

**1996 Insertable Sheet List
For Use With The 1996 Metric Road and Bridge Standards
July 2005**

The following is a complete list of special design **Metric** insertable sheets that will be used with the 1996 Road and Bridge Standards. These sheets have been loaded on Falcon DMS for VDOT personnel and on the FTP server for the consultant community.

Falcon Location:	<u>Imperial</u>		<u>Metric</u>
PPMS#	eng-ser	PPMS#	eng-ser
Division	insert	Division	minsert

FTP Location:	<u>Imperial path</u>	download/insertable-sheets/imperial-inserts
	<u>Metric path</u>	download/insertable-sheets/metric-sheets

The information below shows the file name as it is on the system, the title of the Insertable Sheet, the description of the 7-04 changes, the applicable Standard, and the date the file was revised by Engineering Services. The new/revised sheets and descriptions of the 7-04 changes are in bold. **Note that the new/revised Insertable Sheets will be applicable to projects going to Advertisement in February 2006.**

If you need the Portable Impact Attenuator Insertable Sheets, MSD799, MSD819, and/or MSD1660, please contact Chuck Patterson of Engineering Services at (804) 786-1805.

<u>NUMBER</u>	<u>TITLE (INCL. DESCRIPT. OF 7-05 CHANGES)</u>	<u>STD</u>	<u>DATE</u>
ma2.dgn	HYDROLOGIC DATA SHEET	N/A	Rev. 9-87
ma4.dgn	ROADSIDE DEVELOPMENT	N/A	Rev. 7-03
ma5.dgn	EROSION CONTROL SUMMARY	N/A	Rev. 7-02
ma6.dgn	TEMPORARY SEDIMENT TRAP DETAIL SHEET	N/A	New 2-01
ma9.dgn	PRELIMINARY RIGHT OF WAY DATA SHEET	N/A	Rev. 6-97
ma14.dgn	REVISION DATA SHEET	N/A	Rev. 9-23-93
ma20.dgn	STANDARD MANHOLE FRAME AND COVER	MH-1	New 7-02
ma36.dgn	RADIAL OFFSET / REVERSE CURVE DATA	N/A	Rev. 9-23-93
ma41.dgn	UNDERGROUND UTILITY TEST HOLE INFORMATION	N/A	Rev. 1-95
ma45.dgn	TEMPORARY DIVERSION CHANNEL & ACCEPTABLE LININGS	TD-CL	New 8-00
ma47.dgn	W-BEAM GUARDRAIL INSTALLATION CRITERIA	GR-FOA-3	Rev. 7-98
ma55.dgn	STANDARD SIDEWALK UNDERDRAIN	UD-3	Rev. 7-03
ma57.dgn	STANDARD ENDWALL FOR PIPE UNDERDRAIN	EW-12	Rev. 7-04

