA | MATRL | INFO | POINT | DNU |
| 990 - 993 | UNDERGROUND WATER LINE CASING 1 - 4 | DIA | MATRL | OWNER | DEPTH | | LINE | DNU |
| 995 - 998 | ABOVEGROUND WATER LINE CASING 1 - 4 | DIA | MATRL | OWNER | | | LINE | DNU |
| MISCELLANEOUS | | | | | | | | |
| 1000 | MULTIPOLE BILLBOARD CENTERLINE | NO.LEGS | SIZE | MATRL | | | LINE | DNU |
| 1001 | MONOPOLE BILLBOARD CENTERLINE | MATRL | | | | | LINE | DNU |
| 1002 | MONOPOLE BILLBOARD SUPPORT POLE | DIA | MATRL | | | | POINT | DNU |
| 1005 | SIGN | MATRL | ELEC | | | | LINE | DNU |
| 1006 | SIGN POLE | SIZE | MATRL | | | | POINT | DNU |
| 1007 | MISC. POLE | SIZE | MATRL | | | | POINT | DNU |
| 1010 | MAILBOX BANK | NO.BOX | MATRL | | | | LINE | DNU |
| 1011 | MAILBOX | | | | | | POINT | DNU |
| 1015 | GRAVE | | | | | | POINT | DNU |
| 1016 | CEMETERY | | | | | | LINE | DNU |
| 1020 | PLACE TEXT | TEXT | | | | | POINT | DNU |
| 1025 | ABOVEGROUND STORAGE TANK (POINT) | PRODUCT | DIA | MATRL | CAPACITY | | POINT | DNU |
| 1026 | ABOVEGROUND STORAGE TANK (CLOSED) | PRODUCT | MATRL | CAPACITY | | | LINE | DNU |
| 1030 | STORAGE TANK VENT | | | | | | POINT | DNU |
| 1035 | UNDERGROUND STORAGE TANK (POINT) | PRODUCT | DIA | MATRL | DEPTH | CAPACITY | POINT | DNU |
| 1036 | UNDERGROUND STORAGE TANK (CLOSED) | PRODUCT | MATRL | DEPTH | CAPACITY | | LINE | DNU |
| 1040 | FUEL PUMP | | | | | | POINT | DNU |
| 1041 | MONITORING WELL | OWNER | DIA | DEPTH | | | POINT | DNU |
| 1042 | SILO | DIA | MATRL | | | | POINT | DNU |
| 1043 | MISCELLANEOUS TOWER (CLOSED) | TYPE | MATRL | NO.LEGS | OWNER | | LINE | DNU |
| 1044 | FLAG POLE | DIA | MATRL | | | | POINT | DNU |
| 1045 | GENERAL / PRIVATE LIGHT | TYPE | SIZE | MATRL | | | POINT | DNU |
| 1046 | MISCELLANEOUS TOWER (POINT) | MATRL | OWNER | TYPE | | | POINT | DNU |
| 1047 | MISCELLANEOUS TOWER GUY ANCHOR | MATRL | NO.CABLE | | | | POINT | DNU |
| 1050 | MECHANICAL (POINT) | INFO | | | | | POINT | DNU |
| 1051 | MECHANICAL (CLOSED) | INFO | | | | | LINE | DNU |
| 1055 | OVERHEAD STRUCTURE (POINT) | INFO 1 | INFO 2 | | | | POINT | DNU |
| 1056 | OVERHEAD STRUCTURE (LINE) | INFO 1 | INFO 2 | | | | LINE | DNU |
| 1057 | OVERHEAD STRUCTURE SUPPORT (POINT) | INFO 1 | INFO 2 | | | | POINT | DNU |
| 1058 | OVERHEAD STRUCTURE SUPPORT (LINE) | INFO 1 | INFO 2 | | | | LINE | DNU |
| UNLISTED POINT | | | | | | | | |
| 1100 | POINT 0 | INFO | | | | | POINT | DNU |
| 1101 | POINT 1 | INFO | | | | | POINT | DNU |
| 1102 | POINT 2 THE FIELD SURVEYOR MUST | INFO | | | | | POINT | DNU |
| 1103 | POINT 3 DEFINE EACH NEW FEATURE | INFO | | | | | POINT | DNU |
| 1104 | POINT 4 WHEN PROMPTED FOR INFO | INFO | | | | | POINT | DNU |
| 1105 | POINT 5 FOLLOWING THE OBSERVATION | INFO | | | | | POINT | DNU |
| 1106 | POINT 6 TO THE NEW FEATURE | INFO | | | | | POINT | DNU |
| 1107 | POINT 7 | INFO | | | | | POINT | DNU |
| 1108 | POINT 8 | INFO | | | | | POINT | DNU |
| 1109 | POINT 9 | INFO | | | | | POINT | DNU |
| 1110 | POINT 10 | INFO | | | | | POINT | DNU |
| UNLISTED LINE | | | | | | | | |
| 1150 | LINE 0 | INFO | | | | | LINE | DNU |
| 1151 | LINE 1 | INFO | | | | | LINE | DNU |
| 1152 | LINE 2 THE FIELD SURVEYOR MUST | INFO | | | | | LINE | DNU |
| 1153 | LINE 3 DEFINE EACH NEW FEATURE | INFO | | | | | LINE | DNU |
| 1154 | LINE 4 WHEN PROMPTED FOR INFO | INFO | | | | | LINE | DNU |
| 1155 | LINE 5 FOLLOWING THE OBSERVATION | INFO | | | | | LINE | DNU |
| 1156 | LINE 6 TO THE NEW FEATURE | INFO | | | | | LINE | DNU |
| 1157 | LINE 7 | INFO | | | | | LINE | DNU |
| 1158 | LINE 8 | INFO | | | | | LINE | DNU |
| 1159 | LINE 9 | INFO | | | | | LINE | DNU |
| 1160 | LINE 10 | INFO | | | | | LINE | DNU |

| ROUND PIPE CULVERT INVERT 1 - 6 (SIZED) | | | | | | | | |
|--|---|-------|--|--|--|--|------|-----|
| 2000 - 2005 | 8" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2010 - 2015 | 10" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2020 - 2025 | 12" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2030 - 2035 | 15" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2040 - 2045 | 18" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2050 - 2055 | 21" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2060 - 2065 | 24" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2070 - 2075 | 27" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2080 - 2085 | 30" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2090 - 2095 | 33" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2100 - 2105 | 36" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2110 - 2115 | 42" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2120 - 2125 | 48" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2130 - 2135 | 54" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2140 - 2145 | 60" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2150 - 2155 | 66" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2160 - 2165 | 72" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2170 - 2175 | 78" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2180 - 2185 | 84" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2190 - 2195 | 90" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2200 - 2205 | 96" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2210 - 2215 | 102" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2220 - 2225 | 108" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2230 - 2235 | 114" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2240 - 2245 | 120" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2250 - 2255 | 126" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2260 - 2265 | 132" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2270 - 2275 | 138" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2280 - 2285 | 144" ROUND PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| ROUND PIPE CROSSDRAIN INVERT 1 - 4 (SIZED) | | | | | | | | |
| 2300 - 2303 | 8" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2310 - 2313 | 10" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2320 - 2323 | 12" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2330 - 2333 | 15" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2340 - 2343 | 18" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2350 - 2353 | 21" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2360 - 2363 | 24" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2370 - 2373 | 27" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2380 - 2383 | 30" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2390 - 2393 | 33" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2400 - 2403 | 36" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2410 - 2413 | 42" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2420 - 2423 | 48" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2430 - 2433 | 54" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2440 - 2443 | 60" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2450 - 2453 | 66" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2460 - 2463 | 72" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2470 - 2473 | 78" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2480 - 2483 | 84" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2490 - 2493 | 90" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2500 - 2503 | 96" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2510 - 2513 | 102" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2520 - 2523 | 108" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2530 - 2533 | 114" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2540 - 2543 | 120" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2550 - 2553 | 126" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2560 - 2563 | 132" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2570 - 2573 | 138" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 2580 - 2583 | 144" ROUND PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |

| ARCH PIPE CULVERT INVERT 1 - 6 (SIZED HEIGHT X WIDTH) | | | | | | | | | |
|---|-------------|--------------------------------|-------|--|--|--|--|------|-----|
| 2600 - 2605 | 11" X 18" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2610 - 2615 | 13" X 17" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2620 - 2625 | 14" X 22" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2630 - 2635 | 15" X 21" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2640 - 2645 | 16" X 26" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2650 - 2655 | 18" X 24" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2660 - 2665 | 18" X 29" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2670 - 2675 | 20" X 28" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2680 - 2685 | 23" X 36" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2690 - 2695 | 24" X 35" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2700 - 2705 | 27" X 44" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2710 - 2715 | 29" X 42" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2720 - 2725 | 31" X 40" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2730 - 2735 | 31" X 51" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2740 - 2745 | 33" X 49" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2750 - 2755 | 36" X 46" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2760 - 2765 | 36" X 59" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2770 - 2775 | 38" X 57" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2780 - 2785 | 40" X 65" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2790 - 2795 | 41" X 53" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2800 - 2805 | 43" X 64" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2810 - 2815 | 45" X 73" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2820 - 2825 | 46" X 60" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2830 - 2835 | 47" X 71" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2840 - 2845 | 51" X 66" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2850 - 2855 | 52" X 77" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2860 - 2865 | 54" X 88" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2870 - 2875 | 55" X 73" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2880 - 2885 | 57" X 83" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2890 - 2895 | 59" X 81" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2900 - 2905 | 62" X 102" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2910 - 2915 | 63" X 87" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2920 - 2925 | 67" X 95" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2930 - 2935 | 71" X 103" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2940 - 2945 | 72" X 115" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2950 - 2955 | 75" X 112" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2960 - 2965 | 77" X 122" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2970 - 2975 | 79" X 117" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2980 - 2985 | 83" X 128" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 2990 - 2995 | 87" X 137" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 3000 - 3005 | 87" X 138" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 3010 - 3015 | 91" X 142" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 3020 - 3025 | 97" X 154" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |
| 3030 - 3035 | 107" X 169" | ARCH PIPE CULVERT INVERT 1 - 6 | MATRL | | | | | LINE | SUB |

| ARCH PIPE CROSSDRAIN INVERT 1 - 4 (SIZED HEIGHT X WIDTH) | | | | | | | | | |
|--|-------------|-----------------------------------|-------|--|--|--|--|------|-----|
| 3040 - 3043 | 11" X 18" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3045 - 3048 | 13" X 17" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3050 - 3053 | 14" X 22" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3055 - 3058 | 15" X 21" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3060 - 3063 | 16" X 26" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3065 - 3068 | 18" X 24" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3070 - 3073 | 18" X 29" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3075 - 3078 | 20" X 28" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3080 - 3083 | 23" X 36" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3085 - 3088 | 24" X 35" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3090 - 3093 | 27" X 44" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3095 - 3098 | 29" X 42" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3100 - 3103 | 31" X 40" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3105 - 3108 | 31" X 51" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3110 - 3113 | 33" X 49" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3115 - 3118 | 36" X 46" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3120 - 3123 | 36" X 59" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3125 - 3128 | 38" X 57" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3130 - 3133 | 40" X 65" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3135 - 3138 | 41" X 53" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3140 - 3143 | 43" X 64" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3145 - 3148 | 45" X 73" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3150 - 3153 | 46" X 60" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3155 - 3158 | 47" X 71" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3160 - 3163 | 51" X 66" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3165 - 3168 | 52" X 77" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3170 - 3173 | 54" X 88" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3175 - 3178 | 55" X 73" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3180 - 3183 | 57" X 83" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3185 - 3188 | 59" X 81" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3190 - 3193 | 62" X 102" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3195 - 3198 | 63" X 87" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3200 - 3203 | 67" X 95" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3205 - 3208 | 71" X 103" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3210 - 3213 | 72" X 115" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3215 - 3218 | 75" X 112" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3220 - 3223 | 77" X 122" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3225 - 3228 | 79" X 117" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3230 - 3233 | 83" X 128" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3235 - 3238 | 87" X 137" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3240 - 3243 | 87" X 138" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3245 - 3248 | 91" X 142" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3250 - 3253 | 97" X 154" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |
| 3255 - 3258 | 107" X 169" | ARCH PIPE CROSSDRAIN INVERT 1 - 4 | MATRL | | | | | LINE | SUB |

| BOX CULVERT INVERT CENTERLINE (SIZED HEIGHT X WIDTH) | | | | | | | | |
|---|---------|-----------------------------|-------|--|--|--|------|-----|
| 5000 - 5003 | 2' X 3' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5010 - 5013 | 3' X 3' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5020 - 5023 | 2' X 4' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5030 - 5033 | 3' X 4' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5040 - 5043 | 4' X 4' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5050 - 5053 | 3' X 5' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5060 - 5063 | 4' X 5' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5070 - 5073 | 5' X 5' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5080 - 5083 | 3' X 6' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5090 - 5093 | 4' X 6' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5100 - 5103 | 5' X 6' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5110 - 5113 | 6' X 6' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5120 - 5123 | 4' X 7' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5130 - 5133 | 5' X 7' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5140 - 5143 | 6' X 7' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5150 - 5153 | 7' X 7' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5160 - 5163 | 4' X 8' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5170 - 5173 | 5' X 8' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5180 - 5183 | 6' X 8' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5190 - 5193 | 7' X 8' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5200 - 5203 | 8' X 8' | BOX CULVERT INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| BOX CROSSDRAIN INVERT CENTERLINE (SIZED HEIGHT X WIDTH) | | | | | | | | |
| 5300 - 5303 | 2' X 3' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5310 - 5313 | 3' X 3' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5320 - 5323 | 2' X 4' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5330 - 5333 | 3' X 4' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5340 - 5343 | 4' X 4' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5350 - 5353 | 3' X 5' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5360 - 5363 | 4' X 5' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5370 - 5373 | 5' X 5' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5380 - 5383 | 3' X 6' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5390 - 5393 | 4' X 6' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5400 - 5403 | 5' X 6' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5410 - 5413 | 6' X 6' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5420 - 5423 | 4' X 7' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5430 - 5433 | 5' X 7' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5440 - 5443 | 6' X 7' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5450 - 5453 | 7' X 7' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5460 - 5463 | 4' X 8' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5470 - 5473 | 5' X 8' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5480 - 5483 | 6' X 8' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5490 - 5493 | 7' X 8' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |
| 5500 - 5503 | 8' X 8' | BOX CROSSDRAIN INVERT 1 - 4 | MATRL | | | | LINE | SUB |

| ROUND SEWER LINE INVERT (SIZED) | | | | | | | | |
|---------------------------------|------------------------------------|-------|-------|--|--|--|------|-----|
| 8000 - 8003 | 4" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8010 - 8013 | 6" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8020 - 8023 | 8" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8030 - 8033 | 10" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8040 - 8043 | 12" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8050 - 8053 | 15" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8060 - 8063 | 18" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8070 - 8073 | 21" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8080 - 8083 | 24" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8090 - 8093 | 30" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8100 - 8103 | 36" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8110 - 8113 | 42" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8120 - 8123 | 48" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8130 - 8133 | 54" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8140 - 8143 | 60" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8150 - 8153 | 66" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8160 - 8163 | 72" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8170 - 8173 | 78" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8180 - 8183 | 84" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8190 - 8193 | 90" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8200 - 8203 | 96" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8210 - 8213 | 108" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8220 - 8223 | 114" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |
| 8230 - 8233 | 120" ROUND SEWER LINE INVERT 1 - 4 | MATRL | OWNER | | | | LINE | SUB |

PART 2

FIELD GUIDE

| | |
|---|---|
| STATE OF LOUISIANA | STATE OF LOUISIANA |
| DEPT. OF TRANSPORTATION AND DEVELOPMENT | DEPT. OF TRANSPORTATION AND DEVELOPMENT |
| P. O. BOX 94245 | P. O. BOX 94245 |
| BATON ROUGE, LOUISIANA 70804-9245 | BATON ROUGE, LOUISIANA 70804-9245 |
| LOCATION AND SURVEY SECTION | LOCATION AND SURVEY SECTION |
| SURVEY AUTOMATION | SURVEY AUTOMATION |
| SURVEY FEATURE CODE | SURVEY FEATURE CODE |
| FIELD GUIDE | FIELD GUIDE |
| REVISED FEBRUARY 1, 2002 | REVISED FEBRUARY 1, 2002 |
| REVISED OCTOBER 1, 2005 | REVISED OCTOBER 1, 2005 |
| REVISED JANUARY 3, 2006 | REVISED JANUARY 3, 2006 |
| REVISED DECEMBER 1, 2008 | REVISED DECEMBER 1, 2008 |
| REVISED JANUARY 30, 2009 | REVISED JANUARY 30, 2009 |
| REVISED DECEMBER 1, 2010 | REVISED DECEMBER 1, 2010 |
| REVISED DECEMBER 01, 2011 | REVISED DECEMBER 01, 2011 |

| FEA. NO. | FEATURE DESCRIPTION | ATT | OBJECT TYPE | DTM | FEA. NO. | FEATURE DESCRIPTION | ATT | OBJECT TYPE | DTM |
|--|---|-----|-------------|-------|--|---|-----|-------------|-------|
| SURVEY CONTROL | | | | | SURVEY CONTROL | | | | |
| * No attribute prompting by data collector | | | | | * No attribute prompting by data collector | | | | |
| 1 * | PRIMARY CONTROL POINT (KNOWN X,Y,Z) | YES | POINT | DNU | 1 * | PRIMARY CONTROL POINT (KNOWN X,Y,Z) | YES | POINT | DNU |
| 2 * | HORIZONTAL CONTROL POINT (KNOWN X,Y) | YES | POINT | DNU | 2 * | HORIZONTAL CONTROL POINT (KNOWN X,Y) | YES | POINT | DNU |
| 3 | CONTROL BENCHMARK | YES | POINT | DNU | 3 | CONTROL BENCHMARK | YES | POINT | DNU |
| 4 | TEMPORARY BENCHMARK | YES | POINT | DNU | 4 | TEMPORARY BENCHMARK | YES | POINT | DNU |
| 5 * | TRAVERSE POINT | YES | POINT | DNU | 5 * | TRAVERSE POINT | YES | POINT | DNU |
| 6 * | TOPO POINT | YES | POINT | DNU | 6 * | TOPO POINT | YES | POINT | DNU |
| 7 | CONTROL POINT REFERENCE MARK | YES | POINT | DNU | 7 | CONTROL POINT REFERENCE MARK | YES | POINT | DNU |
| 8 | PHOTO TARGET | YES | POINT | DNU | 8 | PHOTO TARGET | YES | POINT | DNU |
| 9 | TRAVERSE CLOSING POINT | YES | POINT | DNU | 9 | TRAVERSE CLOSING POINT | YES | POINT | DNU |
| 20 | FIELD SURVEY POINT OF CURVATURE (PC) | YES | POINT | DNU | 20 | FIELD SURVEY POINT OF CURVATURE (PC) | YES | POINT | DNU |
| 21 | FIELD SURVEY POINT OF INTERSECTION (PI) | YES | POINT | DNU | 21 | FIELD SURVEY POINT OF INTERSECTION (PI) | YES | POINT | DNU |
| 22 | FIELD SURVEY POINT OF TANGENCY (PT) | YES | POINT | DNU | 22 | FIELD SURVEY POINT OF TANGENCY (PT) | YES | POINT | DNU |
| 23 | FIELD SURVEY POINT ON TANGENT (POT) | YES | POINT | DNU | 23 | FIELD SURVEY POINT ON TANGENT (POT) | YES | POINT | DNU |
| 24 | VERIFICATION OBSERVATION POINT | YES | POINT | DNU | 24 | VERIFICATION OBSERVATION POINT | YES | POINT | DNU |
| 25-30 | FIELD SURVEY ALIGNMENT 1 - 6 | NO | LINE | DNU | 25-30 | FIELD SURVEY ALIGNMENT 1 - 6 | NO | LINE | DNU |
| ROADWAY | | | | | ROADWAY | | | | |
| 47-54 | CROWN OF ROAD 1 - 8 | YES | LINE | BREAK | 47-54 | CROWN OF ROAD 1 - 8 | YES | LINE | BREAK |
| 55-69 | PAVEMENT EDGE 1 - 15 | YES | LINE | BREAK | 55-69 | PAVEMENT EDGE 1 - 15 | YES | LINE | BREAK |
| 70-79 | SHOULDER EDGE 1 - 10 | YES | LINE | BREAK | 70-79 | SHOULDER EDGE 1 - 10 | YES | LINE | BREAK |
| 80-89 | SLOPE TOE 1 - 10 | NO | LINE | BREAK | 80-89 | SLOPE TOE 1 - 10 | NO | LINE | BREAK |
| 90-92 | CRASH WALL BASE 1-3 | YES | LINE | BREAK | 90-92 | CRASH WALL BASE 1-3 | YES | LINE | BREAK |
| 93-95 | CRASH WALL TOP 1-3 | YES | LINE | BREAK | 93-95 | CRASH WALL TOP 1-3 | YES | LINE | BREAK |
| CURB AND GUTTER | | | | | CURB AND GUTTER | | | | |
| 100-119 | CURB 1 - 20 | YES | LINE | BREAK | 100-119 | CURB 1 - 20 | YES | LINE | BREAK |
| 120-127 | GUTTER 1 - 8 | YES | LINE | BREAK | 120-127 | GUTTER 1 - 8 | YES | LINE | BREAK |
| BRIDGE | | | | | BRIDGE | | | | |
| 130-133 | CROWN OF BRIDGE DECK 1 - 4 | YES | LINE | DNU | 130-133 | CROWN OF BRIDGE DECK 1 - 4 | YES | LINE | DNU |
| 134-139 | BRIDGE DECK GUTTER LINE 1-6 | YES | LINE | DNU | 134-139 | BRIDGE DECK GUTTER LINE 1-6 | YES | LINE | DNU |
| 140-147 | BRIDGE DECK EDGE 1 - 8 | YES | LINE | DNU | 140-147 | BRIDGE DECK EDGE 1 - 8 | YES | LINE | DNU |
| 148-149 | BRIDGE DECK JOINT 1 - 2 | YES | LINE | DNU | 148-149 | BRIDGE DECK JOINT 1 - 2 | YES | LINE | DNU |
| 150-159 | BRIDGE CURB 1 - 10 | YES | LINE | DNU | 150-159 | BRIDGE CURB 1 - 10 | YES | LINE | DNU |
| 160-167 | BRIDGE RAIL 1 - 8 | YES | LINE | DNU | 160-167 | BRIDGE RAIL 1 - 8 | YES | LINE | DNU |
| 168-169 | TOP OF BRIDGE BENT CAP 1 - 2 | YES | LINE | DNU | 168-169 | TOP OF BRIDGE BENT CAP 1 - 2 | YES | LINE | DNU |
| 170-173 | BRIDGE HEADWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK | 170-173 | BRIDGE HEADWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK |
| 175-178 | BRIDGE WINGWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK | 175-178 | BRIDGE WINGWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK |
| 180-183 | GUARDRAIL CENTERLINE 1 - 4 | YES | LINE | DNU | 180-183 | GUARDRAIL CENTERLINE 1 - 4 | YES | LINE | DNU |
| 184 | BRIDGE PILE POINT SQUARE | YES | POINT | DNU | 184 | BRIDGE PILE POINT SQUARE | YES | POINT | DNU |
| 185 | BRIDGE PILE POINT ROUND | YES | POINT | DNU | 185 | BRIDGE PILE POINT ROUND | YES | POINT | DNU |
| 186 | BRIDGE PILE C (CLOSED) | YES | LINE | DNU | 186 | BRIDGE PILE C (CLOSED) | YES | LINE | DNU |
| 187 | BRIDGE PILE 1 (LINE) | YES | LINE | DNU | 187 | BRIDGE PILE 1 (LINE) | YES | LINE | DNU |
| 189-194 | BRIDGE PILE 2 - 7 (LINE) | YES | LINE | DNU | 189-194 | BRIDGE PILE 2 - 7 (LINE) | YES | LINE | DNU |
| 188 | BOTTOM OF STRINGER | NO | POINT | DNU | 188 | BOTTOM OF STRINGER | NO | POINT | DNU |
| 195-199 | BRIDGE FOOTING 1 - 5 | YES | LINE | BREAK | 195-199 | BRIDGE FOOTING 1 - 5 | YES | LINE | BREAK |
| WATER BODY | | | | | WATER BODY | | | | |
| 200-203 | WATER BODY CENTERLINE 1 - 4 | YES | LINE | BREAK | 200-203 | WATER BODY CENTERLINE 1 - 4 | YES | LINE | BREAK |
| 210-217 | WATER BODY BANK 1 - 8 | NO | LINE | BREAK | 210-217 | WATER BODY BANK 1 - 8 | NO | LINE | BREAK |
| 220-227 | WATER'S EDGE 1 - 8 | YES | LINE | BREAK | 220-227 | WATER'S EDGE 1 - 8 | YES | LINE | BREAK |
| 230-233 | SWAMP LINE 1 - 4 | NO | LINE | BREAK | 230-233 | SWAMP LINE 1 - 4 | NO | LINE | BREAK |
| 240-243 | MARSH LINE 1 - 4 | NO | LINE | BREAK | 240-243 | MARSH LINE 1 - 4 | NO | LINE | BREAK |
| 245 | HIGH WATER MARK | YES | POINT | DNU | 245 | HIGH WATER MARK | YES | POINT | DNU |
| 246 | TOP OF WATER ELEVATION | YES | POINT | DNU | 246 | TOP OF WATER ELEVATION | YES | POINT | DNU |
| DRAINAGE STRUCTURE | | | | | DRAINAGE STRUCTURE | | | | |
| 250-255 | PIPE CULVERT INVERT 1 - 6 | YES | LINE | DNU | 250-255 | PIPE CULVERT INVERT 1 - 6 | YES | LINE | DNU |
| 260-263 | PIPE CROSSDRAIN INVERT 1 - 4 | YES | LINE | DNU | 260-263 | PIPE CROSSDRAIN INVERT 1 - 4 | YES | LINE | DNU |
| 265-268 | BOX CULVERT INVERT (CLOSED) 1 - 4 | YES | LINE | DNU | 265-268 | BOX CULVERT INVERT (CLOSED) 1 - 4 | YES | LINE | DNU |
| 270-273 | BOX CROSSDRAIN INVERT (CLOSED) 1 - 4 | YES | LINE | DNU | 270-273 | BOX CROSSDRAIN INVERT (CLOSED) 1 - 4 | YES | LINE | DNU |
| 275-278 | DRAINAGE HEADWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK | 275-278 | DRAINAGE HEADWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK |
| 280-283 | DRAINAGE WINGWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK | 280-283 | DRAINAGE WINGWALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK |
| 285 | CATCH BASIN TOP 1 (POINT) | YES | POINT | REG | 285 | CATCH BASIN TOP 1 (POINT) | YES | POINT | REG |
| 286 | CATCH BASIN TOP 2 (CLOSED) | YES | LINE | BREAK | 286 | CATCH BASIN TOP 2 (CLOSED) | YES | LINE | BREAK |
| 290 | DROP INLET TOP 1 (POINT) | YES | POINT | REG | 290 | DROP INLET TOP 1 (POINT) | YES | POINT | REG |
| 291 | DROP INLET TOP 2 (CLOSED) | YES | LINE | BREAK | 291 | DROP INLET TOP 2 (CLOSED) | YES | LINE | BREAK |
| 295 | DRAINAGE MANHOLE TOP | YES | POINT | DNU | 295 | DRAINAGE MANHOLE TOP | YES | POINT | DNU |
| 296 | DRAINAGE BOTTOM INVERT SHOT | NO | POINT | DNU | 296 | DRAINAGE BOTTOM INVERT SHOT | NO | POINT | DNU |
| 297 | DRAINAGE PIPE INVERT SHOT | YES | POINT | DNU | 297 | DRAINAGE PIPE INVERT SHOT | YES | POINT | DNU |

