AND CONC. CONCRETE & COND. (TEL.) CONDUIT (SPECIFY TYPE) ΑТ CONN. CONNECTION A. A. D. T. ANNUAL AVERAGE DAILY TRAFFIC CONST. CONSTRUCTION AMERICAN ASSOCIATION OF STATE HIGHWAY CONST. PMT. **AASHTO** CONSTRUCTION PERMIT AND TRANSPORTATION OFFICIALS CORNER AB. ABRUPT CORR. CORRECTED OR CORRUGATION A.C. ALUMINUM CAP OR ASPHALT CEMENT COV. COVER ADD. EXC. ADDITIONAL EXCAVATION C.P. CATCH POINT ADJ. **ADJUSTED** CR. CRUSHED OR CREEK A. D. T. AVERAGE DAILY TRAFFIC CRS. COURSE ASSOCIATED GENERAL CONTRACTORS OF AMERICA C.S. OR CS CURVE TO SPIRAL AGC AGG. AGGREGATE C.S.F. OR CSF COMBINATION SCALE FACTOR C.S.P. OR CSP CORRUGATED STEEL PIPE AHEAD AH. ANSI AMERICAN NATIONAL STANDARDS INSTITUTE C.S.P.A OR CSPA CORRUGATED STEEL PIPE ARCH COURT APP. APPROACH CT. APPL. APPL ICATION C. T. B. OR CTB CEMENT TREATED BASE APPROX. **APPROXIMATE** CENTER CTR. ARTBA AMERICAN ROAD AND TRANSPORTATION C.T.S. OR CTS CRUSHED TOP SURFACING BUILDERS ASSOCIATION **CUL VERT** CUL V. ASPH. **ASPHALT** CUBIC YARD AMERICAN SOCIETY FOR TESTING & MATERIALS ASTM AVE. AVENUE D DEGREE OF CURVATURE, DISTRIBUTION OF TRAFFIC, DIAMETER, OR DEPTH AVERAGE AVG. AMERICAN WELDING SOCIETY DBL. DOUBLE AWS DEGREE OF CURVATURE (WITH SPIRALS) A7 IMUTH AZ. D٠ D.D. DOWN DRAIN DIFFERENCE IN ELEVATION BAL. BALANCE DF BBL. OR BBLS. BARREL OR BARRELS DEFL. DEFLECTION BRASS CAP В. С. DESC. DESCRIPTION BEGIN CURB RETURN B.C.R. DEST. DESTROYED B.E. OR BE BRIDGE END DET. DETOUR OR DETAIL BEG. BEGIN DETC. DETECTOR BIT. BITUMINOUS OR BITUMEN D. H. DRILL HOLE BACK OR BANK D. H. V. DESIGN HOURLY VOLUME BK. BLDG. BUILDING D. I. DROP INLET BLOCK DIAMETER BLK. DIA. U.S. BUREAU OF LAND MANAGEMENT B.L.M. OR BLM DIST. DISTANCE OR DISTRICT BL VD. BOULEVARD DN. DOWN B. M. BENCH MARK DP. DEEP BNDRY. BOUNDARY DR. DRAIN OR DRIVE вот. BOTTOM DT. DITCH BRIDGE DETAIL OR DETAILED DTL. BR. B.R. BASE OF RAIL DWG. DRAWING BRG. BEARING DY. **DAYLIGHT** BACKSIGHT B.S. OR BS B.S.T. BITUMINOUS SURFACE TREATMENT EAST OR EXTERNAL DISTANCE B. W. FE. BARBED WIRE FENCE EASE. OR ESMT. EASEMENT E.B. OR EB EASTBOUND С CUT E.C.R. END CURB RETURN E.D.M. OR EDM C/A CONTROL OF ACCESS ELECTRONIC DISTANCE MEASUREMENT C. A. C. OR CAC CRUSHED AGGREGATE COURSE OR MEASURER E.G. EDGE OF GUTTER CALC. CALCULATED C. A. P. OR CAP CORRUGATED ALUMINUM PIPE ELEV. OR EL. ELEVATION CATV CABLE TV ELONG. ELONGATED CURB CB. ELY. EASTERLY C. B. CATCH BASIN FMB. EMBANKMENT C. B. W. CONCRETE BLOCK WALL EMUL. **EMULSIFIED** C.C. CLOSING CORNER E. O. EDGE OF OIL EDGE OF PAVEMENT CDTN. CONDITION E.P. CEM. CEMENT EQ. EQUATION CURB & GUTTER Εs EXTERNAL DISTANCE (WITH SPIRALS) C&G C.G. CATTLE GUARD E.S. EDGE OF SHOULDER CHANNEL OR CHAIN E.T.W. OR ETW EDGE OF TRAVELED WAY CH. CH. CH. CHANNEL CHANGE EW. END WALL CHD. EXISTING EX. CHIS. "x" CHISELED CROSS EXC. EXCAVATION CURB INLET EXT. EXTENSION C. I. CIR. CIRCLE EXWY. EXPRESSWAY DETAILED DRAWING CL. CLASS OR CLEARANCE REFERENCE DWG. NO. CL-4F,5F CHAIN LINK FENCE (W/ HEIGHT - ENGLISH) 101-05 CL-1.2F, 1.5F CHAIN LINK FENCE (W/ HEIGHT - METRIC) SECTION 101 C/L OR € CENTERL INE C.M.P. OR CMP CORRUGATED METAL PIPE