ma59.dgn	CG-12 DETECTABLE WARNING SURFACE (ACCESS FOR MOBILITY IMPAIRMENTS) Update detectable warning (truncated domes) to meet new ADA guidelines.	CG-12	Rev. 7-05
ma62.dgn	TYPICAL CONCRETE SAFETY SLAB Revised notes to remove language that no additional compensation will be provided for additional safety slabs needed for precast structures.	SL-1	Rev. 7-05
ma65_1.dgn	W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT	GR-FOA-1	New 7-01
ma65_2.dgn	W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT	GR-FOA-1	New 7-01
ma66_1.dgn	W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT	GR-FOA-2	New 7-01
ma66_2.dgn	W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT	GR-FOA-2	New 7-01
ma67.dgn	BLOCKED-OUT W-BEAM MEDIAN BARRIER-FIXED OBJECT ATTACHMENT	GR-FOA-4	Rev. 2-01
ma68.dgn	STANDARD HAND RAIL	HR-1	Rev. 7-04
ma69.dgn	STONE FOR EROSION CONTROL, PROTECTIVE COVERING INSTALLATION CRITERIA	EC-1,EC-2	New 2-01
ma70.dgn	SOIL STABILIZATION MAT DITCH INSTALLATION TYPE A OR B Revised language in note for use of soil stabilization mat from "shall" to "may" and corrected dimension on terminal diagram.	EC-3	Rev. 7-05
ma71.dgn	GRADING DIAGRAM AND SUMMARY	N/A	Rev. 5-99
ma73.dgn	TYPICAL METHOD OF INSTALLATION FOR PIPE ON FILL SLOPE	N/A	Rev. 12-93
ma75.dgn	TYPICAL PAVEMENT MARKINGS FOR BICYCLE LANE	PM-6	Rev 2-01
ma76.dgn	STANDARD ENTRANCE GUTTER WITH FLARED OPENING FOR USE ACROSS SIDEWALK	CG-9A	New 5-99
ma77.dgn	METHOD OF TREATMENT-CONNECTION FOR STREET INTERSECTIONS AND COMMERCIAL ENTRANCES	CG-11	Rev. 2-01
ma78.dgn	STANDARD ENTRANCE GUTTER	CG-9D	Rev. 1-04
ma80.dgn	STANDARD GROUNDWATER UNDERDRAIN; UNDERDRAIN STANDARD FOR USE WITH RAISED GRASS MEDIAN	UD-1 UD-2	Rev. 7-03
ma81.dgn	STANDARD PAVEMENT EDGEDRAIN	UD-4	Rev. 1-04
ma82.dgn	PREFABRICATED GEOCOMPOSITE RETROFIT PAVEMENT EDGEDRAIN	UD-5	New 8-00
ma83.dgn	STANDARD RETROFIT EDGEDRAIN	UD-7	Rev. 7-03

ma84.dgn	STANDARD COMBINATION UNDERDRAIN; (AT LOWER END OF CUTS AND AT GRADE SAGS AND BRIDGE APPROACHES)	CD-1, CD-2	Rev. 7-03
ma86.dgn	CIRCULAR AND ELLIPTICAL PIPE BEDDING – METHOD “A”	PB-1	Rev. 7-04
ma87.dgn	STANDARD BLOCKED-OUT W-BEAM GUARDRAIL (STRONG POST) POST AND BLOCKOUT DETAILS Modified guardrail height tolerance.	GR-2,2A	Rev. 7-05
ma88.dgn	GUARDRAIL AT LOW-FILL CULVERTS	GR-10	Rev. 1-04
ma89.dgn	BRAKEAWAY CABLE TERMINAL 4’ FLARE	GR-7	Rev. 7-04
ma91.dgn	STANDARD W-BEAM GUARDRAIL (WEAK POST SYSTEM)	GR-8,8A,8B,8C	Rev. 1-04
ma92.dgn	W-BEAM GUARDRAIL INSTALLATION CRITERIA 20’ minimum radius changed to 5’ minimum. Added note stating radial not to be used in place of GR-6, 7, or 9.	GR-INS	Rev. 7-05
ma93.dgn	W-BEAM GUARDRAIL AND MEDIAN BARRIER INSTALLATION CRITERIA	GR-INS	Rev. 1-04
ma94.dgn	BLOCKED-OUT W-BEAM BARRIER	MB-3	Rev. 7-98
ma95.dgn	STANDARD W-BEAM MEDIAN BARRIER (WEAK POST SYSTEM) Removed structure mounted barrier.	MB-5	Rev. 7-05
ma96.dgn	CONCRETE MEDIAN BARRIER (TALL WALL)	MB-12A,12B, 12C	Rev. 7-04
ma97.dgn	SOLID PAVING UNITS (SIDEWALK & CROSSWALK)	N/A	Rev. 7-04
ma103.dgn	PRECAST TRAFFIC BARRIER SERVICE CONCRETE WITH POSITIVE CONNECTION Added note concerning dynamic deflection. Removed C-channel temporary installation.	MB-7D PC	Rev. 7-05
ma104.dgn	CONCRETE MEDIAN BARRIER (TALL WALL) TYPE I,II,OR III	MB-13	Rev. 1-04
ma105_1.dgn	PRECAST CONCRETE MEDIAN BARRIER POSITIVE CONNECTION OPTIONS Added note concerning dynamic deflection of barrier connections. Sheet 2 of 5 and Sheet 3 of 5	MB-INS	Rev. 7-05
ma105_02.dgn	PRECAST CONCRETE MEDIAN BARRIER POSITIVE CONNECTION OPTIONS Added note concerning dynamic deflection of barrier connections. Sheet 1 of 5	MB-INS	New 7-05
ma106.dgn	WETLAND COMPENSATION PLANT LIST, SUMMARY AND NOTES	N/A	Rev. 10-99
ma108.dgn	COMMERCIAL ENTRANCE	CG-13	Rev. 1-04