| DTM | | | | | DTM | | | | |
|-----------------------|-------------------------------------|-----|-------|-------|-----------------------|-------------------------------------|-----|-------|-------|
| 300-324 | DTM BREAKLINE 1 - 25 | NO | LINE | BREAK | 300-324 | DTM BREAKLINE 1 - 25 | NO | LINE | BREAK |
| 325 | ELEVATION SHOT | NO | POINT | REG | 325 | ELEVATION SHOT | NO | POINT | REG |
| 326 | SCANNED ELEVATION SHOT | NO | POINT | REG | 326 | SCANNED ELEVATION SHOT | NO | POINT | REG |
| 330 | WATER BOTTOM SHOT | NO | POINT | REG | 330 | WATER BOTTOM SHOT | NO | POINT | REG |
| 331 -334 | WATER BOTTOM BREAKLINE 1 -4 | NO | LINE | BREAK | 331 -334 | WATER BOTTOM BREAKLINE 1 -4 | NO | LINE | BREAK |
| DITCH AND LEVEE | | | | | DITCH AND LEVEE | | | | |
| 335-339 | FLOOD PROTECTION STRUCTURE | YES | LINE | BREAK | 335-339 | FLOOD PROTECTION STRUCTURE | YES | LINE | BREAK |
| 340-347 | DITCH TOP 1 - 8 | NO | LINE | BREAK | 340-347 | DITCH TOP 1 - 8 | NO | LINE | BREAK |
| 350-357 | DITCH TOE 1 - 8 | YES | LINE | BREAK | 350-357 | DITCH TOE 1 - 8 | YES | LINE | BREAK |
| 360-367 | DITCH CENTERLINE 1 - 8 | YES | LINE | BREAK | 360-367 | DITCH CENTERLINE 1 - 8 | YES | LINE | BREAK |
| 370-377 | DITCH BACKSLOPE 1 - 8 | NO | LINE | BREAK | 370-377 | DITCH BACKSLOPE 1 - 8 | NO | LINE | BREAK |
| 380-387 | LEVEE TOP 1 - 8 | YES | LINE | BREAK | 380-387 | LEVEE TOP 1 - 8 | YES | LINE | BREAK |
| 390-397 | LEVEE TOE 1 - 8 | NO | LINE | BREAK | 390-397 | LEVEE TOE 1 - 8 | NO | LINE | BREAK |
| 398 -399 | RIP RAP 1 - 2 | YES | LINE | BREAK | 398 -399 | RIP RAP 1 - 2 | YES | LINE | BREAK |
| TREES | | | | | TREES | | | | |
| 400-405 | WOODS EDGE 1 - 6 | YES | LINE | DNV | 400-405 | WOODS EDGE 1 - 6 | YES | LINE | DNV |
| 410-415 | TREE LINE 1 - 6 | YES | LINE | DNV | 410-415 | TREE LINE 1 - 6 | YES | LINE | DNV |
| 420-425 | HEDGE 1 - 6 | YES | LINE | DNV | 420-425 | HEDGE 1 - 6 | YES | LINE | DNV |
| 430-433 | SHRUBBERY BED 1 - 4 | YES | LINE | DNV | 430-433 | SHRUBBERY BED 1 - 4 | YES | LINE | DNV |
| 434 | SHRUBBERY BOX (CLOSED) | YES | LINE | DNV | 434 | SHRUBBERY BOX (CLOSED) | YES | LINE | DNV |
| 435 | SHRUBBERY BOX (POINT) | YES | POINT | DNV | 435 | SHRUBBERY BOX (POINT) | YES | POINT | DNV |
| 436 | TREE | YES | POINT | DNV | 436 | TREE | YES | POINT | DNV |
| 437 | BUSH | YES | POINT | DNV | 437 | BUSH | YES | POINT | DNV |
| 438 | TREE CLUSTER | YES | POINT | DNV | 438 | TREE CLUSTER | YES | POINT | DNV |
| BUILDING IMPROVEMENTS | | | | | BUILDING IMPROVEMENTS | | | | |
| 440-449 | BUILDING ON SLAB 1 - 10 | YES | LINE | BREAK | 440-449 | BUILDING ON SLAB 1 - 10 | YES | LINE | BREAK |
| 450-459 | BUILDING ON PIERS 1 - 10 | YES | LINE | DNV | 450-459 | BUILDING ON PIERS 1 - 10 | YES | LINE | DNV |
| 460-465 | DRIVEWAY 1 - 6 | YES | LINE | BREAK | 460-465 | DRIVEWAY 1 - 6 | YES | LINE | BREAK |
| 469 | FINISHED FLOOR ELEVATION | YES | POINT | DNV | 469 | FINISHED FLOOR ELEVATION | YES | POINT | DNV |
| 470-475 | SIDEWALK 1 - 6 | YES | LINE | BREAK | 470-475 | SIDEWALK 1 - 6 | YES | LINE | BREAK |
| 480-485 | PARKING LOT 1 - 6 | YES | LINE | BREAK | 480-485 | PARKING LOT 1 - 6 | YES | LINE | BREAK |
| 490-495 | SLAB 1 - 6 | YES | LINE | BREAK | 490-495 | SLAB 1 - 6 | YES | LINE | BREAK |
| 500-503 | STAIRS 1 - 4 | YES | LINE | DNV | 500-503 | STAIRS 1 - 4 | YES | LINE | DNV |
| 505-508 | STEPS 1 - 4 | YES | LINE | BREAK | 505-508 | STEPS 1 - 4 | YES | LINE | BREAK |
| 510-513 | PIER 1 - 4 | YES | LINE | DNV | 510-513 | PIER 1 - 4 | YES | LINE | DNV |
| 515-518 | RETAINING WALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK | 515-518 | RETAINING WALL TOP CENTERLINE 1 - 4 | YES | LINE | BREAK |
| 520-521 | PORCH ON SLAB 1 - 2 | YES | LINE | BREAK | 520-521 | PORCH ON SLAB 1 - 2 | YES | LINE | BREAK |
| 522-523 | PORCH ON PIERS 1 - 2 | YES | LINE | DNV | 522-523 | PORCH ON PIERS 1 - 2 | YES | LINE | DNV |
| 525-526 | ROOF OVERHANG 1 - 2 | | LINE | DNV | 525-526 | ROOF OVERHANG 1 - 2 | | LINE | DNV |
| 530-531 | BASE OF WALL 1 - 2 | YES | LINE | BREAK | 530-531 | BASE OF WALL 1 - 2 | YES | LINE | BREAK |
| 535-536 | CANOPY 1 - 2 | YES | LINE | DNV | 535-536 | CANOPY 1 - 2 | YES | LINE | DNV |
| 537 | CANOPY SUPPORT | YES | POINT | DNV | 537 | CANOPY SUPPORT | YES | POINT | DNV |
| 540-541 | BARRICADE 1 - 2 | YES | LINE | DNV | 540-541 | BARRICADE 1 - 2 | YES | LINE | DNV |
| 544 | BARRICADE POST | YES | POINT | DNV | 544 | BARRICADE POST | YES | POINT | DNV |
| 545-549 | FOOTING 1-5 | YES | LINE | BREAK | 545-549 | FOOTING 1-5 | YES | LINE | BREAK |
| FENCES | | | | | FENCES | | | | |
| 550-557 | FENCE LINE 1 - 8 | YES | LINE | DNV | 550-557 | FENCE LINE 1 - 8 | YES | LINE | DNV |
| 560-563 | GATE 1 - 4 | YES | LINE | DNV | 560-563 | GATE 1 - 4 | YES | LINE | DNV |
| 565-566 | CATTLE GUARD TOP (CLOSED) 1 - 2 | YES | LINE | DNV | 565-566 | CATTLE GUARD TOP (CLOSED) 1 - 2 | YES | LINE | DNV |
| 570 | FENCE POST | YES | POINT | DNV | 570 | FENCE POST | YES | POINT | DNV |
| PROPERTY MONUMENTS | | | | | PROPERTY MONUMENTS | | | | |
| 580 | PROPERTY CORNER | YES | POINT | DNV | 580 | PROPERTY CORNER | YES | POINT | DNV |
| 581 | RIGHT OF WAY MONUMENT | YES | POINT | DNV | 581 | RIGHT OF WAY MONUMENT | YES | POINT | DNV |
| 582 | SECTION CORNER | YES | POINT | DNV | 582 | SECTION CORNER | YES | POINT | DNV |
| 583 | FENCE CORNER AS PROPERTY CORNER | YES | POINT | DNV | 583 | FENCE CORNER AS PROPERTY CORNER | YES | POINT | DNV |
| 584 | CALCULATED RIGHT OF WAY CORNER | YES | POINT | DNV | | | | | |
| 585 | CALCULATED PROPERTY CORNER | YES | POINT | DNV | 585 | CALCULATED PROPERTY CORNER | YES | POINT | DNV |
| 586 | PREDICTED PROPERTY CORNER | YES | POINT | DNV | 586 | PREDICTED PROPERTY CORNER | YES | POINT | DNV |
| 590-595 | APPARENT PROPERTY LINE 1 - 6 | YES | LINE | DNV | 590-595 | APPARENT PROPERTY LINE 1 - 6 | YES | LINE | DNV |

| TELEVISION UTILITY | | | |
|--------------------|---|-----|-----------|
| 600-607 | UNDERGROUND TV CABLE 1 - 8 | YES | LINE DNU |
| 608 - 609 | MULTIPLE UNDERGROUND TV CABLE 1 - 2 | YES | LINE DNU |
| 610-613 | ABOVEGROUND TV CABLE 1 - 4 | YES | LINE DNU |
| 614 - 615 | MULTIPLE ABOVEGROUND TV CABLE 1 - 2 | YES | LINE DNU |
| 620-621 | UNDERGROUND TV SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 625-626 | ABOVEGROUND TV SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 630 | TV PEDESTAL | NO | POINT DNU |
| 631 | TV MANHOLE TOP | YES | POINT DNU |
| 632 | TV MANHOLE BOTTOM INVERT SHOT | NO | POINT DNU |
| 633 | TV UTILITY MARKER | YES | POINT DNU |
| 634 | TV TEST HOLE | YES | POINT DNU |
| 635 - 638 | UNDERGROUND TV FIBER OPTIC 1 - 4 | YES | LINE DNU |
| 640 - 643 | ABOVEGROUND TV FIBER OPTIC 1 - 4 | YES | LINE DNU |
| 645 - 646 | MULTIPLE UNDERGROUND TV FIBER OPTIC 1 - 2 | YES | LINE DNU |
| 648 - 649 | MULTIPLE ABOVEGROUND TV FIBER OPTIC 1 - 2 | YES | LINE DNU |

| ELECTRICITY UTILITY | | | |
|---------------------|--|-----|------------|
| 650 | POWER POLE | YES | POINT DNU |
| 651 | POWER POLE DEADMAN | NO | POINT DNU |
| 652 | COMBINATION POLE | YES | POINT DNU |
| 653 | GUY POLE | YES | POINT DNU |
| 654 | POWER JUNCTION BOX | NO | POINT DNU |
| 655 | POWER VAULT | YES | POINT DNU |
| 656 | POWER TRANSFORMER | YES | POINT DNU |
| 657 | POWER TRANSMISSION TOWER | YES | CLOSED DNU |
| 658 | POWER DROP | NO | POINT DNU |
| 659 | ELECTRIC UTILITY MARKER | YES | POINT DNU |
| 660-667 | UNDERGROUND POWER LINE 1 - 8 | YES | LINE DNU |
| 670-673 | ABOVEGROUND POWER LINE 1 - 4 | YES | LINE DNU |
| 680-681 | UNDERGROUND POWER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 685-686 | ABOVEGROUND POWER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 687 | POWER TEST HOLE | YES | POINT DNU |

| GAS UTILITY AND PIPELINE | | | |
|--------------------------|--------------------------------------|-----|-----------|
| 700-707 | UNDERGROUND GAS LINE 1 - 8 | YES | LINE DNU |
| 710-713 | ABOVEGROUND GAS LINE 1 - 4 | YES | LINE DNU |
| 715-716 | UNDERGROUND GAS SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 718-719 | ABOVEGROUND GAS SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 720-723 | UNDERGROUND GAS LINE CASING 1 - 4 | YES | LINE DNU |
| 725-728 | ABOVEGROUND GAS LINE CASING 1 - 4 | YES | LINE DNU |
| 730 | GAS VALVE | NO | POINT DNU |
| 731 | GAS METER | NO | POINT DNU |
| 732 | GAS SERVICE (NO METER) | NO | POINT DNU |
| 733 | GAS REGULATOR | NO | POINT DNU |
| 734 | GAS RISER | NO | POINT DNU |
| 735 | GAS TEST BOX | NO | POINT DNU |
| 736 | GAS VENT | NO | POINT DNU |
| 737 | GAS WELL | YES | POINT DNU |
| 738 | OIL WELL | YES | POINT DNU |
| 739 | GAS UTILITY MARKER | YES | POINT DNU |
| 740-745 | UNDERGROUND PIPELINE 1 - 6 | YES | LINE DNU |
| 750-753 | ABOVEGROUND PIPELINE 1 - 4 | YES | LINE DNU |
| 760-763 | UNDERGROUND PIPELINE CASING 1 - 4 | YES | LINE DNU |
| 765-768 | ABOVEGROUND PIPELINE CASING 1 - 4 | YES | LINE DNU |
| 770 | PIPELINE VENT | NO | POINT DNU |
| 771 | PIPELINE REGULATOR | NO | POINT DNU |
| 772 | PIPELINE UTILITY MARKER | YES | POINT DNU |
| 773 | GAS TEST HOLE | YES | POINT DNU |
| 774 | PIPELINE TEST HOLE | YES | POINT DNU |

| RAILROAD | | | |
|----------|-------------------------------------|-----|------------|
| 780-789 | RAILROAD TRACK RAIL TOP 1 - 10 | YES | LINE DNU |
| 790 | RAILROAD MILEPOST | YES | POINT DNU |
| 791 | RAILROAD TRAFFIC SIGNAL | NO | POINT DNU |
| 792 | RAILROAD TRAFFIC SIGNAL CONTROL BOX | YES | POINT DNU |
| 793 | RAILROAD SWITCH | NO | POINT DNU |
| 795-799 | RAILROAD TRACK CENTERLINE 1 - 5 | YES | LINE BREAK |

| SEWER | | | |
|---------|----------------------------------|-----|-----------|
| 800-807 | SEWER LINE INVERT 1 - 8 | YES | LINE DNU |
| 810-815 | SEWER FORCE MAIN TOP 1 - 6 | YES | LINE DNU |
| 820 | SEWER MANHOLE TOP | YES | POINT DNU |
| 821 | SEWER MANHOLE BOTTOM INVERT SHOT | NO | POINT DNU |
| 822 | SEWER CLEANOUT | NO | POINT DNU |
| 823 | SEWER BLOWOUT VALVE | NO | POINT DNU |
| 824 | SEWER SEPTIC TANK | NO | POINT DNU |
| 825 | SEWER PUMP | NO | POINT DNU |
| 826 | SEWER LINE INVERT SHOT | YES | POINT DNU |
| 827 | SEWER UTILITY MARKER | YES | POINT DNU |
| 828 | SEWER TEST HOLE | YES | POINT DNU |
| 830 | SEWER LIFT STATION (POINT) | NO | POINT DNU |
| 831 | SEWER LIFT STATION (CLOSED) | NO | LINE DNU |
| 835 | SEWER TREATMENT PLANT (POINT) | NO | POINT DNU |
| 836 | SEWER TREATMENT PLANT (CLOSED) | NO | LINE DNU |

| TELEVISION UTILITY | | | |
|--------------------|---|-----|-----------|
| 600-607 | UNDERGROUND TV CABLE 1 - 8 | YES | LINE DNU |
| 608 - 609 | MULTIPLE UNDERGROUND TV CABLE 1 - 2 | YES | LINE DNU |
| 610-613 | ABOVEGROUND TV CABLE 1 - 4 | YES | LINE DNU |
| 614 - 615 | MULTIPLE ABOVEGROUND TV CABLE 1 - 2 | YES | LINE DNU |
| 620-621 | UNDERGROUND TV SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 625-626 | ABOVEGROUND TV SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 630 | TV PEDESTAL | NO | POINT DNU |
| 631 | TV MANHOLE TOP | YES | POINT DNU |
| 632 | TV MANHOLE BOTTOM INVERT SHOT | NO | POINT DNU |
| 633 | TV UTILITY MARKER | YES | POINT DNU |
| 634 | TV TEST HOLE | YES | POINT DNU |
| 635 - 638 | UNDERGROUND TV FIBER OPTIC 1 - 4 | YES | LINE DNU |
| 640 - 643 | ABOVEGROUND TV FIBER OPTIC 1 - 4 | YES | LINE DNU |
| 645 - 646 | MULTIPLE UNDERGROUND TV FIBER OPTIC 1 - 2 | YES | LINE DNU |
| 648 - 649 | MULTIPLE ABOVEGROUND TV FIBER OPTIC 1 - 2 | YES | LINE DNU |

| ELECTRICITY UTILITY | | | |
|---------------------|--|-----|------------|
| 650 | POWER POLE | YES | POINT DNU |
| 651 | POWER POLE DEADMAN | NO | POINT DNU |
| 652 | COMBINATION POLE | YES | POINT DNU |
| 653 | GUY POLE | YES | POINT DNU |
| 654 | POWER JUNCTION BOX | NO | POINT DNU |
| 655 | POWER VAULT | YES | POINT DNU |
| 656 | POWER TRANSFORMER | YES | POINT DNU |
| 657 | POWER TRANSMISSION TOWER | YES | CLOSED DNU |
| 658 | POWER DROP | NO | POINT DNU |
| 659 | ELECTRIC UTILITY MARKER | YES | POINT DNU |
| 660-667 | UNDERGROUND POWER LINE 1 - 8 | YES | LINE DNU |
| 670-673 | ABOVEGROUND POWER LINE 1 - 4 | YES | LINE DNU |
| 680-681 | UNDERGROUND POWER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 685-686 | ABOVEGROUND POWER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 687 | POWER TEST HOLE | YES | POINT DNU |

| GAS UTILITY AND PIPELINE | | | |
|--------------------------|--------------------------------------|-----|-----------|
| 700-707 | UNDERGROUND GAS LINE 1 - 8 | YES | LINE DNU |
| 710-713 | ABOVEGROUND GAS LINE 1 - 4 | YES | LINE DNU |
| 715-716 | UNDERGROUND GAS SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 718-719 | ABOVEGROUND GAS SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 720-723 | UNDERGROUND GAS LINE CASING 1 - 4 | YES | LINE DNU |
| 725-728 | ABOVEGROUND GAS LINE CASING 1 - 4 | YES | LINE DNU |
| 730 | GAS VALVE | NO | POINT DNU |
| 731 | GAS METER | NO | POINT DNU |
| 732 | GAS SERVICE (NO METER) | NO | POINT DNU |
| 733 | GAS REGULATOR | NO | POINT DNU |
| 734 | GAS RISER | NO | POINT DNU |
| 735 | GAS TEST BOX | NO | POINT DNU |
| 736 | GAS VENT | NO | POINT DNU |
| 737 | GAS WELL | YES | POINT DNU |
| 738 | OIL WELL | YES | POINT DNU |
| 739 | GAS UTILITY MARKER | YES | POINT DNU |
| 740-745 | UNDERGROUND PIPELINE 1 - 6 | YES | LINE DNU |
| 750-753 | ABOVEGROUND PIPELINE 1 - 4 | YES | LINE DNU |
| 760-763 | UNDERGROUND PIPELINE CASING 1 - 4 | YES | LINE DNU |
| 765-768 | ABOVEGROUND PIPELINE CASING 1 - 4 | YES | LINE DNU |
| 770 | PIPELINE VENT | NO | POINT DNU |
| 771 | PIPELINE REGULATOR | NO | POINT DNU |
| 772 | PIPELINE UTILITY MARKER | YES | POINT DNU |
| 773 | GAS TEST HOLE | YES | POINT DNU |
| 774 | PIPELINE TEST HOLE | YES | POINT DNU |

| RAILROAD | | | |
|----------|-------------------------------------|-----|------------|
| 780-789 | RAILROAD TRACK RAIL TOP 1 - 10 | YES | LINE DNU |
| 790 | RAILROAD MILEPOST | YES | POINT DNU |
| 791 | RAILROAD TRAFFIC SIGNAL | NO | POINT DNU |
| 792 | RAILROAD TRAFFIC SIGNAL CONTROL BOX | YES | POINT DNU |
| 793 | RAILROAD SWITCH | NO | POINT DNU |
| 795-799 | RAILROAD TRACK CENTERLINE 1 - 5 | YES | LINE BREAK |

| SEWER | | | |
|---------|----------------------------------|-----|-----------|
| 800-807 | SEWER LINE INVERT 1 - 8 | YES | LINE DNU |
| 810-815 | SEWER FORCE MAIN TOP 1 - 6 | YES | LINE DNU |
| 820 | SEWER MANHOLE TOP | YES | POINT DNU |
| 821 | SEWER MANHOLE BOTTOM INVERT SHOT | NO | POINT DNU |
| 822 | SEWER CLEANOUT | NO | POINT DNU |
| 823 | SEWER BLOWOUT VALVE | NO | POINT DNU |
| 824 | SEWER SEPTIC TANK | NO | POINT DNU |
| 825 | SEWER PUMP | NO | POINT DNU |
| 826 | SEWER LINE INVERT SHOT | YES | POINT DNU |
| 827 | SEWER UTILITY MARKER | YES | POINT DNU |
| 828 | SEWER TEST HOLE | YES | POINT DNU |
| 830 | SEWER LIFT STATION (POINT) | NO | POINT DNU |
| 831 | SEWER LIFT STATION (CLOSED) | NO | LINE DNU |
| 835 | SEWER TREATMENT PLANT (POINT) | NO | POINT DNU |
| 836 | SEWER TREATMENT PLANT (CLOSED) | NO | LINE DNU |

| TRAFFIC | | | |
|-----------|--|-----|-----------|
| 837 - 838 | UNDERGROUND TRAFFIC SIGNAL POWER 1 - 2 | YES | LINE DNU |
| 839 - 840 | ABOVEGROUND TRAFFIC SIGNAL POWER 1 - 2 | YES | LINE DNU |
| 841 | UNDERGROUND TRAFFIC INTERCONNECT LINE | YES | LINE DNU |
| 842 | UNDERGROUND TRAFFIC LOOP DETECTOR LINE | YES | LINE DNU |
| 843 - 844 | UNDERGROUND TRAFFIC FIBER OPTIC | YES | LINE DNU |
| 845 - 846 | ABOVEGROUND TRAFFIC FIBER OPTIC | YES | LINE DNU |
| 847 | DYNAMIC MESSAGE SIGN | YES | LINE DNU |
| 848 | DYNAMIC MESSAGE SIGN SUPPORT | YES | POINT DNU |
| 849 | MISCELLANEOUS TRAFFIC POLE | YES | POINT DNU |
| 850 | TRAFFIC SIGNAL STANDARD | YES | POINT DNU |
| 851 | CABLE SUSPENDED TRAFFIC SIGNAL POLE | YES | POINT DNU |
| 852 | CANTILEVERED TRAFFIC SIGNAL POLE | YES | POINT DNU |
| 853 | TRAFFIC SIGNAL DEADMAN | NO | POINT DNU |
| 854 | TRAFFIC SIGNAL POWER VAULT | YES | POINT DNU |
| 855 | TRAFFIC SIGNAL CONTROL BOX | YES | POINT DNU |
| 856 | TRAFFIC COUNTER | NO | POINT DNU |
| 857 | TRAFFIC SIGN | YES | POINT DNU |
| 858 | FEDERAL AID MARKER | YES | POINT DNU |
| 859 | PARKING METER | NO | POINT DNU |
| 860 | TRAFFIC LIGHT STANDARD | YES | POINT DNU |
| 861 | TRAFFIC LIGHT STANDARD POWER VAULT | YES | POINT DNU |
| 862 | TRAFFIC CAMERA POLE | YES | POINT DNU |
| 863 | TRAFFIC CAMERA CONTROL BOX | YES | POINT DNU |
| 864 | TRAFFIC PULL BOX | YES | POINT DNU |
| 865 | OVERHEAD SIGN TRUSS | YES | LINE DNU |
| 866 | OVERHEAD SIGN TRUSS SUPPORT | YES | POINT DNU |
| 867-868 | UNDERGROUND TRAFFIC CAMERA LINE 1 - 2 | YES | LINE DNU |
| 869 | ABOVEGROUND TRAFFIC CAMERA LINE | YES | LINE DNU |