CONCRETE NAIL

CLEAN OUT

COMPACTION

COUNTY OR COMPANY

C.N.

C. O.

COMP.

**ABBREVIATIONS** 

MONTANA DEPARTMENT OF TRANSPORTATION

EFFECTIVE: SEPTEMBER 2014

LENGTH OF CURVE, LITER OR ANGLE IRON FILL L F.A. FEDERAL AID LB. POUND F. C. FLOOD CONTROL LENGTH OF CIRCULAR CURVE 1. FOUND L.C. LONG CHORD FOUNDATION LOOP DETECTOR FDN. L.D. LENGTH OR LENGTHEN FE. FENCE LENG. FERT. **FERTILIZER** L.F. LINEAR FOOT F.E.T.S. OR FETS FLARED END TERMINAL SECTION LN. LANE FINISHED GRADE OR FRONT OF GUTTER F.G. OR FG Ls LENGTH OF SPIRAL F.G.S. FINISHED GRADE STAKE L.S. LAND SURVEYOR F.H. FIRE HYDRANT LT. LEFT FHWA FEDERAL HIGHWAY ADMINISTRATION FIN. FINISH m METER FLUSH m² SQUARE METER FL. F.L. OR FL FLOW LINE m³ CUBIC METER F.O. OR FO FIBER OPTIC CABLE MILLIMETER mm F.P. FENCE POST mm² SQUARE MILLIMETER FR. OR FR MATERIAL FRONTAGE MATL. FR. RD. FRONTAGE ROAD MAX. MAXIMUM F.S. OR FS M. C. OR MC FORESIGHT MEDIUM CURING FT. FOOT OR FEET MDT MONTANA DEPARTMENT OF TRANSPORTATION FTG. FOOTING MEAS. MEASURED FUT. **FUTURE** MED. MEDIAN FREEWAY MANHOLE FWY. MH. MIN. MINIMUM, MINERAL OR MINUTE GRAM MISC. MISCELL ANEOUS а G GRADING MKR. MARKER GAUGE MAINI INF GA. M. I. GALLON MNCPL. MUNICIPAL GALVANIZED MID ORDINATE GAL V. M. O. GARAGE GAR. MON. MONUMENT GEOD. M. P. C. OR MPC MID-POINT OF CURVE GEODETIC MANUAL ON UNIFORM TRAFFIC G.L. GAS LINE MUTCD G. L. O. GENERAL LAND OFFICE CONTROL DEVICES G.P.S. OR GPS GLOBAL POSITIONING SYSTEM M. Y. MILE YARD GR. GRADE G.R. GUARDRAIL Ν NORTH GRD GRID N.B. OR NB NORTHBOUND GRND. GROUND N.C. NORMAL CROWN GRADE SEPARATION GR. SEP. N.E. NORTHEAST GRAVEL SURFACING N.G. OR NG NATURAL GAS G.S. G. S. P. OR GSP GALVANIZED STEEL PIPE N. G. S. OR NGS NATIONAL GEODETIC SURVEY GTR. GUTTER NL. NAIL G. V. GAS VALVE NLY. NORTHERLY NO. OR # NUMBER HECTARE N. W. NORTHWEST ha NORMAL WATER ELEVATION HDWL. HEADWALL N. W. EL. HEADGATE HG. H. I. OR HI HEIGHT OF INSTRUMENT O. OR O/S OFFSET но. HOUSE O. C. ON CENTERS OR OVERHEAD CROSSING HORIZONTAL HOR. O. D. OUTSIDE DIAMETER HINGE POINT O. G. OLD GROUND OR ORIGINAL GROUND H. P. HT. HE IGHT OH. OVERHANG OR OVERHEAD н&Т HUB & TACK OHWM ORDINARY HIGH WATER MARK H. W. HIGH WATER O' PASS OVERPASS HIGHWAY HWY. POWER CABLE, PIPE OR PRIMARY Ρ INTERSTATE P. OR PG. INCIDENTAL CONSTRUCTION I. C. PAVT. PAVEMENT INSIDE DIAMETER I. D. P. B. PULL BOX P.C. OR PC POINT OF CURVE (BEGINNING) I.E. INVERT ELEVATION IN. P.C.C. OR PCC POINT OF COMPOUND CURVE OR INCORPORATED OR INCREMENT PORTLAND CEMENT CONCRETE INC. INCL. INCLUDED P. C. S. PROJECT CONTROL SYSTEM P.E. OR PE INSTR. INSTRUMENT PRELIMINARY ENGINEERING INT. INTERSECTION OR PROFESSIONAL ENGINEER INTCH. INTERCHANGE INVERT INV. I.P. IRON PIN DETAILED DRAWING IRR. IRRIGATION REFERENCE DWG. NO. I.R.T.S. OR IRTS INTERSECTING ROADWAY TERMINAL SECTION 101-06 SECTION 101 JCT. JUNCTION J.P. JOINT USE POLE