ma111.dgn	STANDARD PRECAST BASE UNITS	B-3	Rev. 6-97
ma112.dgn	CORRUGATED METAL TEE SECTION	B-4	Rev. 6-97
ma116.dgn	STRUCTURAL PLATE STEEL PIPE ARCH HEIGHT OF COVER TABLE FOR H-18 LIVE LOAD	PC-1	Rev. 1-97
ma120.dgn	PIPE ARCH AND BOX CULVERT BEDDING	PB-1	Rev. 1-04
ma121.dgn	CONCRETE PIPE CLASS TABLE FOR H-18 LIVE LOAD	PC-1	New 2-01
ma124.dgn	DETAILS FOR CALCULATING NUMBER AND SIZE OF WOOD POSTS FOR CONSTRUCTION SIGN INSTALLATIONS LEVEL GROUND	CSI-1	Rev. 12-97
ma125.dgn	DETAILS FOR CALCULATING NUMBER AND SIZE OF WOOD POSTS FOR CONSTRUCTION SIGN INSTALLATIONS 1 1/2:1 SLOPE	CSI-1	Rev. 12-97
ma126.dgn	DETAILS FOR CALCULATING NUMBER AND SIZE OF WOOD POSTS FOR CONSTRUCTION SIGN INSTALLATIONS 2:1 SLOPE	CSI-1	Rev. 12-97
ma127.dgn	JUNCTION BOX	JB-1A, 2A, 3A, 4A, 5A	New 8-97
ma128.dgn	LIGHTING POLE FOUNDATION INSTALLATION DETAILS; SIGNAL POLE FOUNDATION INSTALLATION DETAILS	LF-1, PF-1	New 8-97
ma129.dgn	TYPICAL DETAILS FOR OVERHEAD SIGN STRUCTURES	OSS-1	New 8-97
ma130.dgn	FLARED END-SECTION FOR METAL PIPE-ARCHES 340 mm - 1200 mm RISE; 575 mm X 365 mm – 1345 mm X 855 mm ELLIPTICAL CONCRETE PIPE	ES-3,ES-1A	Rev. 7-01
ma131.dgn	200 mm THICK CONTINUOUSLY REINFORCED CONCRETE PAVEMENT (STEEL BAR REINFORCEMENT)	PR-3	New 8-97
ma132.dgn	TERMINAL TREATMENT FOR W BEAM GUARDRAIL	GR-6	Rev. 7-04
ma133.dgn	CABLE GUARDRAIL	GR-3	Rev. 7-04
ma135.dgn	STANDARD PRECAST TOP UNITS	T-DI-5	New 2-01
ma136.dgn	SITE PREPARATION FOR GR-7 AND GR-9	GR-SP	Rev 7-04
ma137.dgn	PLANTING DETAILS	L-5	New 2-01
ma138.dgn	STANDARD BOX CULVERT GUARDRAIL (TEXAS T-6)	BGR-01	New 2-01
ma142.dgn	FLARED END-SECTION FOR CONCRETE PIPE CULVERTS; 300 mm – 1500 mm METAL PIPE CULVERTS	ES-1, ES-2	New 7-01
ma143.dgn	STANDARD SPRING BOX PRECAST SPRING BOX	SB-1 SB-1 PC	Rev. 3-03
ma144.dgn	STANDARD CONCRETE STEPS FOR 1½:1 SLOPE STANDARD CONCRETE STEPS FOR 2:1 SLOPE	S-1 S-2	New 7-02
ma145.dgn	TRAILING END TERMINAL TREATMENT Correct detail name for anchor cable and anchor plate.	GR-11	Rev. 7-05