| TELEPHONE UTILITY | | | |
|-------------------|--|-----|-----------|
| 870-877 | UNDERGROUND TELEPHONE LINE 1 - 8 | YES | LINE DNU |
| 880-883 | ABOVEGROUND TELEPHONE LINE 1 - 4 | YES | LINE DNU |
| 885-886 | UNDERGROUND TELEPHONE LINE CASING 1 - 2 | YES | LINE DNU |
| 887-888 | ABOVEGROUND TELEPHONE LINE CASING 1 - 2 | YES | LINE DNU |
| 890-891 | UNDERGROUND TELE SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 895-896 | ABOVEGROUND TELE SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 900 | TELEPHONE BOOTH | NO | POINT DNU |
| 901 | TELEPHONE CROSS CONNECT BOX | YES | POINT DNU |
| 902 | TELEPHONE PEDESTAL | NO | POINT DNU |
| 903 | TELEPHONE MANHOLE TOP | YES | POINT DNU |
| 904 | TELEPHONE MANHOLE BOTTOM INVERT SHOT | NO | POINT DNU |
| 905 | TELEPHONE POLE | YES | POINT DNU |
| 906 | TELEPHONE POLE DEADMAN | NO | POINT DNU |
| 907 | TELEPHONE PRESSURE BOX | NO | POINT DNU |
| 908 | TELEPHONE UTILITY MARKER | YES | POINT DNU |
| 909 | TELEPHONE TEST HOLE | YES | POINT DNU |
| 910-917 | MULTIPLE UNDERGROUND TELEPHONE LINES 1 - 8 | YES | LINE DNU |
| 920-923 | MULTIPLE ABOVEGROUND TELEPHONE LINES 1 - 4 | YES | LINE DNU |
| 930-937 | UNDERGROUND TELEPHONE FIBER OPTIC LINE 1 - 4 | YES | LINE DNU |
| 938 - 939 | MULTIPLE UNDERGROUND TELE FIBER OPTIC 1 - 2 | YES | LINE DNU |
| 940-943 | ABOVEGROUND TELEPHONE FIBER OPTIC LINE 1 - 4 | YES | LINE DNU |
| 944 - 645 | MULTIPLE ABOVEGROUND TELE FIBER OPTIC 1 - 2 | YES | LINE DNU |

| WATER UTILITY | | | |
|---------------|--|-----|-----------|
| 950-957 | UNDERGROUND WATER LINE 1 - 8 | YES | LINE DNU |
| 960-963 | ABOVEGROUND WATER LINE 1 - 4 | YES | LINE DNU |
| 965-966 | UNDERGROUND WATER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 970-971 | ABOVEGROUND WATER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 975 | WATER VALVE | NO | POINT DNU |
| 976 | WATER METER | NO | POINT DNU |
| 977 | FIRE HYDRANT | NO | POINT DNU |
| 978 | WATER VALVE VAULT | YES | POINT DNU |
| 979 | WATER TOWER (CLOSED) | YES | LINE DNU |
| 980 | WATER CLEANOUT | NO | POINT DNU |
| 981 | WATER WELL | YES | POINT DNU |
| 982 | WATER UTILITY MARKER | YES | POINT DNU |
| 983 | WATER TEST HOLE | YES | POINT DNU |
| 990-993 | UNDERGROUND WATER LINE CASING 1 - 4 | YES | LINE DNU |
| 995-998 | ABOVEGROUND WATER LINE CASING 1 - 4 | YES | LINE DNU |

| TRAFFIC | | | |
|-----------|--|-----|-----------|
| 837 - 838 | UNDERGROUND TRAFFIC SIGNAL POWER 1 - 2 | YES | LINE DNU |
| 839 - 840 | ABOVEGROUND TRAFFIC SIGNAL POWER 1 - 2 | YES | LINE DNU |
| 841 | TRAFFIC INTERCONNECT LINE | YES | LINE DNU |
| 842 | TRAFFIC LOOP DETECTOR LINE | YES | LINE DNU |
| 843 - 844 | UNDERGROUND TRAFFIC FIBER OPTIC | YES | LINE DNU |
| 845 - 846 | ABOVEGROUND TRAFFIC FIBER OPTIC | YES | LINE DNU |
| 847 | DYNAMIC MESSAGE SIGN | YES | LINE DNU |
| 848 | DYNAMIC MESSAGE SIGN SUPPORT | YES | POINT DNU |
| 849 | MISCELLANEOUS TRAFFIC POLE | YES | POINT DNU |
| 850 | TRAFFIC SIGNAL STANDARD | YES | POINT DNU |
| 851 | CABLE SUSPENDED TRAFFIC SIGNAL POLE | YES | POINT DNU |
| 852 | CANTILEVERED TRAFFIC SIGNAL POLE | YES | POINT DNU |
| 853 | TRAFFIC SIGNAL DEADMAN | NO | POINT DNU |
| 854 | TRAFFIC SIGNAL POWER VAULT | YES | POINT DNU |
| 855 | TRAFFIC SIGNAL CONTROL BOX | YES | POINT DNU |
| 856 | TRAFFIC COUNTER | NO | POINT DNU |
| 857 | TRAFFIC SIGN | YES | POINT DNU |
| 858 | FEDERAL AID MARKER | YES | POINT DNU |
| 859 | PARKING METER | NO | POINT DNU |
| 860 | TRAFFIC LIGHT STANDARD | YES | POINT DNU |
| 861 | TRAFFIC LIGHT STANDARD POWER VAULT | YES | POINT DNU |
| 862 | TRAFFIC CAMERA POLE | YES | POINT DNU |
| 863 | TRAFFIC CAMERA CONTROL BOX | YES | POINT DNU |
| 864 | TRAFFIC PULL BOX | YES | POINT DNU |
| 865 | OVERHEAD SIGN TRUSS | YES | LINE DNU |
| 866 | OVERHEAD SIGN TRUSS SUPPORT | YES | POINT DNU |
| 867-868 | UNDERGROUND TRAFFIC CAMERA LINE 1 - 2 | YES | LINE DNU |
| 869 | ABOVEGROUND TRAFFIC CAMERA LINE | YES | LINE DNU |

| TELEPHONE UTILITY | | | |
|-------------------|--|-----|-----------|
| 870-877 | UNDERGROUND TELEPHONE LINE 1 - 8 | YES | LINE DNU |
| 880-883 | ABOVEGROUND TELEPHONE LINE 1 - 4 | YES | LINE DNU |
| 885-886 | UNDERGROUND TELEPHONE LINE CASING 1 - 2 | YES | LINE DNU |
| 887-888 | ABOVEGROUND TELEPHONE LINE CASING 1 - 2 | YES | LINE DNU |
| 890-891 | UNDERGROUND TELE SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 895-896 | ABOVEGROUND TELE SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 900 | TELEPHONE BOOTH | NO | POINT DNU |
| 901 | TELEPHONE CROSS CONNECT BOX | YES | POINT DNU |
| 902 | TELEPHONE PEDESTAL | NO | POINT DNU |
| 903 | TELEPHONE MANHOLE TOP | YES | POINT DNU |
| 904 | TELEPHONE MANHOLE BOTTOM INVERT SHOT | NO | POINT DNU |
| 905 | TELEPHONE POLE | YES | POINT DNU |
| 906 | TELEPHONE POLE DEADMAN | NO | POINT DNU |
| 907 | TELEPHONE PRESSURE BOX | NO | POINT DNU |
| 908 | TELEPHONE UTILITY MARKER | YES | POINT DNU |
| 909 | TELEPHONE TEST HOLE | YES | POINT DNU |
| 910-917 | MULTIPLE UNDERGROUND TELEPHONE LINES 1 - 8 | YES | LINE DNU |
| 920-923 | MULTIPLE ABOVEGROUND TELEPHONE LINES 1 - 4 | YES | LINE DNU |
| 930-937 | UNDERGROUND TELEPHONE FIBER OPTIC LINE 1 - 4 | YES | LINE DNU |
| 938 - 939 | MULTIPLE UNDERGROUND TELE FIBER OPTIC 1 - 2 | YES | LINE DNU |
| 940-943 | ABOVEGROUND TELEPHONE FIBER OPTIC LINE 1 - 4 | YES | LINE DNU |
| 944 - 645 | MULTIPLE ABOVEGROUND TELE FIBER OPTIC 1 - 2 | YES | LINE DNU |

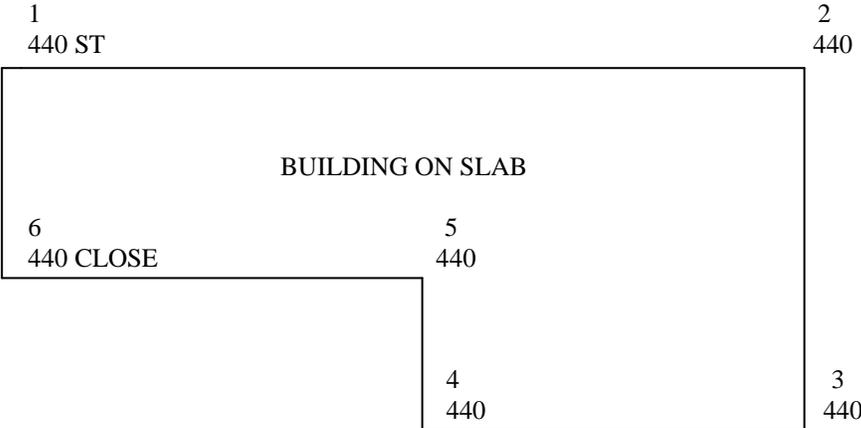
| WATER UTILITY | | | |
|---------------|--|-----|-----------|
| 950-957 | UNDERGROUND WATER LINE 1 - 8 | YES | LINE DNU |
| 960-963 | ABOVEGROUND WATER LINE 1 - 4 | YES | LINE DNU |
| 965-966 | UNDERGROUND WATER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 970-971 | ABOVEGROUND WATER SINGLE SERVICE 1 - 2 | NO | LINE DNU |
| 975 | WATER VALVE | NO | POINT DNU |
| 976 | WATER METER | NO | POINT DNU |
| 977 | FIRE HYDRANT | NO | POINT DNU |
| 978 | WATER VALVE VAULT | YES | POINT DNU |
| 979 | WATER TOWER (CLOSED) | YES | LINE DNU |
| 980 | WATER CLEANOUT | NO | POINT DNU |
| 981 | WATER WELL | YES | POINT DNU |
| 982 | WATER UTILITY MARKER | YES | POINT DNU |
| 983 | WATER TEST HOLE | YES | POINT DNU |
| 990-993 | UNDERGROUND WATER LINE CASING 1 - 4 | YES | LINE DNU |
| 995-998 | ABOVEGROUND WATER LINE CASING 1 - 4 | YES | LINE DNU |

| MISCELLANEOUS | | | | MISCELLANEOUS | | | | | |
|---|--------------------------------------|-----|-------|---|-------------|--------------------------------------|-----|-------|-----|
| 1000 | MULTIPOLE BILLBOARD CENTERLINE | YES | LINE | DNU | 1000 | MULTIPOLE BILLBOARD CENTERLINE | YES | LINE | DNU |
| 1001 | MONOPOLE BILLBOARD CENTERLINE | YES | LINE | DNU | 1001 | MONOPOLE BILLBOARD CENTERLINE | YES | LINE | DNU |
| 1002 | MONOPOLE BILLBOARD SUPPORT POLE | YES | POINT | DNU | 1002 | MONOPOLE BILLBOARD SUPPORT POLE | YES | POINT | DNU |
| 1005 | SIGN | YES | LINE | DNU | 1005 | SIGN | YES | LINE | DNU |
| 1006 | SIGN POLE | YES | POINT | DNU | 1006 | SIGN POLE | YES | POINT | DNU |
| 1007 | MISC. POLE | YES | POINT | DNU | 1007 | MISC. POLE | YES | POINT | DNU |
| 1010 | MAILBOX BANK | YES | LINE | DNU | 1010 | MAILBOX BANK | YES | LINE | DNU |
| 1011 | MAILBOX | NO | POINT | DNU | 1011 | MAILBOX | NO | POINT | DNU |
| 1015 | GRAVE | NO | POINT | DNU | 1015 | GRAVE | NO | POINT | DNU |
| 1016 | CEMETERY | NO | LINE | DNU | 1016 | CEMETERY | NO | LINE | DNU |
| 1020 | PLACE TEXT | YES | POINT | DNU | 1020 | PLACE TEXT | YES | POINT | DNU |
| 1025 | ABOVEGROUND STORAGE TANK (POINT) | YES | POINT | DNU | 1025 | ABOVEGROUND STORAGE TANK (POINT) | YES | POINT | DNU |
| 1026 | ABOVEGROUND STORAGE TANK (CLOSED) | YES | LINE | DNU | 1026 | ABOVEGROUND STORAGE TANK (CLOSED) | YES | LINE | DNU |
| 1030 | STORAGE TANK VENT | NO | POINT | DNU | 1030 | STORAGE TANK VENT | NO | POINT | DNU |
| 1035 | UNDERGROUND STORAGE TANK (POINT) | YES | POINT | DNU | 1035 | UNDERGROUND STORAGE TANK (POINT) | YES | POINT | DNU |
| 1036 | UNDERGROUND STORAGE TANK (CLOSED) | YES | LINE | DNU | 1036 | UNDERGROUND STORAGE TANK (CLOSED) | YES | LINE | DNU |
| 1040 | FUEL PUMP | NO | POINT | DNU | 1040 | FUEL PUMP | NO | POINT | DNU |
| 1041 | MONITORING WELL | YES | POINT | DNU | 1041 | MONITORING WELL | YES | POINT | DNU |
| 1042 | SILO | YES | POINT | DNU | 1042 | SILO | YES | POINT | DNU |
| 1043 | MISCELLANEOUS TOWER (CLOSED) | YES | LINE | DNU | 1043 | MISCELLANEOUS TOWER (CLOSED) | YES | LINE | DNU |
| 1044 | FLAG POLE | YES | POINT | DNU | 1044 | FLAG POLE | YES | POINT | DNU |
| 1045 | GENERAL / PRIVATE LIGHTING | YES | POINT | DNU | 1045 | GENERAL / PRIVATE LIGHTING | YES | POINT | DNU |
| 1046 | MISCELLANEOUS TOWER (POINT) | YES | POINT | DNU | 1046 | MISCELLANEOUS TOWER (POINT) | YES | POINT | DNU |
| 1047 | MISCELLANEOUS TOWER GUY ANCHOR | YES | POINT | DNU | 1047 | MISCELLANEOUS TOWER GUY ANCHOR | YES | POINT | DNU |
| 1050 | MECHANICAL (POINT) | YES | POINT | DNU | 1050 | MECHANICAL (POINT) | YES | POINT | DNU |
| 1051 | MECHANICAL (CLOSED) | YES | LINE | DNU | 1051 | MECHANICAL (CLOSED) | YES | LINE | DNU |
| 1055 | OVERHEAD STRUCTURE (POINT) | YES | POINT | DNU | 1055 | OVERHEAD STRUCTURE (POINT) | YES | POINT | DNU |
| 1056 | OVERHEAD STRUCTURE (LINE) | YES | LINE | DNU | 1056 | OVERHEAD STRUCTURE (LINE) | YES | LINE | DNU |
| 1057 | OVERHEAD STRUCTURE SUPPORT (POINT) | YES | POINT | DNU | 1057 | OVERHEAD STRUCTURE SUPPORT (POINT) | YES | POINT | DNU |
| 1058 | OVERHEAD STRUCTURE SUPPORT (LINE) | YES | LINE | DNU | 1058 | OVERHEAD STRUCTURE SUPPORT (LINE) | YES | LINE | DNU |
| UNLISTED POINT | | | | UNLISTED POINT | | | | | |
| 1100-1110 | POINT 0 - 10 | YES | POINT | DNU | 1100-1110 | POINT 0 - 10 | YES | POINT | DNU |
| UNLISTED LINE | | | | UNLISTED LINE | | | | | |
| 1150-1160 | LINE 0 - 10 | YES | LINE | DNU | 1150-1160 | LINE 0 - 10 | YES | LINE | DNU |
| ROUND PIPE CULVERT INVERT 1 - 6 (SIZED) | | | | ROUND PIPE CULVERT INVERT 1 - 6 (SIZED) | | | | | |
| 2000 - 2005 | 8" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2000 - 2005 | 8" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2010 - 2015 | 10" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2010 - 2015 | 10" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2020 - 2025 | 12" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2020 - 2025 | 12" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2030 - 2035 | 15" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2030 - 2035 | 15" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2040 - 2045 | 18" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2040 - 2045 | 18" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2050 - 2055 | 21" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2050 - 2055 | 21" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2060 - 2065 | 24" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2060 - 2065 | 24" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2070 - 2075 | 27" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2070 - 2075 | 27" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2080 - 2085 | 30" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2080 - 2085 | 30" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2090 - 2095 | 33" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2090 - 2095 | 33" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2100 - 2105 | 36" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2100 - 2105 | 36" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2110 - 2115 | 42" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2110 - 2115 | 42" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2120 - 2125 | 48" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2120 - 2125 | 48" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2130 - 2135 | 54" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2130 - 2135 | 54" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2140 - 2145 | 60" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2140 - 2145 | 60" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2150 - 2155 | 66" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2150 - 2155 | 66" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2160 - 2165 | 72" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2160 - 2165 | 72" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2170 - 2175 | 78" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2170 - 2175 | 78" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2180 - 2185 | 84" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2180 - 2185 | 84" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2190 - 2195 | 90" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2190 - 2195 | 90" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2200 - 2205 | 96" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2200 - 2205 | 96" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2210 - 2215 | 102" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2210 - 2215 | 102" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2220 - 2225 | 108" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2220 - 2225 | 108" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2230 - 2235 | 114" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2230 - 2235 | 114" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2240 - 2245 | 120" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2240 - 2245 | 120" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2250 - 2255 | 126" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2250 - 2255 | 126" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2260 - 2265 | 132" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2260 - 2265 | 132" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2270 - 2275 | 138" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2270 - 2275 | 138" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |
| 2280 - 2285 | 144" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB | 2280 - 2285 | 144" ROUND PIPE CULVERT INVERT 1 - 6 | YES | LINE | SUB |

PART 3
CONTROL CODE
DETAILS

CLOSE

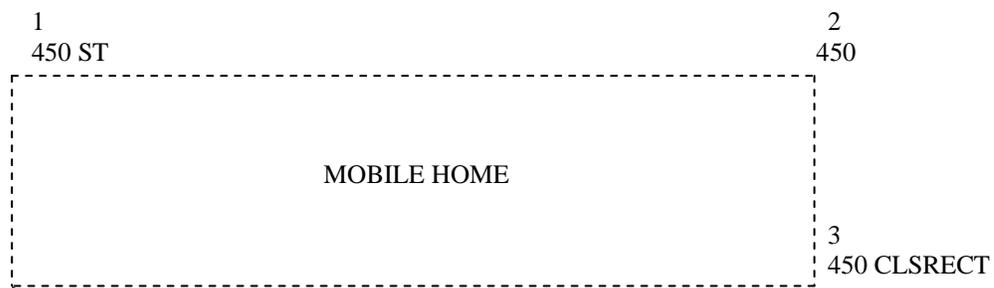
The close code will join from the current point to the first point in the sequence of points that have the same code as the current point.



CLSRECT

When three points on a rectangular figure have been observed , this code is used for automatic computation of the fourth corner.

Control codes that compute unobserved points can not be used on dtm features.

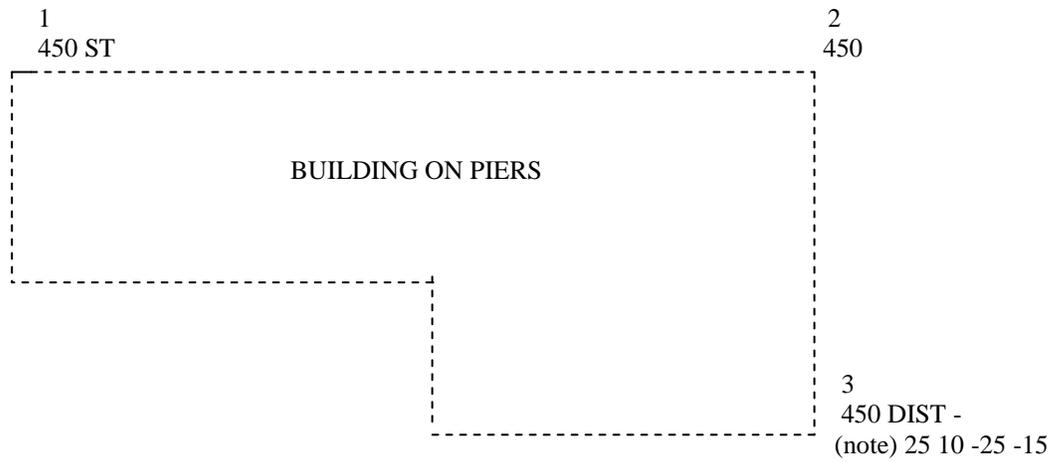


The x,y and z coordinates for the fourth unobserved corner of the feature will be computed and drawn as shown.

DIST

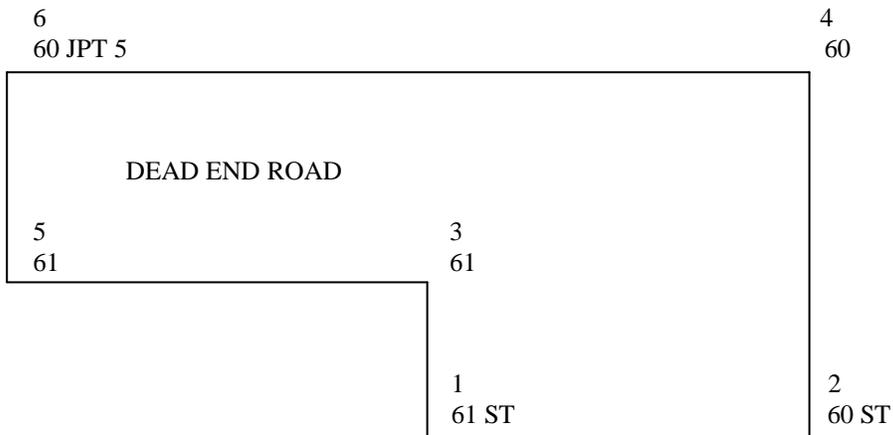
By entering a NOTE record with this code and the measured dimensions around a figure the coordinates of each corner represented by the measured dimensions will be computed .

Control codes that compute unobserved points can not be used on dtm features.



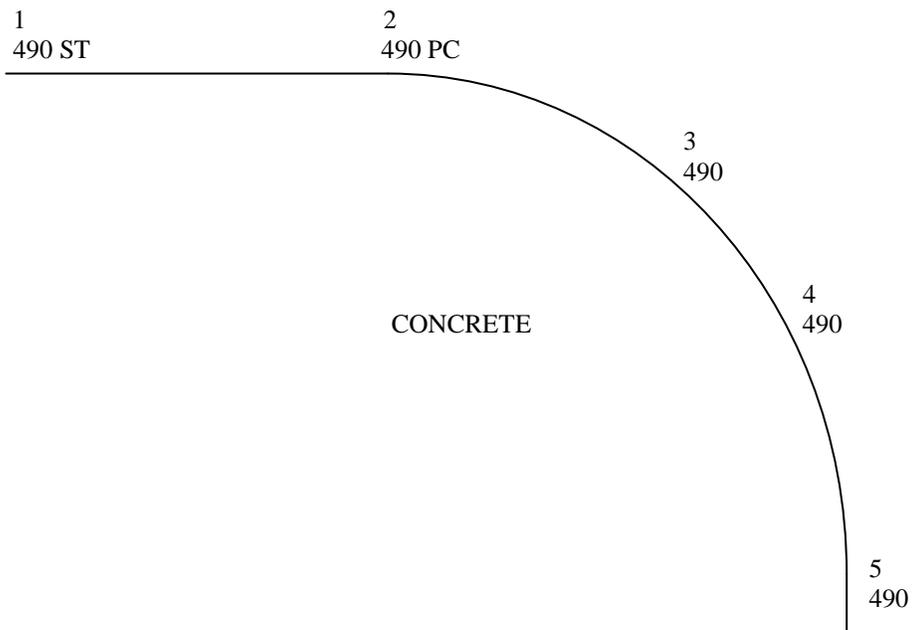
JPT

By entering this code followed by any point number a line is drawn from the current point to the specified point. The line style will be that of the current point.



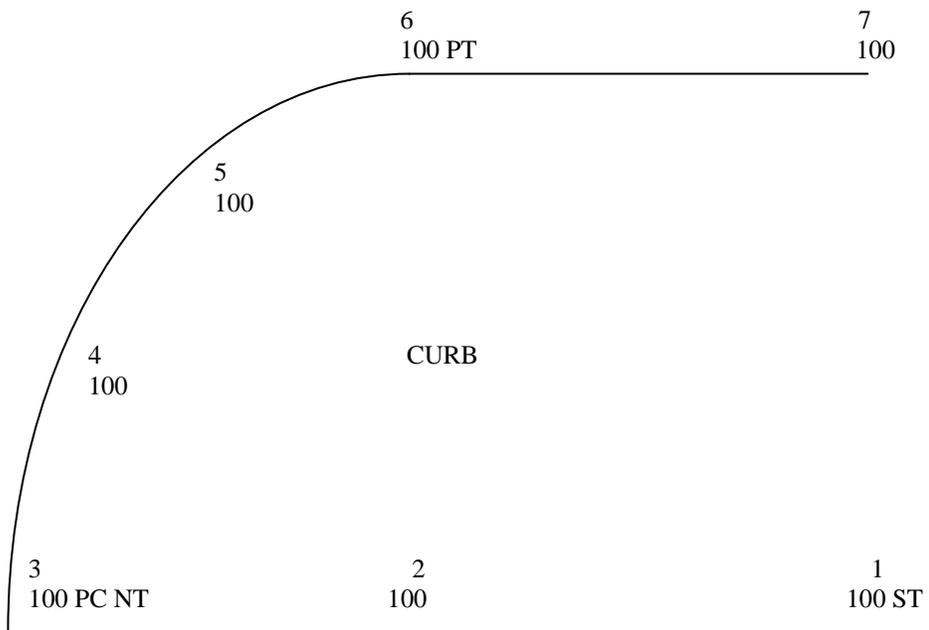
PC

Starts a smooth curve tangent to the preceding tangent.



