

**2001 Road and Bridge Standards
Volume 1I Table of Contents**

Section 1000

Standard	Page	Title	Revised	Revised	Revised	Revised
BCB-DT	1001.01	Oversize Box Culvert Standard Details				
	1001.02	Oversize Box Culvert Standard Details				
BCB-02	1001.03	0 to 2 FT. Fills				
BCB-05	1001.04	2 to 5 FT. Fills				
BCB-10	1001.05	5 to 10 FT. Fills				
BCB-15	1001.06	10 to15 FT. Fills				
BCB-20	1001.07	15 to 20 FT. Fills				
BCB-25	1001.08	20 to 25 FT. Fills				
BCB-30	1001.09	25 to 30 FT. Fills				
BCB-35	1001.10	30 to 35 FT. Fills				
BCB-40	1001.11	35 to 40 FT. Fills				
BCB-45	1001.12	40 to 45 FT. Fills				
BCB-50	1001.13	45 to 50 FT. Fills				
BCS-DT	1002.01	Single Box Culvert Standard Details				
	1002.02	Single Box Culvert Standard Details				
BCS-02	1002.03	0 to 2 FT. Fills				
	1002.04	0 to 2 FT. Fills				
BCS-05	1002.05	2 to 5 FT. Fills				
	1002.06	2 to 5 FT. Fills				
BCS-10	1002.07	5 to 10 FT. Fills				
	1002.08	5 to 10 FT. Fills				
BCS-15	1002.09	10 to15 FT. Fills				
	1002.10	10 to15 FT. Fills				
BCS-20	1002.11	15 to 20 FT. Fills				
	1002.12	15 to 20 FT. Fills				
BCS-25	1002.13	20 to 25 FT. Fills				
	1002.14	20 to 25 FT. Fills				
BCS-30	1002.15	25 to 30 FT. Fills				
	1002.16	25 to 30 FT. Fills				
BCS-35	1002.17	30 to 35 FT. Fills				
	1002.18	30 to 35 FT. Fills				
BCS-40	1002.19	35 to 40 FT. Fills				
	1002.20	35 to 40 FT. Fills				
BCS-45	1002.21	40 to 45 FT. Fills				
	1002.22	40 to 45 FT. Fills				
BCS-50	1002.23	45 to 50 FT. Fills				
	1002.24	45 to 50 FT. Fills				
BCD-DT	1003.01	Double Box Culvert Standard Details				
	1003.02	Double Box Culvert Standard Details				
	1003.03	Double Box Culvert Standard Details				
BCD-02	1003.04	0 to 2 FT. Fills				
	1003.05	0 to 2 FT. Fills				
BCD-05	1003.06	2 to 5 FT. Fills				
	1003.07	2 to 5 FT. Fills				
BCD-10	1003.08	5 to 10 FT. Fills				
	1003.09	5 to 10 FT. Fills				
BCD-15	1003.10	10 to15 FT. Fills				

Standard	Page	Title	Revised	Revised	Revised	Revised
BCD-15	1003.11	10 to15 FT. Fills				
BCD-20	1003.12	15 to 20 FT. Fills				
	1003.13	15 to 20 FT. Fills				
BCD-25	1003.14	20 to 25 FT. Fills				
	1003.15	20 to 25 FT. Fills				
BCD-30	1003.16	25 to 30 FT. Fills				
	1003.17	25 to 30 FT. Fills				
BCD-35	1003.18	30 to 35 FT. Fills				
	1003.19	30 to 35 FT. Fills				
BCD-40	1003.20	35 to 40 FT. Fills				
	1003.21	35 to 40 FT. Fills				
BCD-45	1003.22	40 to 45 FT. Fills				
	1003.23	40 to 45 FT. Fills				
BCD-50	1003.24	45to 50 FT. Fills				
	1003.25	45to 50 FT. Fills				
BCT-DT	1004.01	Triple Box Culvert Standard Details				
	1004.02	Triple Box Culvert Standard Details				
	1004.03	Triple Box Culvert Standard Details				
BCT-02	1004.04	0 to 2 FT. Fills				
	1004.05	0 to 2 FT. Fills				
BCT-05	1004.06	2 to 5 FT. Fills				
	1004.07	2 to 5 FT. Fills				
BCT-10	1004.08	5 to 10 FT. Fills				
	1004.09	5 to 10 FT. Fills				
BCT-15	1004.10	10 to15 FT. Fills				
	1004.11	10 to15 FT. Fills				
BCT-20	1004.12	15 to 20 FT. Fills				
	1004.13	15 to 20 FT. Fills				
BCT-25	1004.14	20 to 25 FT. Fills				
	1004.15	20 to 25 FT. Fills				
BCT-30	1004.16	25 to 30 FT. Fills				
	1004.17	25 to 30 FT. Fills				
BCT-35	1004.18	30 to 35 FT. Fills				
	1004.19	30 to 35 FT. Fills				
BCT-40	1004.20	35 to 40 FT. Fills				
	1004.21	35 to 40 FT. Fills				
BCT-45	1004.22	40 to 45 FT. Fills				
	1004.23	40 to 45 FT. Fills				
BCT-50	1004.24	45to 50 FT. Fills				
	1004.25	45to 50 FT. Fills				
BCQ-DT	1005.01	Quadruple Box Culvert Standard Details				
	1005.02	Quadruple Box Culvert Standard Details				
	1005.03	Quadruple Box Culvert Standard Details				
BCQ-02	1005.04	0 to 2 FT. Fills				
	1005.05	0 to 2 FT. Fills				
BCQ-05	1005.06	2 to 5 FT. Fills				
	1005.07	2 to 5 FT. Fills				
BCQ-10	1005.08	5 to 10 FT. Fills				
	1005.09	5 to 10 FT. Fills				
BCQ-15	1005.10	10 to15 FT. Fills				

