

**1996 Insertable Sheet List  
For Use With The 1996 Metric Road and Bridge Standards  
September 2006**

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.

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

**FTP Location:** Imperial path download/insertable-sheets/imperial-inserts  
Metric path 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 9-06 changes, the applicable Standard, and the date the file was revised by Engineering Services. The new/revised sheets and descriptions of the 9-06 changes are in bold. **Note that the new/revised Insertable Sheets will be applicable to projects going to Advertisement in March 2007.**

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 9-06 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. 2-06
ma57.dgn	STANDARD ENDWALL FOR PIPE UNDERDRAIN	EW-12	Rev. 7-04
ma59.dgn	CG-12 DETECTABLE WARNING SURFACE (ACCESS FOR MOBILITY IMPAIRMENTS)	CG-12	Rev. 7-05
ma62.dgn	TYPICAL CONCRETE SAFETY SLAB	SL-1	Rev. 7-05

<b><u>NUMBER</u></b>	<b><u>TITLE (INCL. DESCRIPT. OF 9-06 CHANGES)</u></b>	<b><u>STD</u></b>	<b><u>DATE</u></b>
ma65_1.dgn	<b>W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT</b> Guardrail height changed to match GR-2.	GR-FOA-1	Rev. 9-06
ma65_2.dgn	<b>W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT</b> Revised dimension of guardrail on parapet.	GR-FOA-1	Rev. 9-06
ma66_1.dgn	<b>W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT</b> Guardrail height changed to match GR-2.	GR-FOA-2	Rev. 9-06
ma66_2.dgn	<b>W-BEAM GUARDRAIL - FIXED OBJECT ATTACHMENT</b> Revised dimension of guardrail on parapet.	GR-FOA-2	Rev. 9-06
ma67.dgn	<b>BLOCKED-OUT W-BEAM MEDIAN BARRIER-FIXED OBJECT ATTACHMENT</b> Guardrail height changed to match MB-3.	GR-FOA-4	Rev. 9-06
ma68.dgn	STANDARD HAND RAIL	HR-1	Rev. 7-04
ma69.dgn	<b>STONE FOR EROSION CONTROL, PROTECTIVE COVERING INSTALLATION CRITERIA</b> Added dimension tables for length and thickness of erosion control stone.	EC-1,EC-2	New 9-06
ma70.dgn	SOIL STABILIZATION MAT DITCH INSTALLATION TYPE A OR B	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	Rev. 2-06
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. 2-06
ma80.dgn	STANDARD GROUNDWATER UNDERDRAIN; UNDERDRAIN STANDARD FOR USE WITH RAISED GRASS MEDIAN	UD-1 UD-2	Rev. 2-06
ma81.dgn	STANDARD PAVEMENT EDGEDRAIN	UD-4	Rev. 2-06
ma82.dgn	PREFABRICATED GEOCOMPOSITE RETROFIT PAVEMENT EDGEDRAIN	UD-5	New 8-00
ma83.dgn	STANDARD RETROFIT EDGEDRAIN	UD-7	Rev. 2-06
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

<u>NUMBER</u>	<u>TITLE (INCL. DESCRIPT. OF 9-06 CHANGES)</u>	<u>STD</u>	<u>DATE</u>
ma87.dgn	<b>STANDARD BLOCKED-OUT W-BEAM GUARDRAIL (STRONG POST) POST AND BLOCKOUT DETAILS</b> Added note for GR-11 option in place of 50' rail with washers.	GR-2,2A	Rev. 9-06
ma88.dgn	<b>GUARDRAIL AT LOW-FILL CULVERTS</b> Revised depth of fill above culvert to 4'-0".	GR-10	Rev. 9-06
ma89.dgn	<b>BRAKEAWAY CABLE TERMINAL 4' FLARE</b> Revised dimensions.	GR-7	Rev. 9-06
ma91.dgn	STANDARD W-BEAM GUARDRAIL (WEAK POST SYSTEM)	GR-8,8A,8B,8C	Rev. 1-04
ma92.dgn	<b>W-BEAM GUARDRAIL INSTALLATION CRITERIA</b> Revised tables.	GR-INS	Rev. 9-06
ma93.dgn	<b>W-BEAM GUARDRAIL AND MEDIAN BARRIER INSTALLATION CRITERIA</b> Revised transition length for rail height adjustment.	GR-INS	Rev. 9-06
ma94.dgn	<b>BLOCKED-OUT W-BEAM BARRIER</b> Guardrail height changed to match GR-2 and added note for GR-11 option.	MB-3	Rev. 9-06
ma95.dgn	STANDARD W-BEAM MEDIAN BARRIER (WEAK POST SYSTEM)	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	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	MB-INS	Rev. 7-05
ma105_02.dgn	PRECAST CONCRETE MEDIAN BARRIER POSITIVE CONNECTION OPTIONS	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. 2-06
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