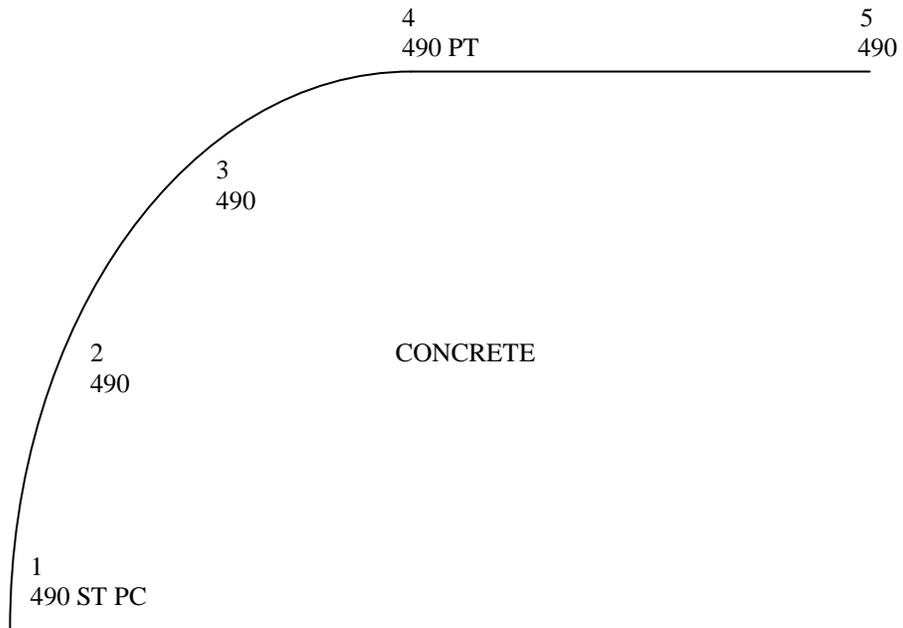
PC NT

Starts a smooth curve nontangent to a preceding tangent.



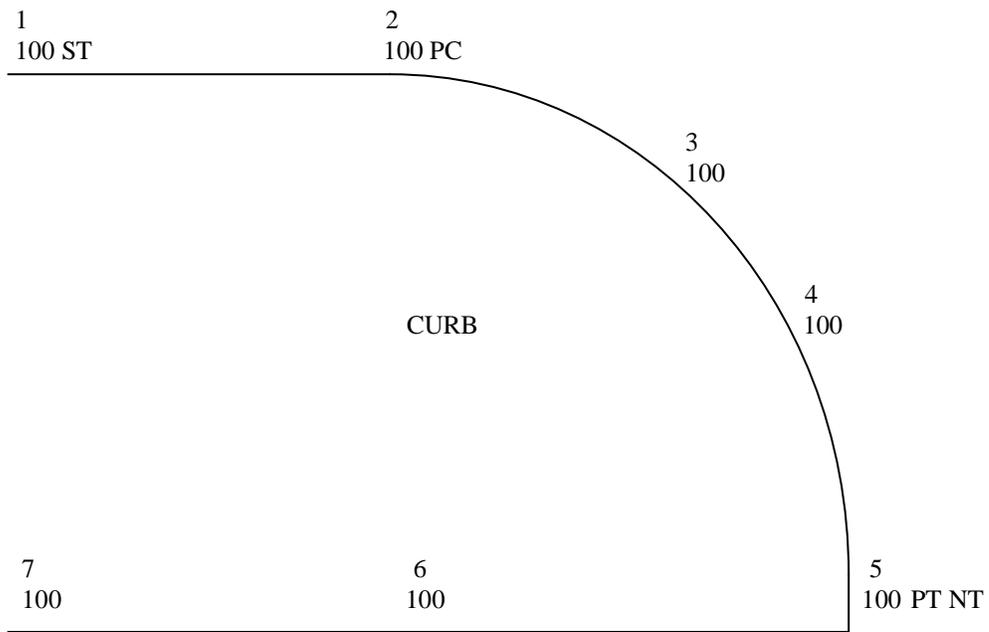
PT

Ends a smooth curve tangent to the tangent ahead.



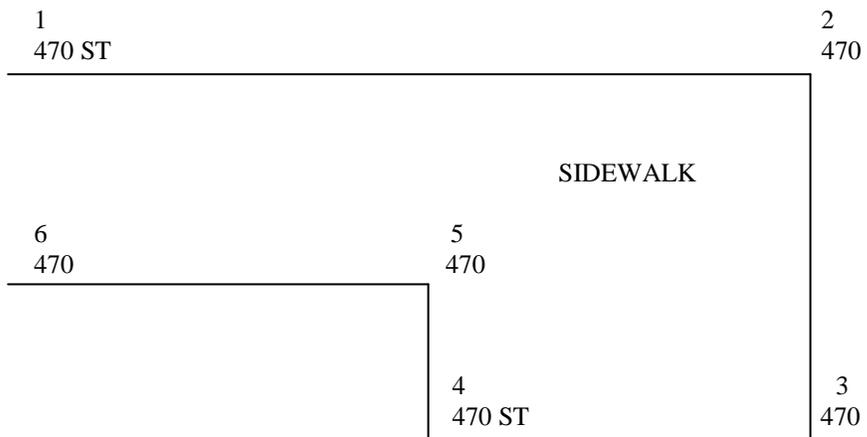
PT NT

Ends a smooth curve nontangent to the tangent ahead.



ST

Starts a new line sequence. Suppresses the join feature from a previous point of the same code to the current point.
Starts a join sequence that can be utilized by the CLOSE and CLSRECT control codes.



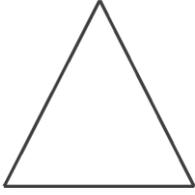
TMPL

This code allows the definition of a three dimensional template. This definition is accomplished by entering this code at the start of a line that will be a part of the template and then observing the start points of the other lines that define the template. After the template is defined only the start line of the template need be observed for the entire length of the structure represented by the template.

To end the template, enter a new 100ST, 101ST or 102ST.

| | | | |
|-------------|-----|-----|-----|
| 1 | 4 | 5 | 6 |
| 100 ST TMPL | 100 | 100 | 100 |
| <hr/> | | | |
| 2 | | | |
| 101 ST | | | |
| <hr/> | | | |
| 3 | | | |
| 102 ST | | | |
| <hr/> | | | |

PART 4
FEATURE CODE
DETAILS



PRIMARY CONTROL POINT CODE 1

The “primary control point” code is used for a point whose elevation and x and y state plane coordinates are known. These points will not be adjusted in any adjustments to a traverse run to and/or from them. Any documentation of points used should be delivered to Headquarters along with the finished survey data. All primary control points used in a traverse must be described and referenced in the electronic survey data files.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

IE: BRASS DISK IN CONCRETE, IRON ROD, COTTON PICKER SPINDLE

PT.NAME The name assigned to the point if applicable.

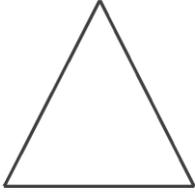
IE: 12V99, GPS1, DOTD1

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is occupied by the instrument as a station of the survey control traverse, the instrument must be set to the fine measuring mode and two full positions measured (F1, F2, F2, F1 – F1, F2, F2, F1).



HORIZONTAL CONTROL POINT CODE 2

The “horizontal control point” code is used for a point whose x and y state plane coordinates only are known.

These points will not be adjusted for x and y in any adjustments to a traverse run to and/or from them.

These points will require running levels from other points of known elevation to determine an elevation for the point.

Any documentation of points used and level notes recorded in a level book should be delivered to Headquarters along with the finished survey data.

All horizontal control points used in a traverse must be described and referenced in the electronic survey data files.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

IE: BRASS DISK IN CONCRETE, IRON ROD, COTTON PICKER SPINDLE

PT.NAME The name assigned to the point if applicable.

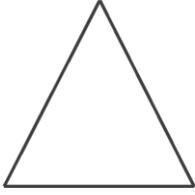
IE: 12V99, GPS1, DOTD1

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is occupied by the instrument as a station of the survey control traverse, the instrument must be set to the fine measuring mode and two full positions measured (F1, F2, F2, F1 – F1, F2, F2, F1).



CONTROL BENCHMARK CODE 3

The “Control Benchmark” code is used for a control point whose elevation only is known.

Any documentation of points used should be delivered to Headquarters along with the finished survey data.

All control benchmarks located by total station must be described and referenced in the electronic survey data files.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

IE: BRASS DISK IN CONCRETE, IRON ROD, COTTON PICKER SPINDLE

PT.NAME The name assigned to the point if applicable.

IE: 12V99, GPS1, DOTD1

DTM;

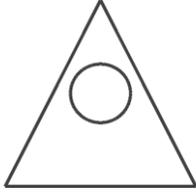
This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.

The elevation of all vertical control points located by total station must be overwritten with the elevation published for the point .

Level notes recorded in a level book should be delivered to Headquarters along with the finished survey data.



TEMPORARY BENCHMARK CODE 4

The “temporary benchmark” code is used for a point that is set in the field for the purpose of monumenting vertical control.

This point should be an iron rod if set in the ground, a cotton picker spindle or pk and/or mag nail if set in asphalt, an x chisled if set in concrete, a railroad spike or 60d nail if set in a tree, whenever possible. This point should be set outside of the limits of construction whenever possible. Avoid the use of utility structures such as power poles and fire hydrants whenever possible.

All temporary benchmarks located by total station must be described and referenced in the electronic survey data files.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 60D

MATRL The material that the point is made of.

IE: IRON ROD, COTTON PICKER SPINDLE, NAIL, X CHISLED, RR SPIKE

WHERE Description of points location.

IE: IN POWER POLE, IN ROOT OF TREE, END OF HEADWALL

PT.NAME Point name

IE: TBM 1, TBM 2, TBM 3

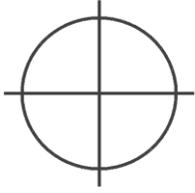
DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.

The total station computed elevation of these points will not be accurate enough for vertical control . It will be necessary to run conventional levels to these points and overwrite the total station elevation with the conventional level elevation. Level notes recorded in a level book should be delivered to Headquarters along with the finished survey data when applicable.



TRAVERSE POINT CODE 5

The “traverse point” code is used for a point that is set in the field and is occupied as a station of the survey control traverse.

The x, and y state plane coordinates of these points will be adjusted if adjustment to the traverse is determined to be necessary.

This point should be an iron rod if set in the ground, a cotton picker spindle if set in asphalt, a concrete nail if set in concrete, whenever possible.

This point is to be described and referenced in the electronic survey data file.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 60D

MATRL The material that the point is made of.

IE: IRON ROD, COTTON PICKER SPINDLE, NAIL

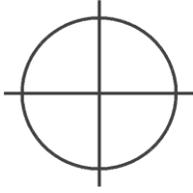
DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is occupied by the instrument as a station of the survey control traverse, the instrument must be set to the fine measuring mode and two full positions measured (F1, F2, F2, F1 – F1, F2, F2, F1).

The elevations of traverse points produced by a survey total station are not accurate enough for survey control therefore they must be overwritten by elevations determined by conventional leveling. Level notes recorded in a level book should be delivered to Headquarters along with the finished survey data.



TOPO POINT CODE 6

The “topo point” code is used for a point that is set in the field to be used as an instrument setup or backsight while collecting survey topography.

This point should be a 60d nail if set in the ground, a concrete nail, mag nail, or pk nail if set in concrete or asphalt, whenever possible.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the point.

IE: 60D

MATRL The material that the point is made of.

IE: NAIL

DTM;

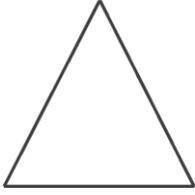
This point will not be used as a dtm point.

Observation requirements;

When this point is set the instrument must be set to the fine measuring mode and one full position measured (F1, F2, F2, F1).

The total station computed elevation of these points will not be accurate enough for vertical control . It will be necessary to run conventional levels to these points and overwrite the total station elevation with the conventional level elevation.

Level notes recorded in a level book should be delivered to Headquarters along with the finished survey data when applicable.



CONTROL POINT REFERENCE MARK CODE 7

The “control point reference mark” code is used for a point that is set in the field to be used to relocate other survey control points (codes 1 through 5).

This point should be set in such a manner that a person could easily hold the end of a measuring tape to the mark and measure to the location of the point being referenced.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the point.

IE: 10D

MATRL The material that the point is made of.

IE: NAIL AND BOTTLE CAP

WHERE Description of points location.

IE: IN TRUNK OF OAK, IN POWER POLE

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.

A JPT control code should be used to draw a line to the point being referenced.

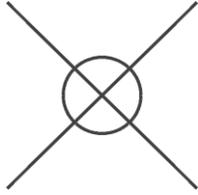


PHOTO TARGET CODE 8

The “photo target” code is used for a point that represents the center point of an aerial photography photo target.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the target. Measured as a decimal of the project working units.

IE: 2.0 X 16.0 CROSS

MATRL The material that the point is made of.

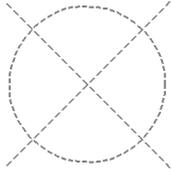
IE: SHEETROCK, PLASTIC

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.



TRAVERSE CLOSING POINT CODE 9

The “traverse closing point” code is used at the end of a closed traverse for observations to previously numbered closing traverse points.

This point is to be described in the electronic survey data file.

Attributes;

PT.NAME The original point number of the closing point

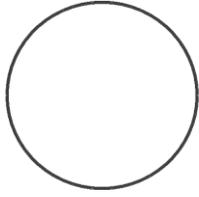
IE: 1, 2, 3, 4

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is occupied by the instrument as a station of the survey control traverse, the instrument must be set to the fine measuring mode and two full positions measured (F1, F2, F2, F1 – F1, F2, F2, F1).



FIELD SURVEY POINT OF CURVATURE CODE 20

The “field survey point of curvature” code is used for a point that is set in the field for the purpose of monumenting the PC of a field survey alignment (codes 25 through 30).

This point should be an iron rod if set in the ground, a cotton picker spindle if set in asphalt, a concrete nail if set in concrete, whenever possible.

This point is to be described and referenced in the electronic survey data file.

Attributes

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

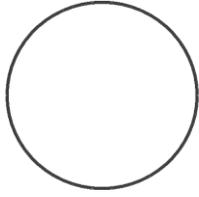
IE: IRON ROD, COTTON PICKER SPINDLE

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.



FIELD SURVEY POINT OF INTERSECTION CODE 21

The “field survey point of intersection” code is used for a point that is set in the field for the purpose of monumenting the PI of a field survey alignment (codes 25 through 30).

This point should be an iron rod if set in the ground, a cotton picker spindle if set in asphalt, a concrete nail if set in concrete, whenever possible.

This point is to be described and referenced in the electronic survey data file.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

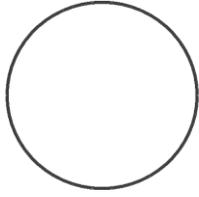
IE: IRON ROD, COTTON PICKER SPINDLE

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.



FIELD SURVEY POINT OF TANGENCY CODE 22

The “field survey point of tangency” code is used for a point that is set in the field for the purpose of monumenting the PT of a field survey alignment (codes 25 through 30).

This point should be an iron rod if set in the ground, a cotton picker spindle if set in asphalt, a concrete nail if set in concrete, whenever possible.

This point is to be described and referenced in the electronic survey data file.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

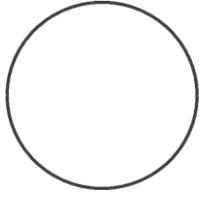
IE: IRON ROD, COTTON PICKER SPINDLE

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.



FIELD SURVEY POINT ON TANGENT CODE 23

The “field survey point on tangent” code is used for a point that is set in the field for the purpose of monumenting the POT of a field survey alignment (codes 25 through 30).

This point should be an iron rod if set in the ground, a cotton picker spindle if set in asphalt, a concrete nail if set in concrete, whenever possible.

This point is to be described and referenced in the electronic survey data file.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

IE: IRON ROD, COTTON PICKER SPINDLE

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.



VERIFICATION OBSERVATION POINT CODE 24

The “verification observation point” code is used for observations to previously numbered control points for the purpose of verifying position and/or error checking.

This point is to be described in the electronic survey data file.

Attributes;

PT.NAME The original point number of the point observed.

IE: 1, 2, 3, 4

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.

FIELD SURVEY ALIGNMENT CODES 25 THROUGH 30

The “field survey alignment” code is used for a line that is monumented in the field to be used for linear reference along a project.

This line may be computed and monumented as a best fit to an existing roadway, or it may be computed and monumented along a new route where there is no existing roadway. This line may also have been computed and monumented in the past as a part of an earlier project.

Placing and monumenting an alignment is accomplished by setting points with codes 20 through 23 and using dual codes to draw the alignment line.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.

CROWN OF ROAD CODES 47 THROUGH 54

The “crown of road” code is used for a line that represents a dtm breakline on the surface of the roadway.

This line may or maynot be along the centerline of the roadway. Some roadways will have a crown that is offset to one side or the other. Some roadways have no crown at all, as they are flat from road edge to road edge.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the roadway.

IE: STATE, CITY, PARISH, PRIVATE

NUMBER The road number if applicable.

IE: 16, 190, I-10

RD.NAME The road name if applicable.

IE: AIRLINE HWY, FLORIDA BLVD

MATRL The material that the road is made of.

IE: CONCRETE, ASPHALT, GRAVEL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

PAVEMENT EDGE CODES 55 THROUGH 69

The “pavement edge” code is used for a line that represents the edge of the roadway pavement.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the road is made of.

IE: CONCRETE, ASPHALT, GRAVEL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SHOULDER EDGE CODES 70 THROUGH 79

The “shoulder edge” code is used for a line that represents the edge of the roadway shoulder.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the shoulder is made of.

IE: CONCRETE, ASPHALT, GRAVEL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SLOPE TOE CODES 80 THROUGH 89

The “slope toe” code is used for a line that represents the bottom edge of slope.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CRASH WALL BASE CODES 90 THROUGH 92

The “crash wall base” code is used for a line that represents the edge of the base at the ground of a crash wall.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the wall is made of.

IE: CONCRETE, WOOD, METAL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CRASH WALL TOP CODES 93 THROUGH 95

The “crash wall top” code is used for a line that represents the top edge of a crash wall.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the wall is made of.

IE: CONCRETE, WOOD, METAL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CURB CODES 100 THROUGH 119

The “curb” code is used for a line that represents one of the edges of a curb.

It will typically require the simultaneous use of several curb lines to define a curb.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the curb is made of.

IE: CONCRETE, ASPHALT

TYPE Description of curb type.

IE: BARRIER, ROLL OVER, CURB AND GUTTER

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The control code TEMP is ideal for use with curbs and should be utilized whenever possible.

GUTTER

CODES 120 THROUGH 127

The “gutter” code is used for a line that represents one of the edges of an open gutter.

It will typically require the simultaneous use of several gutter lines to define a gutter.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the curb is made of.

IE: CONCRETE, ASPHALT

TYPE Description of curve type

IE: CURB AND GUTTER, ROLL OVER

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The control code TEMP is ideal for use with gutters and should be utilized whenever possible.

CROWN OF BRIDGE DECK CODES 130 THROUGH 133

The “crown of bridge deck” code is used for a line that represents the crown of the surface of the bridge deck.

This line may or maynot be along the centerline of the bridge deck. Some bridge decks will have a crown that is offset to one side or the other. Some bridge decks have no crown at all, as they are flat from deck edge to deck edge.

This line must be described in the electronic survey data file.

Attributes;

NUMBER The structure number of the bridge if applicable.

IE: 3900134588

MATRL The material that the bridge deck is made of.

IE: CONCRETE, ASPHALT, STEEL

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to detail the surface under the bridge for the dtm utilizing any applicable feature codes.

It will be necessary to make a sketch of the bridge in a conventional field book for use in determining cross sectional clearances and areas.

BRIDGE DECK GUTTER LINE CODES 134 THROUGH 139

The “bridge deck gutter line” code is used for a line that represents the gutter line of a bridge deck, also described as edge of clear roadway.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the bridge deck is made of.

IE: CONCRETE, ASPHALT, STEEL

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to detail the surface under the bridge for the dtm utilizing any applicable feature codes.

It will be necessary to make a sketch of the bridge in a conventional field book for use in determining cross sectional clearances and areas.

BRIDGE DECK EDGE CODES 140 THROUGH 147

The “bridge deck edge” code is used for a line that represents the outside edge of a bridge deck.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the bridge deck is made of.

IE: CONCRETE, ASPHALT, STEEL

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to detail the surface under the bridge for the dtm utilizing any applicable feature codes.

It will be necessary to make a sketch of the bridge in a conventional field book for use in determining cross sectional clearances and areas.

BRIDGE DECK JOINT CODES 148 AND 149

The “bridge deck joint” code is used for a line that represents the edge of a bridge deck joint.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the bridge deck joint is made of.

IE: CONCRETE, ASPHALT, STEEL

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BRIDGE CURB CODES 150 THROUGH 159

The “bridge curb” code is used for a line that represents one of the edges of a bridge curb.

It will typically require the simultaneous use of several bridge curb lines to define a bridge curb.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the bridge curb is made of.

IE: CONCRETE, ASPHALT

TYPE Description of bridge curb type.

IE: BARRIER, ROLL OVER, CURB AND GUTTER

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The control code TEMP is ideal for use with bridge curbs and should be utilized whenever possible.

BRIDGE RAIL CODES 160 THROUGH 167

The “bridge rail” code is used for a line that represents one of the edges of a formed concrete bridge rail.

It will typically require the simultaneous use of several bridge rail lines to define a bridge rail.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the bridge rail is made of.

IE: CONCRETE

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The control code TEMP is ideal for use with bridge rails and should be utilized whenever possible.

TOP OF BRIDGE BENT CAP CODES 168 AND 169

The “top of bridge bent cap” code is used for a line that represents the top edge of a bridge bent cap.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the bridge bent cap is made of.

IE: CONCRETE, STEEL, WOOD

DTM;

This line will not be used in the dtm.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BRIDGE HEADWALL TOP CL CODES 170 THROUGH 173

The “bridge headwall top cl” code is used for a line that represents the centerline of the top of a bridge headwall.

This line must be described in the electronic survey data file.

Attributes;

WIDTH The width of the headwall. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.50

MATRL The material that the bridge headwall is made of.

IE: CONCRETE , WOOD

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a bridge headwall.

BRIDGE WINGWALL TOP CL CODES 175 THROUGH 178

The “bridge wingwall top cl” code is used for a line that represents the centerline of the top of a bridge wingwall.

This line must be described in the electronic survey data file.

Attributes;

WIDTH The width of the wingwall. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.50

MATRL The material that the bridge wingwall is made of.

IE: CONCRETE , WOOD

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a bridge wingwall.



GUARDRAIL CENTERLINE CODES 180 THROUGH 183

The “guardrail centerline” code is used for a line that represents the centerline of the top or the base of a guardrail.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the guardrail is made of.

IE: WOOD AND STEEL, WOOD, METAL

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



BRIDGE PILE POINT SQUARE CODE 184

The “bridge pile point square” code is used for a point that represents the center of a single square bridge pile.

This code is to be used to locate a single square bridge pile with only one observation.

If less detail is required, use code 187 "bridge pile (line)".

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the pile. Measured as a decimal of the project working units.

IE: 2.0 X 2.0, 2.5 X 2.5

MATRL The material that the pile is made of.

IE: WOOD, STEEL, CONCRETE

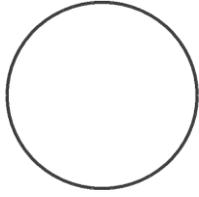
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the data collector should be utilized to locate the center of the pile.



BRIDGE PILE POINT ROUND CODE 185

The “bridge pile point round” code is used for a point that represents the center of a single round bridge pile.

This code is to be used to locate a single round bridge pile with only one observation.

If less detail is required, use code 187 "bridge pile (line)".

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the pile. Measured as a decimal of the project working units.

IE: 2.0, 2.5, 3.0

MATRL The material that the pile is made of.

IE: WOOD, STEEL, CONCRETE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the data collector should be utilized to locate the center of the pile.

BRIDGE PILE (CLOSED) CODE 186

The “bridge pile (closed)” code is used for a line that represents the outline of a single large bridge pile.

If less detail is required, use code 187 "bridge pile (line)".

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the pile is made of.

IE: WOOD, STEEL, CONCRETE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BRIDGE PILE (LINE) CODES 187 AND 189 THROUGH 194

The “bridge pile (line)” code is used for a line that represents the centerline of a row of bridge piles.

This code can be used as a closed figure to locate a cluster of piles.

In the event of a complex array of piles, such as a cluster, it may be necessary to make a sketch of the piles in a conventional field book.

This line is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the piles. Measured as a decimal of the project working units.

IE: 2.0, 2.5, 3.0

MATRL The material that the piles are made of.

IE: WOOD, STEEL, CONCRETE

NO.PILES The number of piles in the row or cluster.

IE: 6, 8, 9

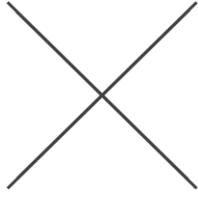
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station should be utilized to locate the true centerline of the row of piles.



BOTTOM OF STRINGER ELEVATION CODE 188

The “bottom of stringer elevation” code is used for a point that represents the location of the bottom of the bridge stringer.

This point will be utilized to determine overhead clearance.

This point was called “cap elevation shot” in previous feature code libraries.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BRIDGE FOOTING CODES 195 THROUGH 199

The “bridge footing” code is used for a line that represents the edge of a bridge footing.

This line is to be described in the electronic survey data file.

Attribute;

MATRL The material that the footing is made of.

IE: CONCRETE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

WATER BODY CENTERLINE CODES 200 THROUGH 203

The “water body centerline” code is used for a line that represents the centerline of a stream or river.

This line is different from the ditch centerline in that it typically applies to a crossing channel usually with a continuous flow of water.

This line must be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: ALLIGATOR BAYOU, BOEUF BAYOU

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

WATER BODY BANK CODES 210 THROUGH 217

The “water body bank” code is used for a line that represents the bank of a stream or river.

There may be more than one bank on each side of the stream or river.

This line is different from the ditch bank code in that it typically applies to a crossing channel usually with a continuous flow of water.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

WATER'S EDGE CODES 220 THROUGH 227

The “water’s edge” code is used for a line that represents the edge of the water of a stream or river that has a continuous flow of water.