ma146.dgn	W BEAM GUARDRAIL INSTALLATION CRITERIA	GR-INS	Rev. 3-03
ma147.dgn	W-BBEAM GUARDRAIL INSTALLATION CRITERIA FIXED OBJECT ATTACHMENT METHOD FOR CONSTRUCTION ZONES	FOA-CZ	New 3-03
ma148.dgn	STANDARD PRECAST TOP UNITS	TDI-2 TDI-3	New 3-03
ma149.dgn	STANDARD MAILBOX	RFD-1	Rev. 7-04
ma150.dgn	PLAIN AND REINFORCED CONCRETE PAVEMENT SHOWING REINFORCEMENT, LONGITUDINAL AND TRANSVERSE JOINTS	PR-2	New. 7-03
ma151.dgn	PIPE BEDDING AND BACKFILL	PB-1	New 1-04
ma152.dgn	STANDARD FENCE AND GROUNDING	FE-CL	Rev. 7-04
ma153.dgn	STANDARD CURB DROP INLET	DI-2A, B, C DI -2D, E, F	New 1-04
ma154.dgn	TYPICAL DETAILS FOR OVERHEAD SIGN STRUCTURES Revised the anchor bolts and conduit.	OSS-1	Rev. 7-05
ma155.dgn	TYPICAL DETAILS FOR OVERHEAD SIGN STRUCTURES	OSS-1	Rev. 5-04
ma156.dgn	TYPICAL DETAILS FOR SIGN STRUCTURES Revised the sign panel fastening methods.	SSP-VA SSP-VIA	Rev. 7-05
ma157.dgn	TYPICAL DETAILS FOR OVERHEAD SIGN STRUCTURES AND SIGN PANEL DESIGN Revised the anchor bolts and sign panel fastening methods.	OSS-1 SPD-1	Rev. 7-05
ma158.dgn	15" PIPE TEE SECTION DROP INLET	DI-9	New 7-04
ma159.dgn	STANDARD SOLID CONCRETE RAISED MEDIAN STRIP	MS-1 MS-1A	New 7-04
ma160.dgn	STANDARD FENCE WOVEN WIRE FABRIC STANDARD FENCE BARBED WIRE	FE-W1,W2 FE-B	New 7-04
ma161.dgn	CONCRETE GRAVITY RETAINING WALLS Corrected units for bearing capacity from MPa to KPa.	RW-2 RW-3	Rev. 7-05
ma162.dgn	SANITARY SEWER MANHOLE WATER AND SANITARY SEWER FACILITIES Revised Notes.	SMH-1	New 7-05
ma163.dgn	MULTIGRATE DROP INLET Replaced curved grate with a flat grate. Sheet 2 of 3	DI-12, 12A	New 7-05

ma164.dgn	MULTIGRATE DROP INLET Replaced curved grate with a flat grate. Sheets 1 of 2 and 2 of 2	DI-12B, 12C	New 7-05
ma165.dgn	SHOULDER SLOT INLET Added note that face of guardrail and face of curb shall be flush. Sheet 2 of 2	DI-13	New 7-05
ma166_1.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 1 and 2	PC-1	New 7-05
ma166_2.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 3 and 4	PC-1	New 7-05
ma166_3.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 5 and 6	PC-1	New 7-05
ma166_4.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 7 and 8	PC-1	New 7-05
ma166_5.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 9 and 10	PC-1	New 7-05
ma166_6.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 11 and 12	PC-1	New 7-05
ma166_7.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 13 and 14	PC-1	New 7-05
ma166_8.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 15 and 16	PC-1	New 7-05
ma166_9.dgn	ALLOWABLE PIPE CRITERIA Updated tables to match drainage manual. Sheets 17 and 18	PC-1	New 7-05
ma167.dgn	TYPICAL BRIDGE PARAPET SIGN SIGNAL POLE FOUNDATION Revised the anchor bolts.	BSS-1 PF-1	New 7-05
ma168.dgn	TYPICAL PAVEMENT MARKINGS FOR BICYCLE LANE TYPICAL PAVEMENT MARKING DETAILS Revised the pavement message marking and skip line spacing.	PM-6 PM-1	New 7-05
ma169.dgn	PEDESTRIAN SIGNAL INDICATION DETAILS Deleted SP 1 – 4. All new pedestrian signals SP 5 - 9.	S-5,6,7,8,9	New 7-05