<u>NUMBER</u>	<u>TITLE (INCL. DESCRIPT. OF 9-06 CHANGES)</u>	<u>STD</u>	<u>DATE</u>
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
<b>ma128.dgn</b>	<b>LIGHTING POLE FOUNDATION INSTALLATION DETAILS; SIGNAL POLE FOUNDATION INSTALLATION DETAILS Corrected mislabeled dimensions.</b>	<b>LF-1, PF-1</b>	<b>Rev. 9-06</b>
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. 2-06
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. 2-06
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	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

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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	OSS-1	Rev. 2-06
ma155.dgn	TYPICAL DETAILS FOR OVERHEAD SIGN STRUCTURES	OSS-1	Rev. 5-04
ma156.dgn	TYPICAL DETAILS FOR SIGN STRUCTURES	SSP-VA SSP-VIA	Rev. 7-05
ma157.dgn	TYPICAL DETAILS FOR OVERHEAD SIGN STRUCTURES AND SIGN PANEL DESIGN	OSS-1 SPD-1	Rev. 2-06
ma158.dgn	15" PIPE TEE SECTION DROP INLET	DI-9	New 7-04
<b>ma159.dgn</b>	<b>STANDARD SOLID CONCRETE RAISED MEDIAN STRIP</b> <b>Revised note for the use of 4" and 6" curb.</b>	<b>MS-1</b> <b>MS-1A</b>	<b>Rev. 9-06</b>
ma160.dgn	STANDARD FENCE WOVEN WIRE FABRIC STANDARD FENCE BARBED WIRE	FE-W1,W2 FE-B	New 7-04
<b>ma161.dgn</b>	<b>CONCRETE GRAVITY RETAINING WALLS</b> <b>Clarified porous backfill location.</b>	<b>RW-2</b> <b>RW-3</b>	<b>Rev. 9-06</b>
ma162.dgn	SANITARY SEWER MANHOLE WATER AND SANITARY SEWER FACILITIES	SMH-1	New 7-05
ma163.dgn	MULTIGRATE DROP INLET	DI-12, 12A	Rev. 2-06
ma164.dgn	MULTIGRATE DROP INLET	DI-12B, 12C	Rev. 2-06
ma165.dgn	SHOULDER SLOT INLET	DI-13	New 7-05
ma166_1.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05
ma166_2.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05
ma166_3.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05
ma166_4.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05