This line must be described in the electronic survey data file.

Attributes;

WB.NAME The name of the stream or river.

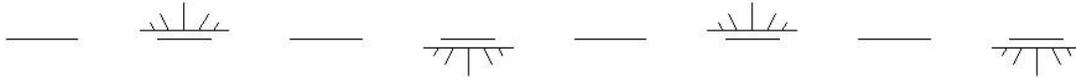
IE: MISSISSIPPI RIVER, BOEUF BAYOU

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SWAMP LINE CODES 230 THROUGH 233

The “swamp line” code is used for a line that represents the edge of a swamp.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MARSH LINE CODES 240 THROUGH 243

The “marsh line” code is used for a line that represents the edge of a marsh.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



HIGH WATER MARK CODE 245

The “high water mark” code is used for a point that represents the high elevation of the water at a bridge or cross drain.

This point should be identified by the best evidence available at the site. High water markings on bridge piles, testimony of local residents, marks set and identified by local residents, surveyors, and/or local officials are all examples of types of evidence of high water.

This point must be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: WATER MARK ON PILE, LOCAL RESIDENT TESTOMONY

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TOP OF WATER ELEVATION CODE 246

The “top of water elevation” code is used for a point that represents the elevation of the surface of the water of a water body at a single point.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



PIPE CULVERT INVERT CODES 250 THROUGH 255

The “pipe culvert invert” code is used for a line that represents the centerline of a pipe culvert at it’s invert.

In the event a pipe culvert is silted in, it will be necessary to dig out the silt at each point observed to locate the true invert of the pipe.

A pipe culvert invert is different than a pipe crossdrain invert in that the pipe culvert does not cross the road and a pipe crossdrain does.

This line must be described in the electronic survey data file.

Attributes;

SIZE The diameter of the pipe. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL ARCH

DTM; See note below.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

NOTE; New codes numbered between 2000 and 2285, round pipe culvert invert (sized) and codes numbered between 2600 and 3035, arch pipe culvert invert (sized), have been created to use in place of codes 250 through 255.

Codes 250 through 255 remain in the feature code library so that old survey data using these codes will still work with added functionality. These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as an arrow head pointer whose point is located at the invert of the pipe.

PIPE CROSSDRAIN INVERT CODES 260 THROUGH 263

The “pipe crossdrain invert” code is used for a line that represents the centerline of a pipe crossdrain at its invert.

In the event a pipe crossdrain is silted in, it will be necessary to dig out the silt at each point observed to locate the true invert of the pipe.

A pipe crossdrain invert is different than a pipe culvert invert in that the pipe crossdrain crosses the road and a pipe culvert does not.

This line must be described in the electronic survey data file.

Attributes;

SIZE The diameter of the pipe. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL ARCH

DTM; See note below.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

NOTE; New codes numbered between 2300 and 2583, round pipe crossdrain invert (sized) and codes numbered between 3040 and 3258, arch pipe crossdrain invert (sized), have been created to use in place of codes 260 through 263.

Codes 260 through 263 remain in the feature code library so that old survey data using these codes will still work with added functionality. These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as an arrow head pointer whose point is located at the invert of the pipe.

BOX CULVERT INVERT

CODES 265 THROUGH 268

The “box culvert invert” code is used for a line that represents the outline of a box culvert at it’s invert.

The use of this code will typically result in a 4 sided closed figure .

In the event a box culvert is silted in, it will be necessary to dig out the silt at each point observed to locate the true inverts of the box.

A box culvert invert is different than a box crossdrain invert in that the box culvert does not cross the road and a box crossdrain does.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the box is made of.

IE: CONCRETE

NO.OPEN The number of openings.

IE: 1, 2, 3, 4

WIDTH The width of the openings of the box. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

HEIGHT The height of the openings of the box. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

DTM; See note below

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

NOTE; New codes numbered between 5000 and 5203, box culvert invert (sized), have been created to use in place of codes 265 through 268.

Codes 265 through 268 remain in the feature code library so that old survey data using these codes will still work with added functionality. These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as an arrow head pointer whose point is located at the invert of the box.

BOX CROSSDRAIN INVERT

CODES 270 THROUGH 273

The “box crossdrain invert” code is used for a line that represents the outline of a box crossdrain at its invert.

The use of this code will typically result in a 4 sided closed figure .

In the event a box crossdrain is silted in, it will be necessary to dig out the silt at each point observed to locate the true inverts of the box.

A box crossdrain invert is different than a box culvert invert in that the box crossdrain crosses the road and a box culvert does not.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the box is made of.

IE: CONCRETE

NO.OPEN The number of openings.

IE: 1, 2, 3, 4

WIDTH The width of the openings of the box. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

HEIGHT The height of the openings of the box. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

DTM; See note below

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

NOTE; New codes numbered between 5300 and 5503, box crossdrain invert (sized), have been created to use in place of codes 270 through 273.

Codes 270 through 273 remain in the feature code library so that old survey data using these codes will still work with added functionality. These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as an arrow head pointer whose point is located at the invert of the box.

DRAINAGE HEADWALL TOP CL CODES 275 THROUGH 278

The “drainage headwall top cl” code is used for a line that represents the centerline of the top of a drainage headwall.

This line must be described in the electronic survey data file.

Attributes;

WIDTH The width of the headwall. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.50

MATRL The material that the headwall is made of.

IE: CONCRETE , WOOD

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a drainage headwall.

DRAINAGE WINGWALL TOP CL CODES 280 THROUGH 283

The “drainage wingwall top cl” code is used for a line that represents the centerline of the top of a drainage wingwall.

This line must be described in the electronic survey data file.

Attributes;

WIDTH The width of the wingwall. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.50

MATRL The material that the wingwall is made of.

IE: CONCRETE , WOOD

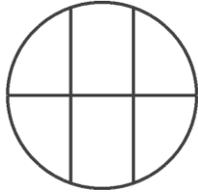
DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a drainage wingwall.



CATCH BASIN TOP (POINT) CODE 285

The “catch basin top (point)” code is used for a point that represents the top center of a single catch basin.

This code is to be used to locate a single catch basin with only one observation.

If more detail is required, use code 286 “catch basin top (closed)”.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the catch basin is made of.

IE: STEEL, CONCRETE, BRICK

SIZE The length and width of the catch basin. Measured as a decimal of the project working units.

IE: 2.0 X 4.0, 1.5 X 3.5

DTM;

This point will be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CATCH BASIN TOP (CLOSED) CODE 286

The “catch basin top (closed)” code is used for a line that represents the top outline of a catch basin.

The use of this code will typically result in a 4 sided closed figure.

If less detail is required, use code 285 “catch basin top (point)”.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the catch basin is made of.

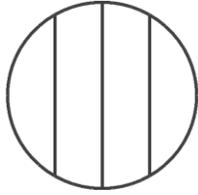
IE: STEEL, CONCRETE, BRICK

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



DROP INLET TOP (POINT) CODE 290

The “drop inlet top (point)” code is used for a point that represents the top center of a single drop inlet.

This code is to be used to locate a single drop inlet with only one observation.

If more detail is required, use code 291 “drop inlet top (closed)”.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the drop inlet is made of.

IE: STEEL, CONCRETE, BRICK

SIZE The length and width of the drop inlet. Measured as a decimal of the project working units.

IE: 2.0 X 4.0, 1.5 X 3.5

DTM;

This point will be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

DROP INLET TOP (CLOSED) CODE 291

The “drop inlet top (closed)” code is used for a line that represents the top outline of a drop inlet.

The use of this code will typically result in a 4 sided closed figure.

If less detail is required, use code 290 “drop inlet top (point)”.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the drop inlet is made of.

IE: STEEL, CONCRETE, BRICK

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



DRAINAGE MANHOLE TOP CODE 295

The “drainage manhole top” code is used for a point that represents the top center of a single drainage manhole.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the manhole is made of.

IE: STEEL, CONCRETE, BRICK

SIZE The length and width and/or diameter of the manhole. Measured as a decimal of the project working units.

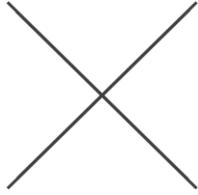
IE: 2.0 X 4.0, 1.5 X 3.5 , 3.0, 3.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



DRAINAGE BOTTOM INVERT SHOT CODE 296

The “drainage bottom invert shot” code is used for a point that represents the location of the bottom of a drainage basin, inlet and/or manhole.

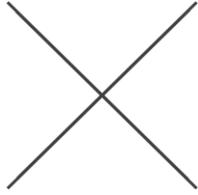
This point will determine the invert elevation of the structure.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



DRAINAGE PIPE INVERT SHOT CODE 297

The “drainage pipe invert shot” code is used for a point that represents the location of the invert of one end of a drainage pipe where the other end of the pipe falls outside the limits of the survey.

This point must be described in the electronic survey data file.

Attributes;

SIZE The diameter of the pipe. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL ARCH

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

DTM BREAKLINE CODES 300 THROUGH 324

The “dtm breakline” code is used for a line that represents an edge on the surface that has no other applicable code.

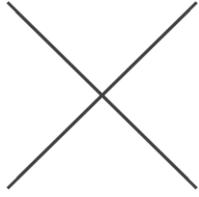
Dtm breaklines are abundant on most survey projects and are critical to define the true surface.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ELEVATION SHOT CODE 325

The “elevation shot” code is used for a point that represents the elevation of the surface at a single point.

DTM;

This point will be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SCANNED ELEVATION SHOT CODE 326

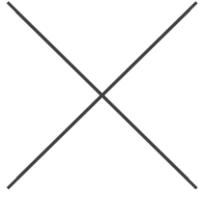
The “scanned elevation shot” code is used for a point that represents the elevation of the surface at a single scanned point. The cell placed by this code is small because of the tight pattern of points associated with scanning.

DTM;

This point will be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode .



WATER BOTTOM SHOT CODE 330

The “water bottom shot” code is used for a point that represents the elevation of the bottom of a water body, stream, pond or lake at a single point.

This code is to be used for elevation shots underwater only.

DTM;

This point will be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

WATER BOTTOM BREAKLINE CODES 331 THROUGH 334

The “water bottom breakline” code is used for a line that represents an edge on the bottom of a water body that has no other applicable code.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

FLOOD PROTECTION STRUCTURE TOP CODES 335 THROUGH 339

The “flood protection structure top” code is used for a line that represents the top center of a flood protection structure.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the flood protection structure is made of.

IE: DIRT, CONCRETE

WIDTH The width of the flood protection structure as decimal of the working units.

IE: 1.0, 1.5, 2.0

MOVE Is the flood protection structure moveable.

IE: YES, NO

INFO Information.

IE: POOR CONDITION, LEANING, GOOD CONDITION

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument. It will typically require the use of dtm breaklines (codes 300 through 311) or elevation shots (code 325) on the ground at the base of the structure to adequately define the structure.

DITCH TOP CODES 340 THROUGH 347

The “ditch top” code is used for a line that represents the top edge of a ditch.

Many times there will be more than one ditch edge on each side of the ditch.

This line is different from the “water body bank” code in that it typically applies to a drainage ditch which only has a water flow after a rain.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

DITCH TOE CODES 350 THROUGH 357

The “ditch toe” code is used for a line that represents the bottom edge of a ditch.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the ditch is made of.

IE: DIRT, CONCRETE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

DITCH CENTERLINE CODES 360 THROUGH 367

The “ditch centerline” code is used for a line that represents the bottom center of a ditch.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the ditch is made of.

IE: DIRT, CONCRETE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

DITCH BACKSLOPE CODES 370 THROUGH 377

The “ditch backslope” code is used for a line that represents the top back edge of a ditch.

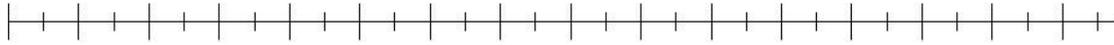
This line is different from the ditch top code in that it specifically applies to the ditch top furthest away from the roadway. There will only be one ditch backslope per ditch. This line may be used to determine location of existing right of way in the absence of any better information.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



LEVEE TOP CODES 380 THROUGH 387

The “levee top” code is used for a line that represents the top edge of a levee.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the levee is made of.

IE: DIRT, CONCRETE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

LEVEE TOE CODES 390 THROUGH 397

The “levee toe” code is used for a line that represents the bottom edge of a levee.

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

RIP RAP CODES 398 AND 399

The “rip rap code is used for a line that represents the top edge of an area of rip rap.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the rip rap is made of.

IE: ROCK, CRUSHED ROCK, BROKEN CONCRETE, BROKEN ASPHALT

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



WOOD'S EDGE CODES 400 THROUGH 405

The “wood’s edge” code is used for a line that represents the edge of a wooded area.

This line must be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

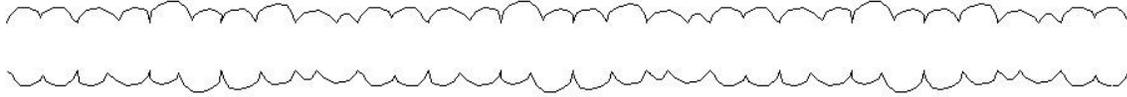
IE: PINE / HARDWOOD, PINE, HARDWOOD / UNDERBRUSH

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TREE LINE CODES 410 THROUGH 415

The “tree line” code is used for a line that represents the centerline of a row of trees.

This line must be described in the electronic survey data file.

Attributes;

INFO1 Any applicable descriptive information.

IE: PINE / HARDWOOD, PINE, HARDWOOD

INFO2 Any applicable descriptive information.

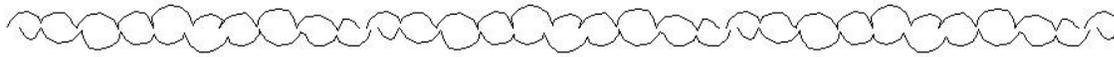
IE: EVIDENCE OF PROPERTY LINE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



HEDGE CODES 420 THROUGH 425

The “hedge” code is used for a line that represents the centerline of a hedge.

This line is to be described in the electronic survey data file.

Attributes;

TYPE The species of the hedge.

IE: LEGUSTRUM, HOLLY, AZALEA

INFO Any applicable descriptive information.

IE: EVIDENCE OF PROPERTY LINE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SHRUBBERY BED CODES 430 THROUGH 433

The “shrubby bed” code is used for a line that represents the outline of a shrubby bed.

This line is to be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: ROSE BED, EXOTIC PLANTS

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SHRUBBERY BOX (CLOSED) CODE 434

The “shrubbery box (closed)” code is used for a line that represents the outline of a shrubbery box.

The use of this code will typically result in a closed figure.

If less detail is required, use code 435 (shrubbery box (point))

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the shrubbery box is made of.

IE: CONCRETE, BRICK, R/R CROSSTIES, WOOD

INFO Any applicable descriptive information.

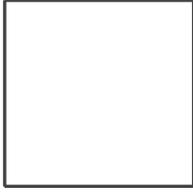
IE: ROSE BED, EXOTIC PLANTS

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SHRUBBERY BOX (POINT) CODE 435

The “shrubbery box (point)” code is used for a point that represents the centerpoint of a shrubbery box.

This code is to be used to locate a single shrubbery box with only one observation.

If more detail is required, use code 434 (shrubbery box closed))

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the shrubbery box is made of.

IE: CONCRETE, BRICK, R/R CROSSTIES, WOOD

SIZE The length and width of the shrubbery box. Measured as a decimal of the project working units.

IE: 2.0 X 4.0, 1.5 X 3.5

INFO Any applicable descriptive information.

IE: ROSE BED, EXOTIC PLANTS

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TREE CODE 436

The “tree” code is used for a point that represents the centerpoint of the trunk of a tree.

This code is to be used to locate a single tree with only one observation.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the tree. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.5, 2.0

TYPE The species of the tree

IE: LIVE OAK, PINE, SYCAMORE, MAPLE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the tree trunk.



BUSH CODE 437

The “bush” code is used for a point that represents the centerpoint of a bush.

This point is to be described in the electronic survey data file.

Attributes;

TYPE The species of the bush.

IE: AZALEA, HOLLY, LEGUSTRUM

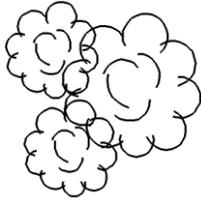
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It may be necessary to utilize the offset observation function of the total station to locate the true center point of the bush.



TREE CLUSTER CODE 438

The “tree cluster” code is used for a point that represents the centerpoint of a cluster and/or group of trees.

This code is to be used to locate a cluster and/or group of trees with only one observation.

This point is to be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: 10 SMALL PINES, MIXED SMALL TREES AND UNDERBRUSH

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BUILDING ON SLAB CODES 440 THROUGH 449

The “building on slab” code is used for a line that represents the top edge of a building slab.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the building is made of.

IE: BRICK, WOOD FRAME, CONCRETE BLOCK, METAL

USE A description of how the building is being used.

IE: RESIDENCE, OFFICE, STORE, WAREHOUSE

MINORITY Is the building owned by a member of a minority race?

IE: YES, NO

INFO Any applicable descriptive information.

IE: POOR CONDITION, VACANT

OVERHANG The width of the building roof overhang. Measured as a decimal of the project working units. NO if no overhang.

IE: 1.0, 2.0, 2.5, NO

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The “dist” control code can not be used with a building on slab code.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a building slab.

BUILDING ON PIERS CODES 450 THROUGH 459

The “building on piers” code is used for a line that represents the bottom edge of a building on piers.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the building is made of.

IE: BRICK, WOOD FRAME, CONCRETE BLOCK, METAL

USE A description of how the building is being used.

IE: RESIDENCE, OFFICE, STORE, WAREHOUSE

MINORITY Is the building owned by a member of a minority race?

IE: YES, NO

INFO Any applicable descriptive information.

IE: POOR CONDITION, VACANT

OVERHANG The width of the building roof overhang. Measured as a decimal of the project working units. NO if no overhang.

IE: 1.0, 2.0, 2.5, NO

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

This line should be located at the bottom edge of the building. This will make it possible to determine the clearance of the house above the ground. It will typically require the use of dtm breaklines (codes 300 through 311) or elevation shots (code 325) on the ground at the building to define the surface under the building.

DRIVEWAY CODES 460 THROUGH 465

The “driveway” code is used for a line that represents the top edge of a driveway.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the driveway is made of.

IE: CONCRETE, ASPHALT, GRAVEL, DIRT

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



FINISHED FLOOR ELEVATION CODE 469

The “finished floor elevation” code is used for a point that represents the elevation of the top of the finished floor of a building at a single point.

This line must be described in the electronic survey data file.

Attributes;

INFO Any applicable information

IE: CONCRETE, WOOD, SMITH RESIDENCE, 500 MAIN STREET

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SIDEWALK CODES 470 THROUGH 475

The “sidewalk” code is used for a line that represents the top edge of a sidewalk.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the sidewalk is made of.

IE: CONCRETE, ASPHALT, BRICK

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

PARKING LOT CODES 480 THROUGH 485

The “parking lot” code is used for a line that represents the top edge of the pavement of a parking lot.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the driveway is made of.

IE: CONCRETE, ASPHALT, GRAVEL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SLAB CODES 490 THROUGH 495

The “slab” code is used for a line that represents the top edge of a slab.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the slab is made of.

IE: CONCRETE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

STAIRS

CODES 500 THROUGH 503

The “stairs” code is used for a line that represents the outline of stairs that rise above the ground.

Stairs will most commonly be found in apartment complexes, office complexes, commercial buildings, hotels, motels, etc.

Stairs are different from steps (codes 505 through 508) in that they are above the ground and steps are in the ground.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the stairs are made of.

IE: CONCRETE, STEEL, WOOD

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

STEPS

CODES 505 THROUGH 508

The “steps” code is used for a line that represents the outline of steps that are built into the ground.

Steps are different from stairs (codes 500 through 503) in that they are built into the ground and stairs are above the ground.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the steps are made of.

IE: CONCRETE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

PIER

CODES 510 THROUGH 513

The “pier” code is used for a line that represents the outline of a pier. In most cases the pier will be built over water and connected to land in some manner.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the pier is made of.

IE: CONCRETE, WOOD

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to detail the surface under the pier for the dtm utilizing any applicable feature codes.

RETAINING WALL TOP CL CODES 515 THROUGH 518

The “retaining wall top cl” code is used for a line that represents the centerline of the top of a retaining wall.

This line must be described in the electronic survey data file.

Attributes;

WIDTH The width of the wall. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.50

MATRL The material that the wall is made of.

IE: CONCRETE , WOOD

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of "base of wall" (codes 530 and 531) at the base of a retaining wall.

PORCH ON SLAB CODES 520 AND 521

The “porch on slab” code is used for a line that represents the top edge of a porch on slab.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the porch is made of.

IE: BRICK, CONCRETE, TILE

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The “dist” control code can not be used with a porch on slab code.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a porch on slab.

PORCH ON PIERS CODES 522 AND 523

The “porch on piers” code is used for a line that represents the top edge of a porch on piers.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the porch is made of.

IE: BRICK, WOOD , CONCRETE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of dtm breaklines (codes 300 through 311) or elevation shots (code 325) on the ground at the porch to define the surface under the porch.

ROOF OVERHANG CODE 525 AND 526

The “roof overhang” code is used for a line that represents the outline of a building’s roof overhang. This code is intended for use when the building’s roof overhang is large and/or extends out away from the building more than ordinary.

A typical example for the use of this code is the outline of the roof overhang over a carport.

Ordinary one or two foot roof overhangs should not be located but should be noted in the attribute prompts when locating the building.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BASE OF WALL CODES 530 AND 531

The “base of wall” code is used for a line that represents a wall at it’s base.

Typical examples of the use of this code would be for locating a party wall, or the base of a retaining wall.

This line must be described in the electronic survey data file.

Attributes;

WIDTH The width of the wall. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.50

HEIGHT The height of the wall. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

MATRL The material that the wall is made of.

IE: CONCRETE , WOOD, BRICK, CONCRETE BLOCK

INFO Any applicable descriptive information.

IE: PARTY WALL, ON PROPERTY LINE, RETAINING WALL

DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CANOPY CODE 535 AND 536

The “canopy” code is used for a line that represents the outline of an overhead canopy.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the canopy is made of.

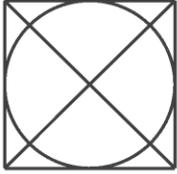
IE: WOOD, METAL

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



CANOPY SUPPORT CODE 537

The canopy support code is used for a point that represents the center of a single canopy support structure.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the support is made of.

IE: STEEL, WOOD, BRICK

SIZE The length and width and/or diameter of the support. Measured as a decimal of the project working units.

IE: 0.25 x 0.25, 0.5 x 0.5, 0.25, 0.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BARRICADE CODES 540 AND 541

The “barricade” code is used for a line that represents the centerline of a barricade at it’s base.

This line must be described in the electronic survey data file.

Attributes;

HEIGHT The height of the barricade. Measured as a decimal of the project working units.

IE: 0.25, 0.5, 1.5, 2.0

MATRL The material that the barricade is made of.

IE: CONCRETE , WOOD, BRICK, METAL

INFO Any applicable descriptive information.

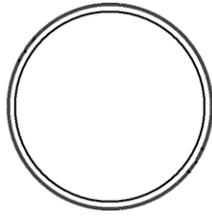
IE: TEMPORARY, POLICE, PARKING

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



BARRICADE POST CODE 544

The “barricade post” code is used for a point that represents the centerpoint of a barricade post.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the post. Measured as a decimal of the project working units.

IE: 1.0, 2.0, 3.0

MATRL The material that the pole is made of.

IE: STEEL

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerpoint of the post.

FOOTING CODES 545 THROUGH 549

The “footing” code is used for a line that represents the outline of the top of a footing.

The use of this code will typically result in a 4 sided closed figure .

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the footing is made of.

IE: CONCRETE

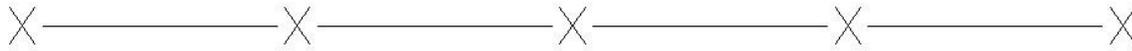
DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will typically require the use of dtm breaklines (codes 300 through 311) at the base of a footing.



FENCE LINE CODES 550 THROUGH 557

The “fence line” code is used for a line that represents the centerline of a fence.

This line must be described in the electronic survey data file.

Attributes;

HEIGHT The height of the fence. Measured as a decimal of the project working units.

IE: 1.5, 2.0

MATRL The material that the fence is made of.

IE: WOOD, BRICK, METAL, 4 STRAND BW, CHAIN LINK

INFO Any applicable descriptive information.

IE: POOR CONDITION, LEANING

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GATE CODES 560 THROUGH 563

The “gate” code is used for a line that represents the centerline of a gate.

This line must be described in the electronic survey data file.

Attributes;

HEIGHT The height of the gate. Measured as a decimal of the project working units.

IE: 1.5, 2.0

MATRL The material that the gate is made of.

IE: WOOD, METAL, CHAIN LINK

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CATTLE GUARD (CLOSED) CODES 565 AND 566

The “cattle guard (closed)” code is used for a line that represents the top outline of a single cattle guard. The use of this code will typically result in a 4 sided closed figure.

It will frequently require running ditch lines under a cattle guard as a cattle guard is much like a small bridge.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the cattle guard is made of.

IE: METAL PIPE, R/R RAILS

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



FENCE POST CODE 570

The “fence post” code is used for a point that represents the centerpoint of a fence post.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the post. Measured as a decimal of the project working units.

IE: 1.0, 2.0, 3.0

MATRL The material that the post is made of.

IE: STEEL, WOOD

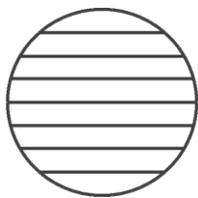
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerpoint of the post.



PROPERTY CORNER CODE 580

The “property corner” code is used for a point that represents the center of a property boundary monument found.

This point must be described in the electronic survey data files.

Attributes;

SIZE The diameter of the point. Measured as a decimal of the project working units.

IE: 0.50, 0.75

MATRL The material that the point is made of.

IE: IRON PIPE, IRON ROD, BUGGY AXLE

INFO Any applicable descriptive information.

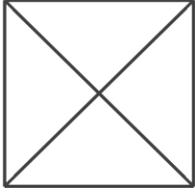
IE: DISTURBED, LEANING, SW COR LOT 10

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed , the instrument must be set to the fine measuring mode and one full position measured (F1, F2, F2, F1).