Standard	Page	Title	Revised	Revised	Revised	Revised
BCQ-15	1005.11	10 to 15 FT. Fills				
BCQ-20	1005.12	15 to 20 FT. Fills				
	1005.13	15 to 20 FT. Fills				
BCQ-25	1005.14	20 to 25 FT. Fills				
	1005.15	20 to 25 FT. Fills				
BCQ-30	1005.16	25 to 30 FT. Fills				
	1005.17	25 to 30 FT. Fills				
BCQ-35	1005.18	30 to 35 FT. Fills				
	1005.19	30 to 35 FT. Fills				
BCQ-40	1005.20	35 to 40 FT. Fills				
	1005.21	35 to 40 FT. Fills				
BCQ-45	1005.22	40 to 45 FT. Fills				
	1005.23	40 to 45 FT. Fills				
BCQ-50	1005.24	45 to 50 FT. Fills				
	1005.25	45 to 50 FT. Fills				
BCW-11	1006.01	Wing Details 1½: 1 Fill Slope-Type I				
	1006.02	Wing Details 1½: 1 Fill Slope-Type I				
	1006.03	Wing Details 1½: 1 Fill Slope-Type I				
	1006.04	Wing Details 1½: 1 Fill Slope-Type I				
	1006.05	Wing Details 1½: 1 Fill Slope-Type I				
	1006.06	Wing Details 1½: 1 Fill Slope-Type I				
	1006.07	Wing Details 1½: 1 Fill Slope-Type I				
BCW-12	1006.08	Wing Details 1 ½: 1 Fill Slope-Type II				
	1006.09	Wing Details 1 ½: 1 Fill Slope-Type II				
	1006.10	Wing Details 1 ½: 1 Fill Slope-Type II				
	1006.11	Wing Details 1 ½: 1 Fill Slope-Type II				
	1006.12	Wing Details 1 ½: 1 Fill Slope-Type II				
	1006.13	Wing Details 1 ½: 1 Fill Slope-Type II				
	1006.14	Wing Details 1 ½: 1 Fill Slope-Type II				
BCW-21	1006.15	Wing Details 2:1 Fill Slope-Type I				
	1006.16	Wing Details 2:1 Fill Slope-Type I				
	1006.17	Wing Details 2:1 Fill Slope-Type I				
	1006.18	Wing Details 2:1 Fill Slope-Type I				
	1006.19	Wing Details 2:1 Fill Slope-Type I				
	1006.20	Wing Details 2:1 Fill Slope-Type I				
	1006.21	Wing Details 2:1 Fill Slope-Type I				
BCW-22	1006.22	Wing Details 2:1 Fill Slope-Type II				
	1006.23	Wing Details 2:1 Fill Slope-Type II				
	1006.24	Wing Details 2:1 Fill Slope-Type II				
	1006.25	Wing Details 2:1 Fill Slope-Type II				
	1006.26	Wing Details 2:1 Fill Slope-Type II				
	1006.27	Wing Details 2:1 Fill Slope-Type II				
	1006.28	Wing Details 2:1 Fill Slope-Type II				
BCE-01	1007.01	Modifications to Existing Box				
	1007.02	Height Transitions				
	1007.03	Wall Transitions				
	1007.04	Wall Transitions				

Section 1100

Standard	Page	Title	Revised	Revised	Revised	Revised
BDP-3	1101.01	Placement Details				
	1101.02	Date Plate Details				