KILOGRAM

KILOMETER

ka

MODIA MONTANA DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS** 

PERF. PERFORATED SLP. STK. SLOPE STAKE P. I. OR PI POINT OF INTERSECTION SLY. SOUTHERLY PL. PLACE, PLATE OR PLANT STAND PIPE OR STATE PLANE SPEC. PROV. P. I. PROPERTY LINE SPECIAL PROVISION PLAS. PLASTIC S. P. H. P. STEEL PIPE, HIGH PRESSURE P. M. PRINCIPAL MERIDIAN OR PUNCH MARK SPK. SPIKE P. M. B. PLANT MIX BASE SQ. SQUARE S.S. OR SS P. M. P. PERFORATED METAL PIPE EMULSIFIED ASPHALT P.M.S. OR PMS PLANT MIX SURFACING S. S. P. P. STRUCTURAL STEEL PLATE PIPE PMT. PERMIT OR SSPP P.O.C. OR POC POINT ON CURVE S. S. P. P. A. STRUCTURAL STEEL PLATE PIPE ARCH P.O.L. OR POL POINT ON LINE OR SSPPA P.O.S. OR POS POINT ON SPIRAL S. S. P. P. A. C. STRUCTURAL STEEL PLATE PIPE ARCH P.O.S.T. OR POST POINT ON SEMI-TANGENT OR SSPPAC CULVERT P.O.T. OR POT POINT ON TANGENT S. T. OR ST SPIRAL TO TANGENT P.O.V.C. OR POVC POINT ON VERTICAL CURVE ST. STREET P.P. OR PP POWER POLE STA. STATION PP. PAGES STD. STANDARD PREST. PRESTRESSED STD. SPEC. STANDARD SPECIFICATIONS PRIM. PRIMARY STK. STAKED OR STAKE PROC. PROCESSING STL. STEEL PROJ. PROJECT OR PROJECTED STM. STORM DRAIN PROTECT. PROTECTOR OR PROTECTION STPD. PROT. STAMPED P.T. OR PT POINT OF TANGENT (END OF CURVE) STRUCTURE OR STRAIGHT STR. POINT SUBD. SUBDIVISION PT. P.T.W. OR PTW PRESENT TRAVELED WAY SURFACE OR SURFACING SURF. PVC. OR PVC POLYVINYL CHLORIDE SURV. SURVEY PVT. PRIVATE S. W. SOUTHWEST OR SIDEWALK PWR. OR PWR POWER (LINES) S.Y. SQUARE YARD Ω PEAK DISCHARGE (WATER) + METRIC TON TOWNSHIP, TANGENT LENGTH, QTY. QUANTITY PERCENT TRUCKS, OR THICKNESS RANGE, RADIUS OR RISE TANGENT T.B.C. OR TBC TOP BACK OF CURB R. A. C. E. T. ROAD APPROACH CULVERT END TREATMENT OR RACET T. B. M. TEMPORARY BENCH MARK R. A. P. OR RAP RECYCLED ASPHALT PAVEMENT TRR TIMBER SPIRAL CURVE RADIUS TEL. OR TEL TELEPHONE R.C. OR RC RAPID CURING TEL.C. TELEPHONE CABLE R.C.B. OR RCB REINFORCED CONCRETE BOX TELG. TELEGRAPH R. C. P. OR RCP REINFORCED CONCRETE PIPE TEL.P. TELEPHONE POLE R.C.P.A. OR RCPA REINFORCED CONCRETE PIPE ARCH TEMP. TEMPERATURE OR TEMPORARY RD. ROAD THK. THICKNESS RDL. RADIAL TK. TACK RDWY. ROADWAY TOL. TOLERANCE RECORD TOPOG. TOPOGRAPHIC REC. REF. REFERENCE T.P. OR TP TURNING POINT REINF. REINFORCEMENT TR. TRACT RET. W. RETAINING WALL TRANS. TRANSMISSION LINE OR TRANSITION RIV. RIVER TRAV. TRAVERSE REFERENCE MONUMENT TRIA. TRIANGUL ATION R.M. REFERENCE POINT, POST OR RADIUS POINT R.P. OR RP T. R. M. TRURF REINFORCEMENT MAT LENGTH OF TANGENT (CURVE WITH SPIRALS) R.R. RAILROAD Τs RT. RIGHT OR ROUTE T.S. OR TS TANGENT TO SPIRAL ROUTE T.T. OR TT TRANSMISSION TOWER RTE. R/W RIGHT OF WAY TYP. TYPICAL RY. RAILWAY Ш UNIT RATE OF FULL SUPERELEVATION, SLOPE U.G. UNDERGROUND IN FT. PER FT., SPAN, SOUTH OR SECONDARY LINCL . **UNCLASSIFIED** SATELLITE (FOR TRAVERSE USE) SA. U' PASS UNDERPASS U.S.C. & G.S. SANITARY SEWER U.S. COAST & GEODETIC SURVEY SAN. SEW. S.B. OR SB SOUTHBOUND U. S. C. E. U.S. CORPS OF ENGINEERS S.C. OR SC SPIRAL TO CURVE OR SLOW CURING U. S. F. S. U.S. FOREST SERVICE SCH. SCHEDULE U. S. G. S. U.S. GEOLOGICAL SURVEY SDWK. SIDEWALK U. S. P. L. S. U.S. PUBLIC LAND SURVEY SOUTHEAST S.E. SECTION, SECOND OR SECONDARY SEC. DETAILED DRAWING SEL. SELECT S.G., SG REFERENCE DWG. NO. SUBGRADE 101-07 OR SUBGR. SECTION 101 SHLD. OR SH. SHOULDER SHT. SHEET