RIGHT OF WAY MONUMENT CODE 581

The “right of way monument” code is used for a point that represents the center of a road right of way monument found.

This point must be described in the electronic survey data files.

Attributes;

SIZE The size and/or diameter of the monument. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 0.75

MATRL The material that the monument is made of.

IE: CONCRETE

OWNER The owner of the right of way.

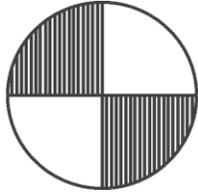
IE: STATE, PARISH, CITY, PRIVATE

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed , the instrument must be set to the fine measuring mode and one full position measured (F1, F2, F2, F1).



SECTION CORNER CODE 582

The “section corner” code is used for a point that represents the center of any public lands survey monument found.

This point can be a section corner, a quarter corner, an eighth corner etc.

This point must be described in the electronic survey data files.

Attributes;

SIZE The size and/or diameter of the monument. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 0.5, 0.75

MATRL The material that the monument is made of.

IE: PINE KNOT, WOOD POST, IRON ROD

INFO Any applicable descriptive information.

IE: SW COR SEC 10, SE COR SW ¼ SEC 10

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed , the instrument must be set to the fine measuring mode and one full position measured (F1, F2, F2, F1).



FENCE CORNER AS PROPERTY CORNER CODE 583

The “fence corner as property corner” code is used for a point that represents the center of a fence corner that is located for the purpose of identifying property boundaries.

This code is intended for use at a location outside of the limits of the topographic survey where property monumentation is being located and where fence lines are not being located .

This point must be described in the electronic survey data files.

Attributes;

SIZE The size and/or diameter of the fence corner. Measured as a decimal of the project working units.

IE: 0.4 X 0.4, 0.50, 0.75

MATRL The material that the point is made of.

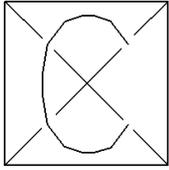
IE: METAL FENCE POST, WOOD FENCE POST

DTM;

This point will not be used as a dtm point.

Observation requirements;

When this point is observed , the instrument must be set to the fine measuring mode and one full position measured (F1, F2, F2, F1).



CALCULATED RIGHT OF WAY CORNER CODE 584

The “calculated right of way corner” code is used for a point that represents the location of a right of way corner that is calculated.

This code is intended to allow for the insertion of calculated right of way corners into the electronic survey data file. Any reference materials used in calculating the right of way corner location should be transmitted to Headquarters along with the survey data.

This point may be described in the electronic survey data files.

Attributes;

INFO1 Any applicable descriptive information.

IE: CALC. BY JOHN DOE

INFO2 Any applicable descriptive information.

IE: SEE ORIG 25 BDLE 2245

DTM;

This point will not be used as a dtm point.



CALCULATED PROPERTY CORNER CODE 585

The “calculated property corner” code is used for a point that represents the location of a property corner that is calculated.

This code is intended to allow for the insertion of calculated property corners into the electronic survey data file. Any reference materials used in calculating the property corner location should be transmitted to Headquarters along with the survey data.

This point may be described in the electronic survey data files.

Attributes;

INFO1 Any applicable descriptive information.

IE: CALC. BY JOHN DOE

INFO2 Any applicable descriptive information.

IE: SEE ORIG 25 BDLE 2245

DTM;

This point will not be used as a dtm point.



PREDICTED PROPERTY CORNER CODE 586

The “predicted property corner” code is used for a point that represents the predicted location of a property corner.

This code is intended to allow for the insertion of predicted property corner coordinates into the electronic survey data file for use in searching for the actual location of the property corner in the field. Any reference materials used in calculating the property corner location should be transmitted to Headquarters along with the survey data.

This point may be described in the electronic survey data files.

Attributes;

INFO1 Any applicable descriptive information.

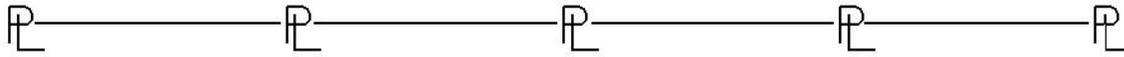
IE: CALC. BY JOHN DOE

INFO2 Any applicable descriptive information.

IE: SEE ORIG 25 BDLE 2245

DTM;

This point will not be used as a dtm point.



APPARENT PROPERTY LINE CODES 590 THROUGH 595

The “apparent property line” code is used for a line that represents the location of what is believed to be a property line.

This code can be used alone or dual coded with property corner (code 580) right of way monument (code 581) section corner (code 582) fence corner as property corner (code 583) and calculated property corner (code 585).

This code will allow for the drawing of apparent property lines in the electronic survey data file. Any reference materials used in determining the property line location should be transmitted to Headquarters along with the survey data.

This line may be described in the electronic survey data files.

Attributes;

INFO1 Any applicable descriptive information.

IE: LINE OF POSSESSION

INFO2 Any applicable descriptive information.

IE: AS PER ORIG 25 BDLE 2245

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument must be set to the fine measuring mode and one observation will be measured to the point in F1 of the instrument.

TV — — — TV — — — TV — — — TV — — — TV

UNDERGROUND TV CABLE CODES 600 THROUGH 607

The “underground tv cable” code is used for a line that represents the location of an underground tv cable.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

— — TV — — — — AL — — — — TV — — — — AL — — — — TV — —

MULTIPLE UNDERGROUND TV CABLE CODES 608 AND 609

The “multiple underground tv cable” code is used for a line that represents the location of multiple underground tv cables in a single location.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

NO.LINE The number of lines

IE: 2, 3, 4, 5

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

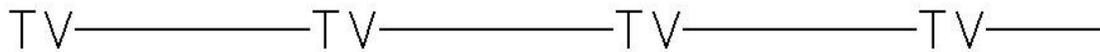
ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.



ABOVEGROUND TV CABLE CODES 610 THROUGH 613

The “aboveground tv cable” code is used for a line that represents the location of an aboveground tv cable.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MULTIPLE ABOVEGROUND TV CABLE CODES 614 AND 615

The “multiple aboveground tv cable” code is used for a line that represents the location of multiple aboveground tv cables in a single location.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

NO.LINE The number of lines

IE: 2, 3, 4, 5

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

TV — — — TV — — — TV — — — TV — — — TV

UNDERGROUND TV SINGLE SERVICE CODES 620 AND 621

The “underground tv single service” code is used for a line that represents the location of an underground tv cable service line connecting to a single user.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

TV———TV———TV———TV———

ABOVEGROUND TV SINGLE SERVICE CODES 625 AND 626

The “aboveground tv single service” code is used for a line that represents the location of an aboveground tv cable service line connecting to a single user.

This line must be described in the electronic survey data file.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TV PEDESTAL CODE 630

The “tv pedestal” code is used for a point that represents the center of a tv pedestal.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TV MANHOLE TOP CODE 631

The “tv manhole top” code is used for a point that represents the top center of a single tv manhole.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the manhole is made of.

IE: STEEL, CONCRETE, BRICK

SIZE The length and width and/or diameter of the manhole. Measured as a decimal of the project working units.

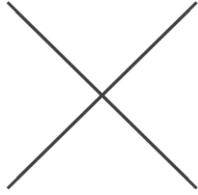
IE: 2.0 X 4.0, 1.5 X 3.5 , 3.0, 3.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TV MANHOLE BOTTOM INVERT SHOT CODE 632

The “tv manhole bottom invert shot” code is used for a point that represents the location of the bottom of a tv manhole.

This point will be utilized to determine the invert elevation of the tv manhole.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TV UTILITY MARKER CODE 633

The “tv utility marker” code is used for a point that represents the center of a tv utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX COMMUNICATIONS

INFO Any additional information.

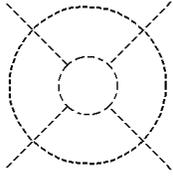
IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TV TEST HOLE CODE 634

The “tv test hole” code is used for a point that represents the top center of a tv test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX COMMUNICATIONS

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

NO.LINE The number of lines

IE: 2, 3, 4, 5

INFO1 Any additional information.

IE: HOLE NO. 175

INFO2 Any additional information.

IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

--TVFO-- -- --TVFO-- -- --TVFO-- -- --TVFO-- -- --

UNDERGROUND TV FIBER OPTIC LINE CODES 635 THROUGH 638

The “underground tv fiber optic line” code is used for a line that represents the location of an underground tv fiber optic line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

--TVFO-- -- --TVFO-- -- --TVFO-- -- --TVFO-- -- --

UNDERGROUND TV FIBER OPTIC LINE CODES 635 THROUGH 638 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

—TVFO—TVFO—TVFO—TVFO—

ABOVEGROUND TV FIBER OPTIC LINE CODES 640 THROUGH 643

The “aboveground tv fiber optic line” code is used for a line that represents the location of an aboveground tv fiber optic line.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

— —TVFO— — — —OFT— — — —TVFO— — — —OFT— —

MULTIPLE UNDERGROUND TV FIBER OPTIC LINE CODES 645 AND 646

The “multiple underground tv fiber optic line” code is used for a line that represents the location of multiple underground tv fiber optic lines in a single location.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

NO.LINE The number of lines.

IE: 2, 3, 4, 5

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

— —TVFO— — — —OJVL— — — —TVFO— — — —OJVL— —

MULTIPLE UNDERGROUND TV FIBER OPTIC LINE CODES 645 AND 646 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MULTIPLE ABOVEGROUND TV FIBER OPTIC LINE CODES 648 AND 649

The “multiple aboveground tv fiber optic line” code is used for a line that represents the location of multiple aboveground tv fiber optic lines in a single location.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: TCI, GULF ATLANTIC, HOME CABLE, COX

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

NO.LINE The number of lines.

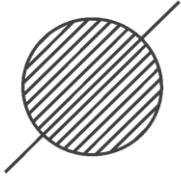
IE: 2, 3, 4, 5

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



POWER POLE CODE 650

The “power pole” code is used for a point that represents the centerpoint of a power pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the power pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.5, 2.0

MATRL The material that the power pole is made of.

IE: WOOD, METAL

OWNER The owner of the power pole.

IE: DEMCO, ENTERGY, GSU

LIGHT Is there a light on the pole?

IE: YES, NO

TRANS Is there a transformer on the pole?

IE: YES, NO

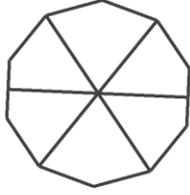
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the power pole



POWER POLE DEADMAN CODE 651

The “power pole deadman” code is used for a point that represents the centerpoint of a power pole deadman.

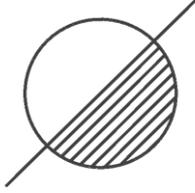
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to use a “jpt” control code to join the deadman to the pole it supports.



COMBINATION POLE CODE 652

The “combination pole” code is used for a point that represents the centerpoint of a utility pole that carries the lines of two or more utility companies..

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the combination pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.5, 2.0

MATRL The material that the combination pole is made of.

IE: WOOD, METAL

OWNER The owner of the combination pole.

IE: DEMCO, ENTERGY, GSU

LIGHT Is there a light on the pole?

IE: YES, NO

TRANS Is there a transformer on the pole?

IE: YES, NO

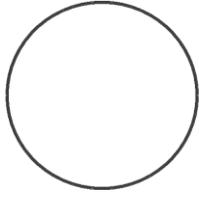
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the combination pole



GUY POLE CODE 653

The “guy pole” code is used for a point that represents the centerpoint of a guy pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the guy pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.5, 2.0

MATRL The material that the guy pole is made of.

IE: WOOD, METAL

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to use a “jpt” control code to join the guy pole to the pole it supports.



POWER JUNCTION BOX CODE 654

The “power junction box” code is used for a point that represents the center of a power junction box.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



POWER VAULT CODE 655

The “power vault” code is used for a point that represents the center of a power vault.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the power vault. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

MATRL The material that the power vault is made of.

IE: STEEL, CONCRETE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



POWER TRANSFORMER CODE 656

The “power transformer” code is used for a point that represents the center of a power transformer.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the power transformer. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

POWER TRANSMISSION TOWER

CODE 657

The “power transmission tower” code is used for a line that represents the centerline of a row of power poles that make up a power transmission tower and/or represents the outline of the support legs of a complex power transmission tower.

This code can be used as a line or a closed figure.

In the event of a complex power transmission tower, it may be necessary to make a sketch of the tower in a conventional field book.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the tower made of.

IE: WOOD, STEEL

NO.LEGS The number of support legs in the tower.

IE: 6, 8, 9

OWNER The owner of the tower.

IE: DEMCO, ENTERGY, GSU

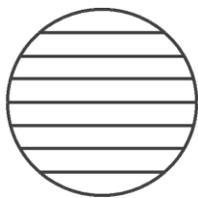
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerline of the row of support legs.



POWER DROP CODE 658

The “power drop” code is used for a point that represents the center of a power drop.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ELECTRIC UTILITY MARKER CODE 659

The “electric utility marker” code is used for a point that represents the center of an electric utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: DEMCO, ENTERGY, GSU

INFO Any additional information.

IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND POWER LINE CODES 660 THROUGH 667

The “underground power line” code is used for a line that represents the location of an underground power line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: DEMCO, ENTERGY, GSU

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

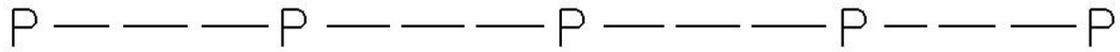
ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.



UNDERGROUND POWER LINE CODES 660 THROUGH 667 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND POWER LINE CODES 670 THROUGH 673

The “aboveground power line” code is used for a line that represents the location of an aboveground power line.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: DEMCO, ENTERGY, GSU

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND POWER SINGLE SERVICE CODES 680 AND 681

The “underground power single service” code is used for a line that represents the location of an underground power service line connecting to a single user.

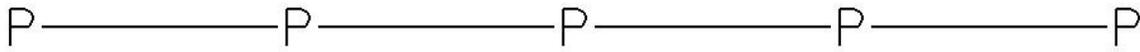
All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND POWER SINGLE SERVICE CODES 685 AND 686

The “aboveground power single service” code is used for a line that represents the location of an aboveground power service line connecting to a single user.

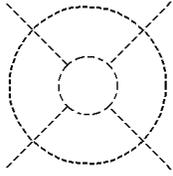
This line must be described in the electronic survey data file.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



POWER TEST HOLE CODE 687

The “power test hole” code is used for a point that represents the top center of a power test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: DEMCO, ENTERGY, GSU

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

NO.LINE The number of lines

IE: 2, 3, 4, 5

INFO1 Any additional information.

IE: HOLE NO. 175

INFO2 Any additional information.

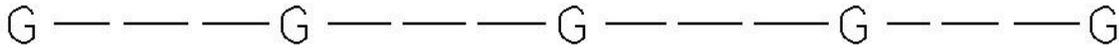
IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND GAS LINE CODES 700 THROUGH 707

The “underground gas line” code is used for a line that represents the location of an underground gas line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the gas line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the gas line is made of.

IE: STEEL, COPPER

OWNER The owner of the gas line.

IE: DEMCO, ENTERGY, GSU

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

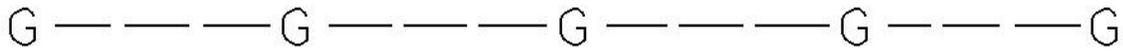
ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.



UNDERGROUND GAS LINE CODES 700 THROUGH 707 (continued)

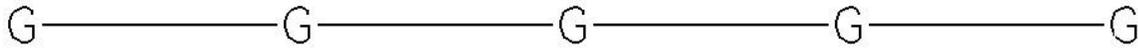
Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND GAS LINE CODES 710 THROUGH 713

The “aboveground gas line” code is used for a line that represents the location of an aboveground gas line.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the gas line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the gas line is made of.

IE: STEEL, COPPER

OWNER The owner of the gas line.

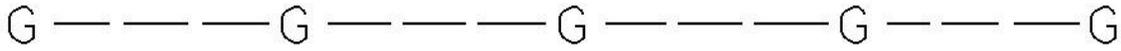
IE: DEMCO, ENTERGY, GSU

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND GAS SINGLE SERVICE CODES 715 AND 716

The “underground gas single service” code is used for a line that represents the location of an underground gas service line connecting to a single user.

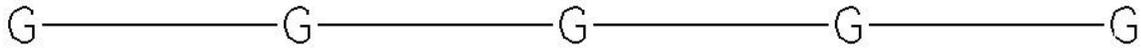
All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND GAS SINGLE SERVICE CODES 718 AND 719

The “aboveground gas single service” code is used for a line that represents the location of an aboveground gas service line connecting to a single user.

This line must be described in the electronic survey data file.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

UNDERGROUND GAS LINE CASING

CODES 720 THROUGH 723

The “underground gas line casing” code is used for a line that represents the location of an underground gas line casing.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the gas line casing. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the gas line casing is made of.

IE: STEEL, COPPER, IRON

OWNER The owner of the gas line casing.

IE: DEMCO, ENTERGY, GSU

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIABLES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

UNDERGROUND GAS LINE CASING CODES 720 THROUGH 723 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a gas line is passing through a gas line casing, dual codes should be utilized to draw the gas line going through the casing.

ABOVEGROUND GAS LINE CASING CODES 725 THROUGH 728

The “aboveground gas line casing” code is used for a line that represents the location of an aboveground gas line casing.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the gas line casing. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the gas line casing is made of.

IE: STEEL, COPPER, IRON

OWNER The owner of the gas line casing.

IE: DEMCO, ENTERGY, GSU

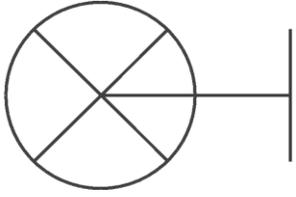
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a gas line is passing through a gas line casing, dual codes should be utilized to draw the gas line going through the casing.



GAS VALVE CODE 730

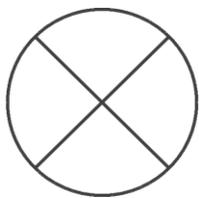
The “gas valve” code is used for a point that represents the center of a gas valve.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS METER CODE 731

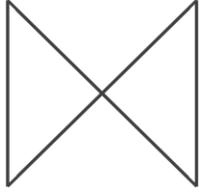
The “gas meter” code is used for a point that represents the center of a gas meter.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS SERVICE NO METER CODE 732

The “gas service no meter” code is used for a point that represents the center of a gas service where there is no gas meter.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS REGULATOR CODE 733

The “gas regulator” code is used for a point that represents the center of a gas regulator.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS RISER CODE 734

The “gas riser” code is used for a point that represents the center of a gas riser.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS TEST BOX CODE 735

The “gas test box” code is used for a point that represents the center of a gas test box.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS VENT CODE 736

The “gas vent” code is used for a point that represents the center of a gas vent.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS WELL CODE 737

The “gas well” code is used for a point that represents the center of the casing of a gas well.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the gas well.

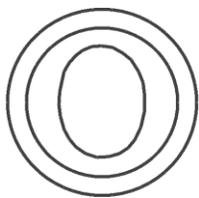
IE: EXXON, SHELL, AMACO

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



OIL WELL CODE 738

The “oil well” code is used for a point that represents the center of the casing of a oil well.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the oil well.

IE: EXXON, SHELL, AMACO

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS UTILITY MARKER CODE 739

The “gas utility marker” code is used for a point that represents the center of a gas utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: DEMCO, ENTERGY, GSU

INFO Any additional information.

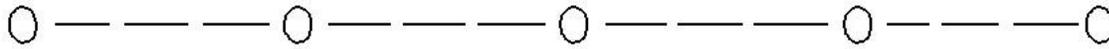
IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND PIPELINE CODES 740 THROUGH 745

The “underground pipeline” code is used for a line that represents the location of an underground pipeline.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the pipeline. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.0, 2.0

MATRL The material that the pipeline is made of.

IE: STEEL, CONCRETE/STEEL

OWNER The owner of the pipeline.

IE: EXXON, SHELL, AMACO

PRODUCT The product transported in the pipeline.

IE: NATURAL GAS, OIL

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

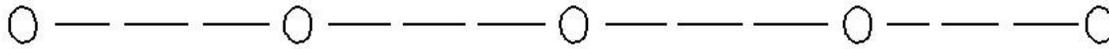
ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.



UNDERGROUND PIPELINE CODES 740 THROUGH 745 (continued)

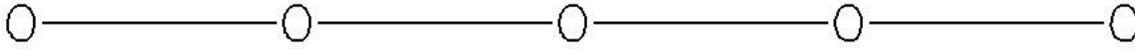
Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND PIPELINE CODES 750 THROUGH 753

The “aboveground pipeline” code is used for a line that represents the location of an aboveground pipeline.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the pipeline. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.0, 2.0

MATRL The material that the pipeline is made of.

IE: STEEL, CONCRETE/STEEL

OWNER The owner of the pipeline.

IE: EXXON, SHELL, AMACO

PRODUCT The product transported in the pipeline.

IE: NATURAL GAS, OIL

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

UNDERGROUND PIPELINE CASING CODES 760 THROUGH 763

The “underground pipeline casing” code is used for a line that represents the location of an underground pipeline casing.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the pipeline casing. Measured as a decimal of the project working units.

IE: 0.75, 1.0, 1.5, 2.0

MATRL The material that the pipeline casing is made of.

IE: STEEL, IRON

OWNER The owner of the pipeline casing.

IE: EXXON, SHELL, AMACO

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

UNDERGROUND PIPELINE CASING CODES 760 THROUGH 763 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a pipeline is passing through a pipeline casing, dual codes should be utilized to draw the pipeline going through the casing.

ABOVEGROUND PIPELINE CASING CODES 765 THROUGH 768

The “aboveground pipeline casing” code is used for a line that represents the location of an aboveground pipeline casing.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the pipeline casing. Measured as a decimal of the project working units.

IE: 0.75, 1.0, 1.5, 2.0

MATRL The material that the pipeline casing is made of.

IE: STEEL, IRON

OWNER The owner of the pipeline casing.

IE: EXXON, SHELL, AMACO

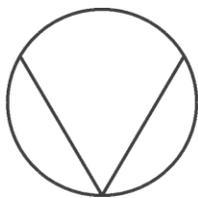
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a pipeline is passing through a pipeline casing, dual codes should be utilized to draw the pipeline going through the casing.



PIPELINE VENT CODE 770

The “pipeline vent” code is used for a point that represents the center of a pipeline vent.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



PIPELINE REGULATOR CODE 771

The “pipeline regulator” code is used for a point that represents the center of a pipeline regulator.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



PIPELINE UTILITY MARKER CODE 772

The “pipeline utility marker” code is used for a point that represents the center of a pipeline utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: EXXON, SHELL, AMACO

INFO Any additional information.

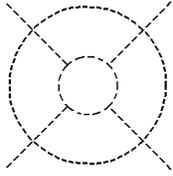
IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



GAS TEST HOLE CODE 773

The “gas test hole” code is used for a point that represents the top center of a gas test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: DEMCO, ENTERGY, GSU

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DIA The diameter of the gas line. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.0, 2.0

MATRL The material that the gas line is made of.

IE: STEEL, PVC

INFO Any additional information.

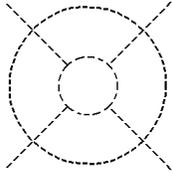
IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



PIPELINE TEST HOLE CODE 774

The “pipeline test hole” code is used for a point that represents the top center of a pipeline test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: DEMCO, ENTERGY, GSU

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DIA The diameter of the pipeline. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.0, 2.0

MATRL The material that the pipeline is made of.

IE: STEEL, PVC

INFO Any additional information.

IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

RAILROAD TRACK RAIL TOP CODES 780 THROUGH 789

The “railroad track rail top” code is used for a line that represents the centerline of the top of a single railroad track rail.

This use of this code is of particular importance at a roadway / railroad grade crossings.

If less detail is required, use railroad track centerline (codes 795 through 799)

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the railroad.

IE: KANSAS CITY SOUTHERN, ILLINOIS CENTRAL

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will require the simultaneous use of two railroad track rail top lines and dtm breaklines (codes 300 through 311) to define the railroad bed.



RAILROAD MILEPOST CODE 790

The “railroad milepost” code is used for a point that represents the center of a railroad milepost.

This point is to be described in the electronic survey data file.

Attributes;

NUMBER The number of the milepost.

IE: 1000, 1500, 2000

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



RAILROAD TRAFFIC SIGNAL CODE 791

The “railroad traffic signal” code is used for a point that represents the center of a railroad traffic signal.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



RAILROAD TRAFFIC SIGNAL CONTROL BOX CODE 792

The “railroad traffic signal control box” code is used for a point that represents the center of a railroad traffic signal control box.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the box. Measured as a decimal of the project working units.

IE: 0.25 X 0.25, 0.5 X 0.5, 1.0 X 1.0

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



RAILROAD SWITCH CODE 793

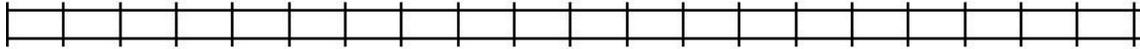
The “railroad switch” code is used for a point that represents the center of a railroad switch.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



RAILROAD TRACK CENTERLINE CODES 795 THROUGH 799

The “railroad track centerline” code is used for a line that represents the centerline of a single railroad track.

If more detail is required, use railroad track rail top (codes 780 through 789)

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the railroad.

IE: KANSAS CITY SOUTHERN, ILLINOIS CENTRAL

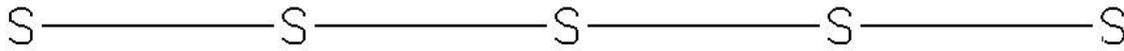
DTM;

This line will be used as a dtm breakline of the surface.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will require the simultaneous use of the railroad track centerline code and dtm breaklines (codes 300 through 311) to define the railroad bed.



SEWER LINE INVERT CODES 800 THROUGH 807

The “sewer line invert” code is used for a line that represents the centerline of a sewer line at it’s invert.

This line must be described in the electronic survey data file.

Attributes;

SIZE The diameter of the sewer line. Measured as a decimal of the project working units.

IE: 0.3, 0.5, 0.8

MATRL The material that the sewer line is made of.

IE: CLAY, PVC, IRON

OWNER The owner of the sewer line.