msd414_1.dgn	EROSION CONTROL	ESC-INS	Rev. 3-03
msd414_2.dgn	EROSION CONTROL	ESC-INS	Rev. 3-03
msd414_3.dgn	EROSION CONTROL	ESC-INS	New 2-01
msd414_4.dgn	TEMPORARY EROSION & SILTATION CONTROL	ESC-INS	Rev. 3-03
msd564a.dgn	DITCH FLUME CONNECTOR	PG-7	New 7-02
msd570.dgn	STANDARD PAVED DITCHES	PG-2A PG-3	Rev. 7-03
msd1165a.dgn	TRAFFIC BARRIER SERVICE CONCRETE PARAPET (DOUBLE FACED FOR TEMPORARY INSTALLATION ON BRIDGE DECK EXTERIOR)	MB-11A	New 12-99
msd1276a.dgn	TRAFFIC BARRIER SERVICE SINGLE FACE PARAPET (FOR SINGLE FACE TEMPORAY INSTALLATION ON BRIDGE DECK EXTERIOR)	MB-10A	Rev. 7-02
msd1482.dgn	SPECIAL DESIGN SLOPE DRAIN	N/A	Rev. 12-99
msd1588.dgn	LOW FLOW DIVERSION FOR MULTIPLE LINE CULVERT INSTALLATIONS	N/A	Rev. 9-94
msd1676a.dgn	CONCRETE MEDIAN BARRIER 3.65 m TERMINAL SECTION	MB-9A	Rev. 8-97
msd1722a.dgn	RUMBLE STRIPS	RS-1	Rev. 11-02
msd1821.dgn	DETAILS FOR BACKFILLING ABANDONED CULVERTS	PP-1	Rev. 7-97
msd1954a.dgn	CONCRETE MEDIAN BARRIER TYPE I, II, III 810 mm FOR GRADE DIFFERENCE Remove epoxy coated from reinforcing bars note.	MB-8A	Rev. 7-05
msd2045.dgn	SPECIAL DESIGN CONCRETE SLAB END TREATMENT	N/A	Rev. 10-10-97
msd2063.dgn	BUTTING TRAFFIC BARRIER SERVICE TO SINGLE FACE PARAPET SERVICE	MB-INS	Rev. 7-02
msd2154a.dgn	ASPHALT CURB AND GUTTER, ASPHALT PAVING UNDER GUARDRAIL	MC-4	Rev. 2-01
msd2209.dgn	STORMWATER MANAGEMENT	SWM-DR	Rev. 3/03
msd2216.dgn	STORMWATER MANAGEMENT (SWM) DETAILS	SWM-1	Rev. 3/03
msd2216A.dgn	STORMWATER MANAGEMENT (SWM) DETAILS	SWM-DR	Rev. 3/03
msd2330.dgn	STORAGE FACILITY FOR NUCLEAR GAUGE	NG-1	New 5-99

msd2390.dgn	ALTERNATE BREAKAWAY CABLE TERMINAL NO FLARE Removed MB-5 from insertable sheet. See insertable sheet ma95 for MB-5.	GR-9	Rev. 7-05
msd2623.dgn	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	PR-6	Rev. 1-04
msd2724.dgn	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	PR-5	Rev. 1-04
msd2761.dgn	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	PR-7	Rev. 1-04
msd2861.dgn	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	PR-8	Rev. 1-04
msd2862.dgn	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	PR-9	Rev. 1-04
msd2944.dgn	SINK HOLE DETAILS	N/A	New. 11-02
msd2945.dgn	MODIFIED PG-2A AND MODIFIED PG-5	N/A	New. 11-02
msd86.dgn	86 CADD LEVEL STRUCTURE SHEET	N/A	New 1-96
msd95.dgn	95 CADD LEVEL STRUCTURE SHEET Revised survey level structure.	N/A	Rev.7-04
minsertr	Current Insertable Sheet List		Rev. 7-05