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ma166_5.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05
ma166_6.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05
ma166_7.dgn	ALLOWABLE PIPE CRITERIA	PC-1	New 7-05
<b>ma166_8.dgn</b>	<b>ALLOWABLE PIPE CRITERIA</b> <b>Revised notes.</b>	<b>PC-1</b>	<b>Rev. 9-06</b>
<b>ma166_9.dgn</b>	<b>ALLOWABLE PIPE CRITERIA</b> <b>Revised notes.</b>	<b>PC-1</b>	<b>Rev. 9-06</b>
ma167.dgn	TYPICAL BRIDGE PARAPET SIGN SIGNAL POLE FOUNDATION	BSS-1 PF-1	Rev. 2-06
ma168.dgn	TYPICAL PAVEMENT MARKINGS FOR BICYCLE LANE	PM-6	Rev. 2-06
ma169.dgn	PEDESTRIAN SIGNAL INDICATION DETAILS	S-5,6,7,8,9	New 7-05
ma170.dgn	CONCRETE MEDIAN BARRIER DROP INLET	DI-14	New 2-06
ma171.dgn	STORAGE FACILITY FOR NUCLEAR GAUGE	NG-1	New 2-06
ma178.dgn	TYPICAL PAVEMENT MARKING DETAILS	PM-1 PM-2	New 2-06
<b>ma179.dgn</b>	<b>STANDARD 6" CURB</b> <b>COMBINATION 6" CURB AND GUTTER</b> <b>Revised notes for use of 4" and 6" curb.</b>	<b>CG-2</b> <b>CG-6</b>	<b>New 9-06</b>
<b>ma180.dgn</b>	<b>STANDARD 4" CURB</b> <b>COMBINATION 4" CURB AND GUTTER</b> <b>Revised notes for use of 4" and 6" curb.</b>	<b>CG-3</b> <b>CG-7</b>	<b>New 9-06</b>
<b>ma181.dgn</b>	<b>ASPHALT CONCRETE CURB AND MEDIAN</b> <b>Revised notes for use of 4" and 6" curb.</b>	<b>MC-3, 3A</b>	<b>New 9-06</b>
<b>ma182.dgn</b>	<b>CONCRETE MEDIAN CURB</b> <b>Revised notes for use of 4" and 6" curb.</b>	<b>MC-1</b>	<b>New 9-06</b>
<b>ma183.dgn</b>	<b>STANDARD RAISED GRASS MEDIAN STRIP</b> <b>STD. RAISED ASPHALT MEDIAN WITH CONCRETE CURB</b> <b>Revised notes for use of 4" and 6" curb.</b>	<b>MS-2</b> <b>MS-4</b>	<b>New 9-06</b>
<b>ma186.dgn</b>	<b>DRAINAGE STRUCTURE BEDDING</b> <b>New standard for the bedding of drainage structures.</b>	<b>DSB-1</b>	<b>New 9-06</b>
<b>ma187.dgn</b>	<b>PAVEMENT WIDENING</b> <b>New standard for asphalt pavement widening.</b>	<b>WP-2</b>	<b>New 9-06</b>
<b>ma188.dgn</b>	<b>CENTERLINE RUMBLE STRIPS</b> <b>New standard for centerline rumble strips.</b>	<b>RS-3</b>	<b>New 9-06</b>
<b>ma189.dgn</b>	<b>TRANSVERSE PAVEMENT TIE-IN</b> <b>New standard for pavement planing tie-ins.</b>	<b>TPT-1</b>	<b>New 9-06</b>

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<b>msd414_1.dgn</b>	<b>EROSION CONTROL Replaced silt fence at culvert inlet with a check dam.</b>	<b>EC-4 EC-5</b>	<b>Rev. 9-06</b>
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
<b>msd1165a.dgn</b>	<b>TRAFFIC BARRIER SERVICE CONCRETE PARAPET (DOUBLE FACED FOR TEMPORARY INSTALLATION ON BRIDGE DECK EXTERIOR) Revised Sheet 1 of 3 and 2 of 3.</b>	<b>MB-11A</b>	<b>Rev. 9-06</b>
<b>msd1165b.dgn</b>	<b>TRAFFIC BARRIER SERVICE CONCRETE PARAPET (DOUBLE FACED FOR TEMPORARY INSTALLATION ON ROADWAY) New staking detail for pavement.</b>	<b>MB-11A</b>	<b>New 9-06</b>
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	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-DR	Rev. 3/03

<b><u>NUMBER</u></b>	<b><u>(SWM) DETAILS TITLE (INCL. DESCRIPT. OF 9-06 CHANGES)</u></b>	<b><u>STD</u></b>	<b><u>DATE</u></b>
<b>msd2390.dgn</b>	<b>ALTERNATE BREAKAWAY CABLE TERMINAL NO FLARE Revised dimensions.</b>	<b>GR-9</b>	<b>Rev. 9-06</b>
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
<b>minsertr</b>	<b>Current Insertable Sheet List</b>		<b>Rev. 9-06</b>