IE: CITY, PARISH, PRIVATE

DTM; see note below.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

Sewer line inverts should be located at each sewer manhole. It will be necessary to remove the lid of the sewer manhole to locate the sewer line’s invert. The sewer manhole top (code 820) and sewer manhole bottom invert shot (code 821) will each require an observation due to the difference in elevation of the manhole top, the manhole bottom and the sewer line invert.

NOTE; New codes numbered between 8000 and 8233, round sewer line invert (sized), have been created to use in place of codes 800 through 807.

Codes 800 through 807 remain in the feature code library so that old survey data using these codes will still work with added functionality. These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as an arrow head pointer whose point is located at the invert of the pipe.

SFM——SFM——SFM——SFM——

SEWER FORCE MAIN TOP CODES 810 THROUGH 815

The “sewer force main top” code is used for a line that represents the location of the top of a sewer force main.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the force main. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.0, 2.0

MATRL The material that the force main is made of.

IE: PVC, STEEL, IRON

OWNER The owner of the force main.

IE: CITY, PARISH, PRIVATE

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

SFM——SFM——SFM——SFM——

SEWER FORCE MAIN TOP CODES 810 THROUGH 815 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER MANHOLE TOP CODE 820

The “sewer manhole top” code is used for a point that represents the top center of a single sewer manhole.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the manhole is made of.

IE: STEEL, CONCRETE, BRICK

SIZE The length and width and/or diameter of the manhole. Measured as a decimal of the project working units.

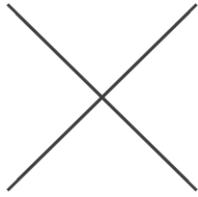
IE: 2.0 X 4.0, 1.5 X 3.5 , 3.0, 3.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER MANHOLE BOTTOM INVERT SHOT CODE 821

The “sewer manhole bottom invert shot” code is used for a point that represents the location of the bottom of a sewer manhole.

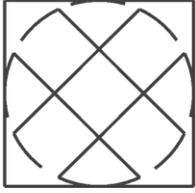
This point will be utilized to determine the invert elevation of the sewer manhole.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER CLEANOUT CODE 822

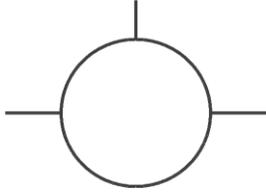
The “sewer cleanout” code is used for a point that represents the center of a single sewer cleanout.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER BLOW OUT VALVE CODE 823

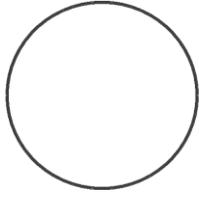
The “sewer blow out valve” code is used for a point that represents the center of a single sewer blow out valve.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER SEPTIC TANK CODE 824

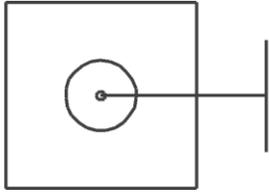
The “sewer septic tank” code is used for a point that represents the center of a single sewer septic tank.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER PUMP CODE 825

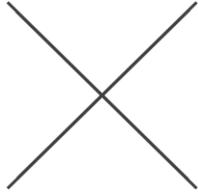
The “sewer pump” code is used for a point that represents the center of a single sewer pump.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER LINE INVERT SHOT CODE 826

The “sewer line invert shot” code is used for a point that represents the location of the invert of one end of a sewer line where the other end of the line falls outside the limits of the survey.

This point must be described in the electronic survey data file.

Attributes;

DIA The diameter of the pipe. Measured as a decimal of the project working units.

IE: 1.5, 2.0, 2.5, 3.0

MATRL The material that the pipe is made of.

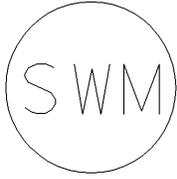
IE: PVC, CLAY, IRON

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER UTILITY MARKER CODE 827

The “sewer utility marker” code is used for a point that represents the center of a sewer utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: CITY, PARISH, PRIVATE

INFO Any additional information.

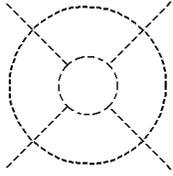
IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER TEST HOLE CODE 828

The “sewer test hole” code is used for a point that represents the top center of a sewer test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: CITY, PARISH, PRIVATE

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DIA The diameter of the sewer line. Measured as a decimal of the project working units.

IE: 0.50, 0.75, 1.0, 2.0

MATRL The material that the sewer line is made of.

IE: PVC, CLAY, CONCRETE

INFO Any additional information.

IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER LIFT STATION (POINT) CODE 830

The “sewer lift station (point)” code is used for a point that represents the top center of a single sewer lift station.

This code is to be used to locate a single sewer lift station with only one observation.

If more detail is required, use code 831 “sewer lift station (closed)”.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SEWER LIFT STATION (CLOSED) CODE 831

The “sewer lift station (closed)” code is used for a line that represents the outline of a sewer lift station.

The use of this code will typically result in a closed figure.

If less detail is required, use code 830 “sewer lift station (point)”.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SEWER TREATMENT PLANT (POINT) CODE 835

The “sewer treatment plant (point)” code is used for a point that represents the top center of a single sewer treatment plant

This code is to be used to locate a single sewer treatment plant with only one observation.

If more detail is required, use code 836 “sewer treatment plant (closed)”.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

SEWER TREATMENT PLANT (CLOSED) CODE 836

The “sewer treatment plant (closed)” code is used for a line that represents the outline of a sewer treatment plant.

The use of this code will typically result in a closed figure.

If less detail is required, use code 835 “sewer treatment plant (point)”.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

— —TRP— — — —TRP— — — —TRP— — — —TRP— — — —TRP—

UNDERGROUND TRAFFIC SIGNAL POWER CODES 837 AND 838

The “underground traffic signal power” code is used for a line that represents the location of an underground traffic signal power line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: DOTD, CITY, PARISH, DEMCO, ENTERGY, CLECO

SIZE The size of the traffic signal power line.

IE: 25 PAIR, 100 PAIR

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

— —TRP— — — —TRP— — — —TRP— — — —TRP— — — —TRP—

UNDERGROUND TRAFFIC SIGNAL POWER CODES 837 AND 838 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

—TRP—TRP—TRP—TRP—TRP—

ABOVEGROUND TRAFFIC SIGNAL POWER CODES 839 AND 840

The “aboveground traffic signal power” code is used for a line that represents the location of an aboveground traffic signal power line.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: DOTD, CITY, PARISH, DEMCO, ENTERGY, GSU

SIZE The size of the traffic signal power line.

IE: 25 PAIR, 100 PAIR

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

--IC-- -- --IC-- -- --IC-- -- --IC-- -- --IC-- --

UNDERGROUND TRAFFIC INTERCONNECT LINE CODE 841

The “underground traffic interconnect line” code is used for a line that represents the location of an underground traffic interconnect line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

OWNER The owner of the line.

IE: DOTD, CITY, PARISH, PRIVATE

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

--IC-- --IC-- --IC-- --IC-- --IC--

UNDERGROUND TRAFFIC INTERCONNECT LINE CODE 841 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND TRAFFIC LOOP DETECTOR LINE CODE 842

The “underground traffic loop detector line” code is used for a line that represents the location of an underground traffic loop connector line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

SIZE The size of the line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

OWNER The owner of the line.

IE: DOTD, CITY, PARISH, PRIVATE

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

--LD--LD--LD--LD--LD--

UNDERGROUND TRAFFIC LOOP DETECTOR LINE CODE 842 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

— —TRFO— — — —TRFO— — — —TRFO— — — —TRFO— —

UNDERGROUND TRAFFIC FIBER OPTIC LINE CODES 843 AND 844

The “underground traffic fiber optic line” code is used for a line that represents the location of an underground traffic fiber optic line

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the traffic fiber optic line.

IE: DOTD, CITY, PARISH

SIZE The size of the traffic fiber optic line.

IE: 25 PAIR, 100 PAIR

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

— —TRFO— — — —TRFO— — — —TRFO— — — —TRFO— —

UNDERGROUND TRAFFIC FIBER OPTIC LINE CODES 843 AND 844 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

—TRFO—TRFO—TRFO—TRFO—TRFO—

ABOVEGROUND TRAFFIC FIBER OPTIC LINE CODES 845 AND 846

The “aboveground traffic fiber optic line” code is used for a line that represents the location of an aboveground traffic fiber optic line

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the traffic fiber optic line.

IE: DOTD, CITY, PARISH

SIZE The size of the traffic fiber optic line.

IE: 25 PAIR, 100 PAIR

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

DYNAMIC MESSAGE SIGN CODE 847

The “dynamic message sign” code is used for a line that represents the outline of a single dynamic message sign.

The use of this code will typically result in a 4 sided closed figure .

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the dynamic message sign is made of.

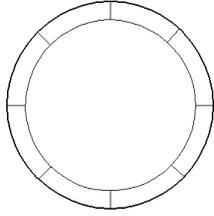
IE: STEEL, ALUMINUM

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



DYNAMIC MESSAGE SIGN SUPPORT CODE 848

The “dynamic message sign support” code is used for a point that represents the centerpoint of a dynamic message sign support.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the dynamic message sign support. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 2.0 X 4.0, 3.0 X 6.0

MATRL The material that the dynamic message sign support is made of.

IE: METAL, ALUMINUM

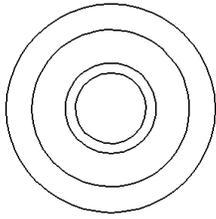
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the dynamic message sign support.



MISCELLANEOUS TRAFFIC POLE CODE 849

The “misc traffic pole” code is used for a point that represents the centerpoint of a misc traffic pole.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the misc traffic pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0,

MATRL The material that the misc traffic pole is made of.

IE: WOOD, METAL

USE Describe what the misc traffic pole is used for.

IE: ANTENNA MOUNT, TRAFFIC DETECTOR, TRAFFIC COUNTER, HIGH MAST LIGHT

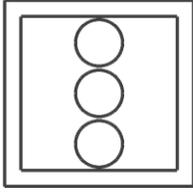
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the misc traffic pole.



TRAFFIC SIGNAL STANDARD CODE 850

The “traffic signal standard” code is used for a point that represents the centerpoint of a traffic signal standard that has the traffic signal attached directly to it.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the traffic signal pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0,

MATRL The material that the traffic signal pole is made of.

IE: WOOD, METAL

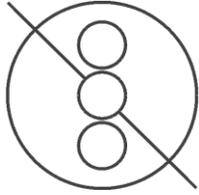
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the traffic signal pole



CABLE SUSPENDED TRAFFIC SIGNAL POLE CODE 851

The “cable suspended traffic signal pole” code is used for a point that represents the centerpoint of a traffic signal pole that has the traffic signal suspended over the roadway by a cable.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the traffic signal pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0,

MATRL The material that the traffic signal pole is made of.

IE: WOOD, METAL

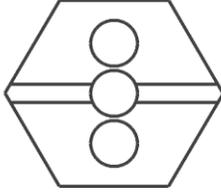
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the traffic signal pole



CANTILEVERED TRAFFIC SIGNAL POLE CODE 852

The “cantilevered traffic signal pole” code is used for a point that represents the centerpoint of a traffic signal pole with the traffic signal suspended over the roadway by cantilever.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the traffic signal pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0,

MATRL The material that the traffic signal pole is made of.

IE: WOOD, METAL

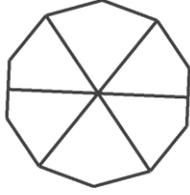
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the traffic signal pole



TRAFFIC SIGNAL DEADMAN CODE 853

The “traffic signal deadman” code is used for a point that represents the centerpoint of a traffic signal deadman.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to use a “jpt” control code to join the deadman to the pole it supports.



TRAFFIC SIGNAL POWER VAULT CODE 854

The “traffic signal power vault” code is used for a point that represents the center of a traffic signal power vault.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the power vault. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

MATRL The material that the power vault is made of.

IE: STEEL, CONCRETE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TRAFFIC SIGNAL CONTROL BOX CODE 855

The “traffic signal control box” code is used for a point that represents the center of a traffic signal control box.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the control box. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TRAFFIC COUNTER CODE 856

The “traffic counter” code is used for a point that represents the center of a single traffic counter.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TRAFFIC SIGN CODE 857

The “traffic sign” code is used for a point that represents the center of a single traffic sign.

This line is to be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: STOP, YIELD, ROAD NAME

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



FEDERAL AID MARKER CODE 858

The “federal aid marker” code is used for a point that represents the center of a federal aid marker.

This point is to be described in the electronic survey data file.

Attributes;

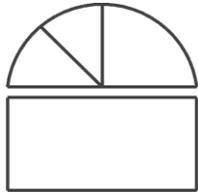
NUMBER The number of the federal aid marker.
IE: 1000, 1500, 2000

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



PARKING METER CODE 859

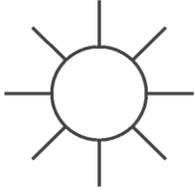
The “parking meter” code is used for a point that represents the center of a single parking meter.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



LIGHT STANDARD CODE 860

The “light standard” code is used for a point that represents the centerpoint of a light standard pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the light standard pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0,

MATRL The material that the light standard pole is made of.

IE: WOOD, METAL, ALUMINUM

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the light standard pole.



LIGHT STANDARD POWER VAULT CODE 861

The “light standard power vault” code is used for a point that represents the center of a light standard power vault.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the light standard power vault. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

MATRL The material that the light standard power vault is made of.

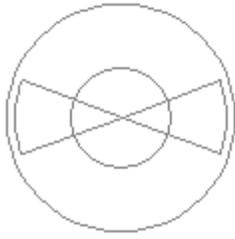
IE: STEEL, CONCRETE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TRAFFIC CAMERA POLE CODE 862

The “traffic camera pole” code is used for a point that represents the centerpoint of a traffic camera pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the traffic camera pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0,

MATRL The material that the traffic camera pole is made of.

IE: WOOD, METAL

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the traffic camera pole



TRAFFIC CAMERA CONTROL BOX CODE 863

The “traffic camera control box” code is used for a point that represents the centerpoint of a traffic camera control box.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The size of the traffic camera control box. Measured as a decimal of the project working units.

IE: 1x2, 2.5x2.5

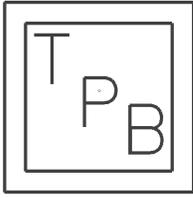
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It may be necessary to utilize the offset observation function of the total station to locate the true center point of the traffic camera control box.



TRAFFIC PULL BOX CODE 864

The “traffic pull box” code is used for a point that represents the center of a traffic pull box.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the pull box. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

MATRL The material that the pull box is made of.

IE: STEEL, CONCRETE, PLASTIC

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

TRAFFIC OVERHEAD SIGN TRUSS CODE 865

The “traffic overhead sign truss” code is used for a line that represents the outline of a single overhead sign truss.

The use of this code will typically result in a 4 sided closed figure .

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the sign truss is made of.

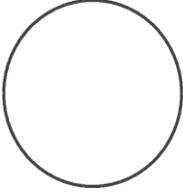
IE: STEEL, ALUMINUM

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TRAFFIC OVERHEAD SIGN TRUSS SUPPORT CODE 866

The “traffic overhead sign truss support” code is used for a point that represents the center of a single overhead sign truss support.

This line is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the sign truss support. Measured as a decimal of the project working units.

IE: 1.0, 1.5, 2.0, 2.5

MATRL The material that the sign truss support is made of.

IE: STEEL, ALUMINUM

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the sign truss support.

TCL — — — — TCL — — — — TCL — — — — TCL — —

UNDERGROUND TRAFFIC CAMERA LINE CODES 867 AND 868

The “underground traffic camera line” code is used for a line that represents the location of an underground traffic camera line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the utility.

IE: LADOTD, CITY OF BATON ROUGE, FBI, CIA

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

TCL—————TCL—————TCL—————TCL—————

ABOVEGROUND TRAFFIC CAMERA LINE CODE 869

The “aboveground traffic camera line” code is used for a line that represents the location of an aboveground traffic camera line.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

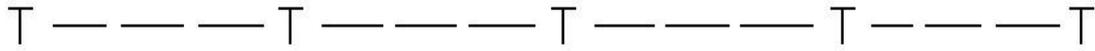
IE: LADOTD, CITY OF BATON ROUGE, FBI, CIA

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND TELEPHONE LINE CODES 870 THROUGH 877

The “underground telephone line” code is used for a line that represents the location of an underground telephone line

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the telephone line.

IE: BELL SOUTH, EATEL

SIZE The size of the telephone line.

IE: 25 PAIR, 100 PAIR

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

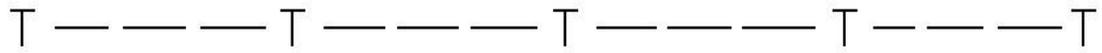
ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.



UNDERGROUND TELEPHONE LINE CODES 870 THROUGH 877 (continued)

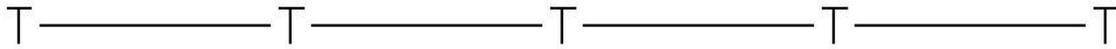
Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND TELEPHONE LINE CODES 880 THROUGH 883

The “aboveground telephone line” code is used for a line that represents the location of an aboveground telephone line

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the telephone line.

IE: BELL SOUTH, EATEL

SIZE The size of the telephone line.

IE: 25 PAIR, 100 PAIR

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

UNDERGROUND TELEPHONE LINE CASING CODES 885 and 886

The “underground telephone line casing” code is used for a line that represents the location of an underground telephone line casing.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the telephone line casing. Measured as a decimal of the project working units.

IE: 0.75, 1.0, 1.5, 2.0

MATRL The material that the telephone line casing is made of.

IE: STEEL, IRON

OWNER The owner of the telephone line casing.

IE: BELL SOUTH, CENTURY TELEPHONE CO.

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

UNDERGROUND TELEPHONE LINE CASING CODES 885 and 886 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a telephone line is passing through a telephone line casing, dual codes should be utilized to draw the telephone line going through the casing.

ABOVEGROUND TELEPHONE LINE CASING CODES 887 & 888

The “aboveground telephone line casing” code is used for a line that represents the location of an aboveground telephone line casing.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the telephone line casing. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the telephone line casing is made of.

IE: STEEL, COPPER, IRON

OWNER The owner of the telephone line casing.

IE: BELLSOUTH, CENTURY TELEPHONE CO.

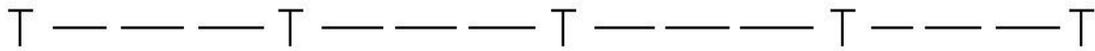
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a telephone line is passing through a telephone line casing, dual codes should be utilized to draw the telephone line going through the casing.



UNDERGROUND TELE SINGLE SERVICE CODES 890 AND 891

The “underground tele single service” code is used for a line that represents the location of an underground telephone service line connecting to a single user.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND TELE SINGLE SERVICE CODES 895 AND 896

The “aboveground tele single service” code is used for a line that represents the location of an aboveground telephone service line connecting to a single user.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE BOOTH CODE 900

The “telephone booth” code is used for a point that represents the center of a telephone booth.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE CROSS CONNECT BOX CODE 901

The “telephone cross connect box” code is used for a point that represents the center of a telephone cross connect box.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the telephone cross connect box. Measured as a decimal of the project working units.

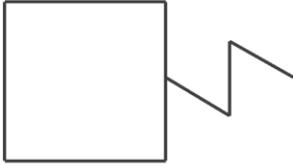
IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE PEDESTAL CODE 902

The “telephone pedestal” code is used for a point that represents the center of a telephone pedestal.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE MANHOLE TOP CODE 903

The “telephone manhole top” code is used for a point that represents the top center of a single telephone manhole.

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the manhole is made of.

IE: STEEL, CONCRETE, BRICK

SIZE The length and width and/or diameter of the manhole. Measured as a decimal of the project working units.

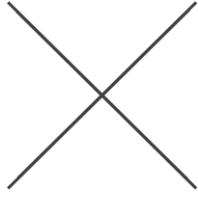
IE: 2.0 X 4.0, 1.5 X 3.5 , 3.0, 3.5

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE MANHOLE BOTTOM INVERT SHOT CODE 904

The “telephone manhole bottom invert shot” code is used for a point that represents the location of the bottom of a telephone manhole.

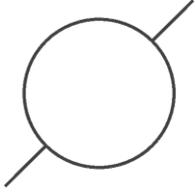
This point will be utilized to determine the invert elevation of the telephone manhole.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE POLE CODE 905

The “telephone pole” code is used for a point that represents the centerpoint of a telephone pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the telephone pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.5, 2.0

MATRL The material that the telephone pole is made of.

IE: WOOD, METAL

OWNER The owner of the telephone pole.

IE: BELL SOUTH, EATEL

LIGHT Is there a light on the telephone pole?

IE: YES, NO

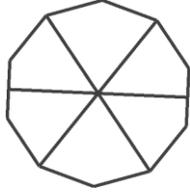
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the telephone pole



TELEPHONE POLE DEADMAN CODE 906

The “telephone pole deadman” code is used for a point that represents the centerpoint of a telephone pole deadman.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to use a “jpt” control code to join the deadman to the pole it supports.



TELEPHONE PRESSURE BOX CODE 907

The “telephone pressure box” code is used for a point that represents the center of a telephone pressure box.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE UTILITY MARKER CODE 908

The “telephone utility marker” code is used for a point that represents the center of a telephone utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: BELL SOUTH, EATEL

INFO Any additional information.

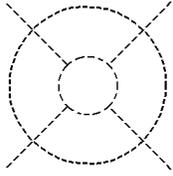
IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



TELEPHONE TEST HOLE CODE 909

The “telephone test hole” code is used for a point that represents the top center of a telephone test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: BELL SOUTH, EATEL, AT&T

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

SIZE The size of the telephone line

IE: 25 PAIR, 100 PAIR

NO.LINE The number of lines

IE: 2, 3, 4, 5

INFO Any additional information.

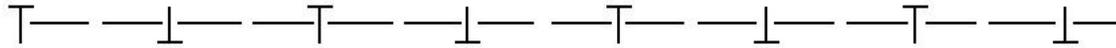
IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MULTIPLE UNDERGROUND TELEPHONE LINES CODES 910 THROUGH 917

The “multiple underground telephone line” code is used for a line that represents the location of multiple underground telephone line

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the telephone line.

IE: BELL SOUTH, EATEL

SIZE The size of the telephone line.

IE: 25 PAIR, 100 PAIR

NO.LINE The number of lines

IE: 2, 3, 4, 5

CONDUIT Are the lines in a conduit?

IE: YES, NO

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

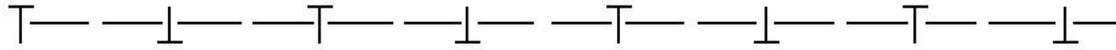
ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.



MULTIPLE UNDERGROUND TELEPHONE LINES CODES 910 THROUGH 917 (continued)

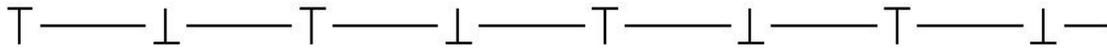
Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MULTIPLE ABOVEGROUND TELEPHONE LINES CODES 920 THROUGH 923

The “multiple aboveground telephone line” code is used for a line that represents the location of multiple aboveground telephone lines.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the telephone line.

IE: BELL SOUTH, EATEL

SIZE The size of the telephone line.

IE: 25 PAIR, 100 PAIR

NO.LINE The number of lines

IE: 2, 3, 4, 5

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

TFO — — TFO — — TFO — — — TFO — — TFO

UNDERGROUND TELEPHONE FIBER OPTIC LINE CODES 930 THROUGH 937

The “underground telephone fiber optic line” code is used for a line that represents the location of an underground telephone fiber optic line

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the telephone fiber optic line.

IE: BELL SOUTH, EATEL

SIZE The size of the telephone fiber optic line.

IE: 25 PAIR, 100 PAIR

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

TFO — — TFO — — TFO — — TFO — — TFO

UNDERGROUND TELEPHONE FIBER OPTIC LINE CODES 930 THROUGH 937 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

--TFO-- --OJL-- --TFO-- --OJL-- --TFO--

MULTIPLE UNDERGROUND TELEPHONE FIBER OPTIC LINE CODES 938 AND 939

The “multiple underground telephone fiber optic line” code is used for a line that represents the location of multiple underground telephone fiber optic lines in a single location.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

OWNER The owner of the multiple telephone fiber optic lines.

IE: BELL SOUTH, EATEL

SIZE The size of the multiple telephone fiber optic lines.

IE: 25 PAIR, 100 PAIR

NO.LINE The number of lines.

IE: 2, 3, 4, 5

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

--TFO-- --OJL-- --TFO-- --OJL-- --TFO--

MULTIPLE UNDERGROUND TELEPHONE FIBER OPTIC LINE CODES 938 AND 939 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

TFO——TFO——TFO——TFO——

ABOVEGROUND TELEPHONE FIBER OPTIC LINE CODES 940 THROUGH 943

The “aboveground telephone fiber optic line” code is used for a line that represents the location of an aboveground telephone fiber optic line

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the telephone fiber optic line.

IE: BELL SOUTH, EATEL

SIZE The size of the telephone fiber optic line.

IE: 25 PAIR, 100 PAIR

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MULTIPLE ABOVEGROUND TELEPHONE FIBER OPTIC LINE CODES 944 AND 945

The “multiple aboveground telephone fiber optic line” code is used for a line that represents the location of multiple aboveground telephone fiber optic lines in a single location.

This line must be described in the electronic survey data file.

Attributes;

OWNER The owner of the multiple telephone fiber optic lines.

IE: BELL SOUTH, EATEL

SIZE The size of the multiple telephone fiber optic lines.

IE: 25 PAIR, 100 PAIR

NO.LINE The number of lines.

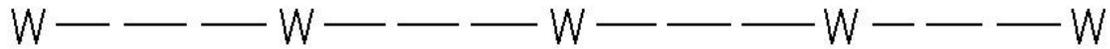
IE: 2, 3, 4, 5

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND WATER LINE CODES 950 THROUGH 957

The “underground water line” code is used for a line that represents the location of an underground water line.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the water line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the water line is made of.

IE: PVC, STEEL, COPPER

OWNER The owner of the water line.