SLOT. DR.

SLOTTED DRAIN

PEN.

SING.

SIP.

S.L.D.

SINGLE

SIPHON

SEA LEVEL DATUM

PENETRATION

EFFECTIVE: SEPTEMBER 2014

MONTANA DEPARTMENT
OF TRANSPORTATION

**ABBREVIATIONS** 

V DESIGN SPEED OR VELOCITY
V. A. B. M. VERTICAL ANGLE BENCH MARK

V.C. OR VC VERTICAL CURVE

V.C. CORR. VERTICAL CURVE OFFSET CORRECTION

V. C. M. VERTICAL CONTROL MONUMENT

V. C. P. VITRIFIED CLAY PIPE

VEH. VEHICULAR
VERT. OR VT. VERTICAL
VIT. VITRIFIED
V.P. VENT PIPE

V.P.C. OR VPC VERTICAL POINT OF CURVE
V.P.I. OR VPI VERTICAL POINT OF INTERSECTION
V.P.T. OR VPT VERTICAL POINT OF TANGENCY

W WEST OR WIDTH W/ WITH W.B. OR WB WESTBOUND WITNESS CORNER W.C. W.L. WATER LINE WESTERLY WLY. W/0 WITHOUT W.P. WING POINT

W.S. WATER SERVICE OR WARPED OR VARIABLE SLOPE

WT. WEIGHT
W. T. WATER TABLE
W. V. WATER VALVE

W. W. WING WALL OR WOVEN WIRE

YD YARD
YD² SQUARE YARD
YD³ CUBIC YARD

XING. CROSSING
XSEC. CROSS SECTION

DETAILED DRAWING

REFERENCE STANDARD SPEC SECTION 101 DWG. NO. 101-08

**ABBREVIATIONS** 

EFFECTIVE: SEPTEMBER 2014