IE: BR WATER CO, PRIVATE

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

W — — — W — — — W — — — W — — — W

UNDERGROUND WATER LINE CODES 950 THROUGH 957 (continued)

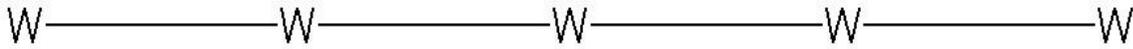
Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND WATER LINE CODES 960 THROUGH 963

The “aboveground water line” code is used for a line that represents the location of an aboveground water line.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the water line. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the water line is made of.

IE: PVC, STEEL, COPPER

OWNER The owner of the water line.

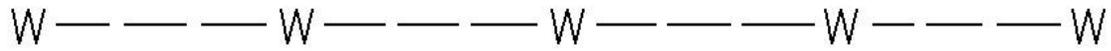
IE: BR WATER CO, PRIVATE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND WATER SINGLE SERVICE CODES 965 AND 966

The “underground water single service” code is used for a line that represents the location of an underground water service line connecting to a single user.

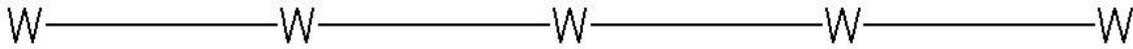
All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND WATER SINGLE SERVICE CODES 970 AND 971

The “aboveground water single service” code is used for a line that represents the location of an aboveground water service line connecting to a single user.

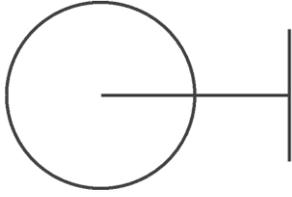
This line must be described in the electronic survey data file.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



WATER VALVE CODE 975

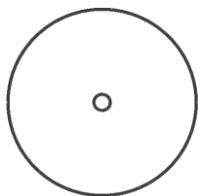
The “water valve” code is used for a point that represents the center of a water valve.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



WATER METER CODE 976

The “water meter” code is used for a point that represents the center of a water meter.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



FIRE HYDRANT CODE 977

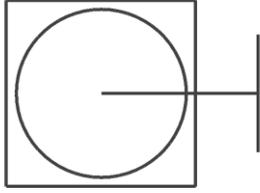
The “fire hydrant” code is used for a point that represents the center of a fire hydrant.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



WATER VALVE VAULT CODE 978

The “water valve vault” code is used for a point that represents the center of a water valve vault.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The length and width of the water valve vault. Measured as a decimal of the project working units.

IE: 0.5 X 0.5, 1.0 X 1.0, 2.0 X 1.5

MATRL The material that the water valve vault is made of.

IE: STEEL, CONCRETE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

WATER TOWER (CLOSED) CODE 979

The “water tower” code is used for a line that represents the outline of the support legs of a water tower.

This use of this code will result in a closed figure.

In the event of a complex water tower, it may be necessary to make a sketch of the tower in a conventional field book.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the tower made of.

IE: WOOD, STEEL

NO.LEGS The number of support legs in the tower.

IE: 6, 8, 9

OWNER The owner of the tower.

IE: BR WATER CO, PARISH, CITY, PRIVATE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerline of the support legs.



WATER CLEANOUT CODE 980

The “water cleanout” code is used for a point that represents the center of a water cleanout.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



WATER WELL CODE 981

The “water well” code is used for a point that represents the center of the casing of a water well.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the water well.

IE: BR WATER CO, PARISH, CITY, PRIVATE

DIA The diameter of the water well casing. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

DEPTH The depth of the water well. This information should be provided by the well owner or representative. Measured as a decimal of the project working units.

IE: 50, 100, 500, 1000

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station should be utilized to locate the center of the well casing.



WATER UTILITY MARKER CODE 982

The “water utility marker” code is used for a point that represents the center of a water utility marker sign or post.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the marker.

IE: BR WATER CO, CITY, WATER DISTRICT 2

INFO Any additional information.

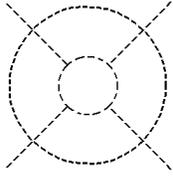
IE: 0.5 PVC POST, METAL SIGN

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



WATER TEST HOLE CODE 983

The “water test hole” code is used for a point that represents the top center of a water test hole.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the utility.

IE: BR WATER CO, PARISH WATER WORKS, CITY, PRIVATE

DEPTH The depth from the ground to the top of utility. This information should be provided by the utility locator. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DIA The diameter of the water line. Measured as a decimal of the project working units.

IE: 0.75, 1.0, 1.5, 2.0

MATRL The material that the water line is made of.

IE: STEEL, IRON, PVC

INFO Any additional information.

IE: LOCATED BY AAA CONSULTANTS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

UNDERGROUND WATER LINE CASING CODES 990 THROUGH 993

The “underground water line casing” code is used for a line that represents the location of an underground water line casing.

All underground utility locations should be marked by the utility owners or representatives. Procedures for obtaining assistance from the utility owners can be found in the current Location and Survey Manual. Underground utility locations should be measured from these markings.

This line must be described in the electronic survey data file.

Attributes; At start of line;

DIA The diameter of the water line casing. Measured as a decimal of the project working units.

IE: 0.75, 1.0, 1.5, 2.0

MATRL The material that the water line casing is made of.

IE: STEEL, IRON

OWNER The owner of the water line casing.

IE: BR WATER CO, PARISH, CITY, PRIVATE

DEPTH The method used to determine the depth of the line and not the depth itself.

A pick list has been created for all of the START code DEPTH prompts and are described as follows;

PROBED* (default value) for depth determined by probe.

ELECTRONIC DEVICE for depth determined by any type of electronic device.

RECORD for depths obtained from the utility records (not actually determined in the field by physical methods).

NO DEPTHS GIVEN for use when no depth is given, for other shots on the line, enter UNKNOWN.

VARIES, SEE DEPTHS for use when the depth is actually measured but by different methods along the line, for other shots on the line, enter the depth at the point and how measured.

OTHER, SEE NOTE for use when none of the above applies, describe in your note what was done, then in final data processing enter such into the attribute fields and then delete the note.

UNDERGROUND WATER LINE CASING CODES 990 THROUGH 993 (continued)

Attributes; At points along the line other than the start;

DEPTH The depth from the ground to the top of the utility. This information should be provided by the utility owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

DTM; This line will not be used as a dtm feature.

Observation requirements; When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a water line is passing through a water line casing, dual codes should be utilized to draw the water line going through the casing.

ABOVEGROUND WATER LINE CASING CODES 995 THROUGH 998

The “aboveground water line casing” code is used for a line that represents the location of an aboveground water line casing.

This line must be described in the electronic survey data file.

Attributes;

DIA The diameter of the water line casing. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

MATRL The material that the water line casing is made of.

IE: STEEL, COPPER, IRON

OWNER The owner of the water line casing.

IE: BR WATER CO, PARISH, CITY, PRIVATE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

In the event a water line is passing through a water line casing, dual codes should be utilized to draw the water line going through the casing.

MULTIPOLE BILLBOARD

CODE 1000

The “multipole billboard” code is used for a line that represents the centerline of the row of poles supporting a multipole billboard.

This line is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the poles. Measured as a decimal of the project working units.

IE: 0.5, 1.0

MATRL The material that the poles are made of.

IE: WOOD, STEEL

NO.POLES The number of poles in the row.

IE: 6, 8, 9

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station should be utilized to locate the true centerline of the row of poles.

MONOPOLE BILLBOARD CODE 1001

The “monopole billboard” code is used for a line that represents the centerline of the overhead billboard structure supported by a single pole.

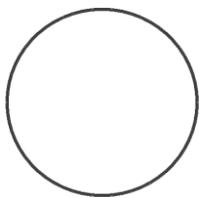
It will require the combined use of this code and "monopole billboard support pole" (code 1002) to define a monopole billboard.

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



BILLBOARD SUPPORT POLE CODE 1002

The “ billboard support pole” code is used for a point that represents the centerpoint of a pole supporting a billboard.

It will require the combined use of this code and "monopole billboard centerline" (code 1001) to define a monopole billboard.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the pole. Measured as a decimal of the project working units.

IE: 1.0, 2.0, 3.0

MATRL The material that the pole is made of.

IE: STEEL

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station should be utilized to locate the true centerpoint of the pole.

SIGN CODE 1005

The “sign” code is used for a line that represents the centerline of a sign structure. The sign may or maynot be supported by a poles.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the sign is made of.

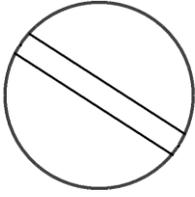
IE: WOOD, METAL, BRICK

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



SIGN POLE CODE 1006

The “sign pole” code is used for a point that represents the centerpoint of a sign pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the pole. Measured as a decimal of the project working units.

IE: 1.0, 2.0, 3.0

MATRL The material that the pole is made of.

IE: STEEL

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerpoint of the pole.

MAILBOX BANK CODE 1010

The “mailbox bank” code is used for a line that represents the outline of a bank of mailboxes.

The use of this code will typically result in a 4 sided closed figure .

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the sign truss is made of.

IE: BRICK, METAL, WOOD,

NO.box The number of mailboxes in the bank.

IE: 5, 10, 15

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



MAILBOX CODE 1011

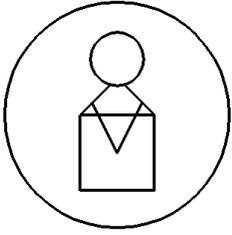
The “mailbox” code is used for a point that represents the centerpoint of a single mailbox.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



HUMAN GRAVE CODE 1015

The “human grave” code is used for a point that represents the centerpoint of a human grave.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

CEMETERY CODE 1016

The “cemetery” code is used for a line that represents the outline of a cemetery.

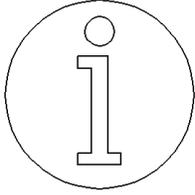
The use of this code will typically result in a closed figure .

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



PLACE TEXT CODE 1020

The “place text” code is used to display descriptive text at a point in the survey data

This point is to be described in the electronic survey data file.

Attributes;

TEXT The text that is to be displayed.

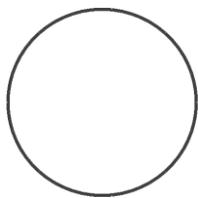
IE: PASTURE, LAWN, CONCRETE, JOHN DOE ET AT

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ABOVEGROUND STORAGE TANK (POINT) CODE 1025

The “aboveground storage tank (point)” code is used for a point that represents the centerpoint of an aboveground storage tank.

This code is to be used to locate a single aboveground storage tank with only one observation.

If more detail is required, use code 1026 “aboveground storage tank (closed)”.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the storage tank. Measured as a decimal of the project working units.

IE: 1.0, 2.0, 5.0

MATRL The material that the storage tank is made of.

IE: STEEL, FIBERGLASS

PRODUCT The product stored in the storage tank.

IE: NATURAL GAS, OIL, GASOLINE, WATER

CAPACITY The storage capacity of the storage tank.

IE: 100 GALLONS, 1000 GALLONS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the storage tank.

ABOVEGROUND STORAGE TANK (CLOSED) CODE 1026

The “aboveground storage tank (closed)” code is used for a line that represents the outline of an aboveground storage tank

The use of this code will result in a closed figure.

If less detail is required, use code 1025 “aboveground storage tank (point)”.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the storage tank is made of.

IE: STEEL, FIBERGLASS

PRODUCT The product stored in the storage tank.

IE: NATURAL GAS, OIL, GASOLINE, WATER

CAPACITY The storage capacity of the storage tank.

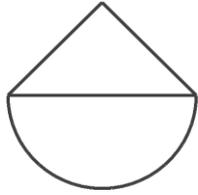
IE: 100 GALLONS, 1000 GALLONS

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



STORAGE TANK VENT CODE 1030

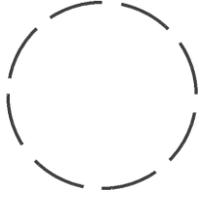
The “storage tank vent” code is used for a point that represents the centerpoint of a storage tank vent.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNDERGROUND STORAGE TANK (POINT) CODE 1035

The “underground storage tank (point)” code is used for a point that represents the centerpoint of an underground storage tank.

This code is to be used to locate a single underground storage tank with only one observation.

If more detail is required, use code 1036 “underground storage tank (closed)”.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the storage tank. Measured as a decimal of the project working units.

IE: 1.0, 2.0, 5.0

MATRL The material that the storage tank is made of.

IE: STEEL, FIBERGLASS

PRODUCT The product stored in the storage tank.

IE: NATURAL GAS, OIL, GASOLINE, WATER

DEPTH The depth of the storage tank. This information should be provided by the tank owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

CAPACITY The storage capacity of the storage tank.

IE: 100 GALLONS, 1000 GALLONS

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

UNDERGROUND STORAGE TANK (CLOSED) CODE 1036

The “underground storage tank (closed)” code is used for a line that represents the outline of an underground storage tank

The use of this code will result in a closed figure.

If less detail is required, use code 1035 “underground storage tank (point)”.

This line is to be described in the electronic survey data file.

Attributes;

MATRL The material that the storage tank is made of.

IE: STEEL, FIBERGLASS

PRODUCT The product stored in the storage tank.

IE: NATURAL GAS, OIL, GASOLINE, WATER

DEPTH The depth of the storage tank. This information should be provided by the tank owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

CAPACITY The storage capacity of the storage tank.

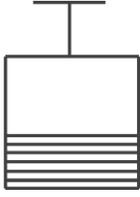
IE: 100 GALLONS, 1000 GALLONS

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



FUEL PUMP CODE 1040

The “fuel pump” code is used for a point that represents the centerpoint of a fuel pump.

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the fuel pump.



MONITORING WELL CODE 1041

The “monitoring well” code is used for a point that represents the center of the casing of a monitoring well.

This point is to be described in the electronic survey data file.

Attributes;

OWNER The owner of the gas well.

IE: EXXON, SHELL, AMACO, EPA, STATE

DIA The diameter of the monitoring well casing. Measured as a decimal of the project working units.

IE: 0.25, 0.50, 0.75, 1.0

DEPTH The depth of the monitoring well. This information should be provided by the well owner or representative. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 1.2, 2.5, 3.0

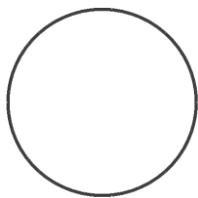
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the monitoring well.



SILO CODE 1042

The “silo” code is used for a point that represents the centerpoint of a silo.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the silo. Measured as a decimal of the project working units.

IE: 5.0, 10.0, 15.0

MATRL The material that the silo is made of.

IE: METAL, CONCRETE

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to utilize the offset observation function of the total station to locate the true center point of the silo.

MISCELLANEOUS TOWER (CLOSED) CODE 1043

The “miscellaneous tower (closed)” code is used for a line that represents the outline of the support legs of a miscellaneous tower .

This use of this code will result in a closed figure.

In the event of a complex tower, it may be necessary to make a sketch of the tower in a conventional field book.

This line is to be described in the electronic survey data file.

Attributes;

TYPE The type of tower.

IE: FIRE, LOOK OUT, TV BROADCAST, RADIO BROADCAST

MATRL The material that the tower made of.

IE: WOOD, STEEL

NO.LEGS The number of support legs in the tower.

IE: 6, 8, 9

OWNER The owner of the tower.

IE: PRIVATE, POLICE, STATE, WBRZ

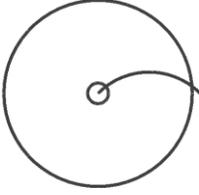
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerline of the support legs.



FLAG POLE CODE 1044

The “flag pole” code is used for a point that represents the centerpoint of a flag pole.

This point is to be described in the electronic survey data file.

Attributes;

DIA The diameter of the pole. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 2.0

MATRL The material that the pole is made of.

IE: STEEL

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerpoint of the pole.



GENERAL / PRIVATE LIGHT CODE 1045

The “general / private light” code is used for a point that represents the centerpoint of a general and/or private light structure.

This point is to be described in the electronic survey data file.

Attributes;

SIZE The diameter and /or size of the light structure. Measured as a decimal of the project working units.

IE: 0.5, 1.0, 2.0

MATRL The material that the light structure is made of.

IE: STEEL

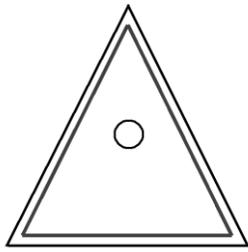
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerpoint of the light structure.



MISCELLANEOUS TOWER (POINT) CODE 1046

The “miscellaneous tower (point)” code is used for a point that represents the bottom of a miscellaneous tower .

This point is to be described in the electronic survey data file.

Attributes;

MATRL The material that the tower made of.

IE: WOOD, STEEL

OWNER The owner of the tower.

IE: PRIVATE, POLICE, STATE, WBRZ, AT&T, CINGULAR, DOTD

TYPE The type of tower.

IE: TV BROADCAST, RADIO BROADCAST, CELLULAR, MICROWAVE, COMBINATION

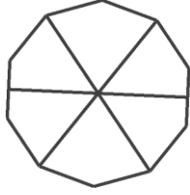
DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

The offset function of the total station may be utilized to locate the true centerline of the support legs.



MISCELLANEOUS TOWER GUY ANCHOR CODE 1047

The “miscellaneous tower guy anchor” code is used for a point that represents the centerpoint of a tower guy anchor.

Attributes;

MATRL The material that the guy anchor is made of.

IE: METAL, CONCRETE

NO.CABLES The number of cables attached.

IE: 1, 2, 3

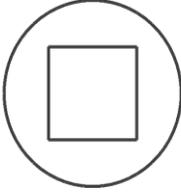
DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

It will be necessary to use a “jpt” control code to join the guy anchor to the tower it supports.



MECHANICAL (POINT) CODE 1050

The “mechanical (point)” code is used for a point that represents the center of a small mechanical device.

A typical example of the use of this code would be to locate the center of an air conditioning unit next to a building or a compressor next to a mechanical shop.

To locate a large mechanical device use mechanical (closed) (code 546).

This point is to be described in the electronic survey data file.

Attributes;

INFO Description of the mechanical device.

IE: AIR CONDITIONER, COMPRESSER, PUMP

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

MECHANICAL (CLOSED) CODE 1051

The “mechanical (closed)” code is used for a line that represents the outline of a large mechanical device.

A typical example of the use of this code would be to locate the outline of an air conditioning cooling tower, a generator, a steam boiler.

To locate a small mechanical device use mechanical (point) (code 545).

This line is to be described in the electronic survey data file.

Attributes;

INFO Description of the mechanical device.

IE: AIR CONDITIONER COOLING TOWER, STEAM BOILER

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

OVERHEAD STRUCTURE (POINT) CODE 1055

The “overhead structure (point)” code is used for a point that represents the center of a single overhead structure.

This point is to be described in the electronic survey data file.

Attributes;

INFO Description of the overhead structure.

IE: COMPRESSER, PUMP, CONVEYOR MOTOR

INFO Any additional information.

IE: ELEVATION IS ACTUAL BOTTOM OF MOTOR

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

Typically the prism pole should be positioned directly below the structure as best as is possible. The elevation of the observation will be the elevation of the ground at that point.

The elevation of the bottom of the structure may be obtained by placing the prism directly on the bottom of the structure and entering a negative target height, but only if the structure can be safely reached with the prism. In this event, the fact that the elevation is actual should be noted in the attributes.

OVERHEAD STRUCTURE (LINE) CODE 1056

The “overhead structure (line)” code is used for a line that represents the outline of an overhead structure.

This point is to be described in the electronic survey data file.

Attributes;

INFO Description of the overhead structure.

IE: CONVEYOR , ELEVATED WALKWAY

INFO Any additional information.

IE: ELEVATION IS ACTUAL BOTTOM OF CONVEYOR

DTM;

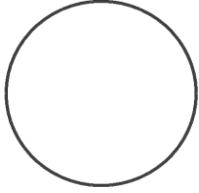
This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

Typically the prism pole should be positioned directly below the structure as best as is possible. The elevation of the observation will be the elevation of the ground at that point.

The elevation of the bottom of the structure may be obtained by placing the prism directly on the bottom of the structure and entering a negative target height, but only if the structure can be safely reached with the prism. In this event, the fact that the elevation is actual should be noted in the attributes.



OVERHEAD STRUCTURE SUPPORT (POINT) CODE 1057

The “overhead structure support (point)” code is used for a point that represents the center of a single overhead structure support.

This point is to be described in the electronic survey data file.

Attributes;

INFO Description of the overhead structure support.

IE: 0.5 METAL PIPE, STEEL I-BEAM

INFO Any additional information.

IE: SUPPORTS CONVEYOR STRUCTURE, SUPPORTS PIPE RACK

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

OVERHEAD STRUCTURE SUPPORT (LINE) CODE 1058

The “overhead structure support (line)” code is used for a line that represents the outline of an overhead structure support.

This point is to be described in the electronic survey data file.

Attributes;

INFO Description of the overhead structure support.

IE: CONCRETE, METAL I-BEAMS, PIPE RACK

INFO Any additional information.

IE: SUPPORTS PIPE RACK

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



UNLISTED POINT CODES 1100 THROUGH 1110

The “unlisted point” code is used for a point that represents the the center point of any point feature that is not defined by an existing feature code.

This point must be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: ACCIDENT SITE, HISTORIC MONUMENT

DTM;

This point will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

UNLISTED LINE CODES 1150 THROUGH 1160

The “unlisted line” code is used for a point that represents the the centerline of any linnear feature that is not defined by an existing feature code.

This line must be described in the electronic survey data file.

Attributes;

INFO Any applicable descriptive information.

IE: HISTORIC MONUMENT, UNDERGROUND STEAM LINE

DTM;

This line will not be used as a dtm feature.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

ROUND PIPE CULVERT INVERT (SIZED) CODES NUMBERED BETWEEN 2000 AND 2285

The “round pipe culvert invert” codes are used for lines that represent the centerline of a sized round pipe culvert at its invert. The sizes are identified by the code names.

In the event a pipe culvert is silted in, it will be necessary to dig out the silt at each point observed to locate the true invert of the pipe.

A pipe culvert invert is different than a pipe crossdrain invert in that the pipe culvert does not cross the road and a pipe crossdrain does.

These lines must be described in the electronic survey data file.

Attributes;

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized circle.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

ROUND PIPE CROSSDRAIN INVERT (SIZED) CODES NUMBERED BETWEEN 2300 AND 2583

The “round pipe crossdrain invert” codes are used for lines that represent the centerline of a sized round pipe crossdrain at it’s invert. The sizes are identified by the code names.

In the event a pipe crossdrain is silted in, it will be necessary to dig out the silt at each point observed to locate the true invert of the pipe.

A pipe crossdrain invert is different than a pipe culvert invert in that the pipe crossdrain crosses the road and a pipe culvert does not.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized circle.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

ARCH PIPE CULVERT INVERT (SIZED) CODES NUMBERED BETWEEN 2600 AND 3035

The “arch pipe culvert invert” codes are used for lines that represent the centerline of a sized arch pipe culvert at its invert. The sizes are identified by the code names and are sized by height x width.

In the event an arch pipe culvert is silted in, it will be necessary to dig out the silt at each point observed to locate the true invert of the pipe.

An arch pipe culvert invert is different than an arch pipe crossdrain invert in that the arch pipe culvert does not cross the road and an arch pipe crossdrain does.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL ARCH

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized circle.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

ARCH PIPE CROSSDRAIN INVERT (SIZED) CODES NUMBERED BETWEEN 3040 AND 3258

The “arch pipe crossdrain invert” codes are used for lines that represent the centerline of a sized arch pipe crossdrain at its invert. The sizes are identified by the code names and are sized by height x width.

In the event an arch pipe crossdrain is silted in, it will be necessary to dig out the silt at each point observed to locate the true invert of the pipe.

An arch pipe crossdrain invert is different than an arch pipe culvert invert in that the arch pipe crossdrain crosses the road and an arch pipe culvert does not.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the pipe is made of.

IE: CMP, RCP, METAL ARCH

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized circle.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

BOX CULVERT INVERT CENTERLINE (SIZED) CODES NUMBERED BETWEEN 5000 AND 5203

The “box culvert invert centerline” codes are used for lines that represent the centerline of a sized box culvert opening at its invert. The opening sizes are identified by the code names and are sized by height x width.

In the event a box culvert is silted in, it will be necessary to dig out the silt at each point observed to locate the true inverts of the box.

A box culvert invert is different than a box crossdrain invert in that the box culvert does not cross the road and a box crossdrain does.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the box is made of.

IE: CONCRETE

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized box.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument

BOX CROSSDRAIN INVERT CENTERLINE (SIZED) CODES NUMBERED BETWEEN 5300 AND 5503

The “box crossdrain invert centerline” codes are used for lines that represent the centerline of a sized box crossdrain opening at its invert. The opening sizes are identified by the code names and are sized by height x width.

In the event a box crossdrain is silted in, it will be necessary to dig out the silt at each point observed to locate the true inverts of the box.

A box crossdrain invert is different than a box culvert invert in that the box crossdrain crosses the road and a box culvert does not.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the box is made of.

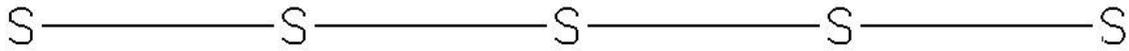
IE: CONCRETE

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized box.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.



ROUND SEWER LINE INVERT (SIZED) CODES NUMBERED BETWEEN 8000 AND 8233

The “round sewer line invert” codes are used for lines that represent the centerline of a sized round sewer line at it’s invert. The sizes are identified by the code names.

This line must be described in the electronic survey data file.

Attributes;

MATRL The material that the sewer line is made of.

IE: CLAY, PVC, IRON

OWNER The owner of the sewer line.

IE: CITY, PARISH, PRIVATE

DTM;

These lines will be used as dtm features however they will not be used for the surface. These lines will automatically display in a cross section and/or profile as a sized circle.

Observation requirements;

When this point is observed by the instrument, the instrument may be set to either the fine or the coarse measuring mode and one observation will be measured to the point in F1 of the instrument.

Sewer line inverts should be located at each sewer manhole. It will be necessary to remove the lid of the sewer manhole to locate the sewer line’s invert. The sewer manhole top (code 820) and sewer manhole bottom invert shot (code 821) will each require an observation due to the difference in elevation of the manhole top, the manhole bottom and the sewer line invert.