Section 1200

Standard	Page	Title	Revised	Revised	Revised	Revised
L-3	1201.01	Typical Method for Bench Planting on Rock Cut Section				
L-3A	1201.02	Typical Method for Horizontal Grooving Cut Slopes				
L-4	1201.03	Method of Planting Forest Tree Seedlings				
L-5	1201.04	Planting Details				
	1201.05	Planting Details				
	1201.06	Slope Planting Details				
L-6	1201.07	Fertilizer and Mulch				
TW-1	1201.08	Standard Tree Walls and Tree Wells				
PT-1	1201.09	Precast Concrete Picnic Table				
RW-1	1201.10	Dry Rubble Retaining Walls				
RW-1A	1201.11	Mortar Rubble Retaining Wall-Level Backfill				
RW-1B	1201.12	Mortar Rubble Retaining Wall-Loaded				

Section 1300

Standard	Page	Title	Revised	Revised	Revised	Revised
CF-1	1301.01	Controller Cabinet Foundation and Conduit Placement Details				
CF-2	1301.02	Control Center Cabinet Foundation and Conduit Placement Details				
CF-3	1301.03	Controller Cabinet Foundation and Conduit Placement Details				
CTE-1	1301.04	Above Ground Cable Terminal Enclosure and Conduit Placement Details				
CTE-2,3	1301.05	Above Ground and Aerial Cable Terminal Enclosure Details				
LP-1,LP-2	1301.06	Lighting Pole Details Conventional and Offset				
LP-3	1301.07	Lighting Pole Details High Mast				
MP-1	1301.08	Signal Pole Details (Mast Arm and Combination Luminaire Mast Arm Pole)				
MP-2	1301.09	Signal Pole Details (Strain and Combination Luminaire Strain Pole)				

Standard	Page	Title	Revised	Revised	Revised	Revised
LF-1	1301.10	Lighting Pole Foundation Installation Details				
PF-1	1301.11	Signal Pole Foundation Installation Details	7/05			
PF-2,3	1301.12	Pedestal Pole and Foundation Details				
SW-1	1301.13	Signal Head Mounting Details Span Wire				
SW-2	1301.14	Signal Head Mounting Details Span Wire				
SM-3	1301.15	Signal Head Mounting Details-Mast Arm				
SMB-1,2 or 3	1301.16	Signal Head Mounting Details-Pole and Top Bracket				
TA-1	1301.17	Tether Wire Details				
SMD-1,2	1301.18	Sign Mounting Details				
FB-1	1301.19	Flashing Beacon Installation Details				
FB-2	1301.20	Flashing Beacon Installation Details				
FB-3	1301.21	Flashing Beacon Installation Details				
WD-1	1301.22	Steel Pole Wiring and Rigging Details				
WD-2	1301.23	Wood Pole Wiring and Rigging Details				
WD-3	1301.24	Bridal Span Wiring and Rigging Details				
WD-4	1301.25	Pedestrian Pole Wiring Details				
WD-5	1301.26	Interconnect (Impulse) Cable Installation Details				
PA-1,2,3	1301.27	Pedestrian Actuation Details				
SP-1,2,3,4	1301.28	Pedestrian Signal Indication Details	VOID 7/05			
SP-5,6,7,8,9	1301.28	Pedestrian Signal Indication Details	NEW 7/05			
ITS-1	1301.29	Illuminated Traffic Control Sign				
SE-1	1301.30	Electrical Service Details Signal Installations	2/06			
	1301.31	Electrical Service Details Signal Installations	2/06			
SE-2	1301.32	Electrical Service Details Signal Installations	2/06			
SE-3	1301.33	Electrical Service Details Signal Installations	2/06			
	1301.34	Electrical Service Details Signal Installations	2/06			
SE-4	1301.35	Electrical Service Details Signal Installations	2/06			
SE-5	1301.36	Electrical Service Details Signal Installations	2/06			
SE-6	1301.37	Electrical Service Details Sign and Lighting Installations	2/06			
SE-7	1301.38	Electrical Service Details Sign and Lighting Installations	2/06			
SE-8	1301.39	Electrical Service Details Sign and Lighting Installations	2/06			
SE-9	1301.40	Electrical Service Details Sign and Lighting Installations	2/06			
CCW-1	1301.41	Control Center Wiring Details				
	1301.42	Control Center Wiring Details				
	1301.43	Control Center Wiring Details				
	1302.44	Control Center Wiring Details				
TD-1A,B,C	1301.45	Loop Detector Installation Details				
	1301.46	Loop Detector Installation Details				
TD-2	1301.47	Magnetic Detector Installation Details				
JB-1A,2A,3A,4 A and 5A	1301.48	Junction Box				

Standard	Page	Title	Revised	Revised	Revised	Revised
JB-1A,2A,3A,4 A and 5A	1301.49	Junction Box				
JB-1B,2B,3B,4 B and 5B	1301.50	Junction Box	7/01			
JB-1C,2C,3C,4 and 5C	1301.51	Junction Box	7/01			
JB-1D	1301.52	Junction Box				
ECI-1, ECI-2	1301.53	Installation of Electrical Conduit and Conductor Cable (Underground Installation)				
TS-1	1301.54	Typical One-Way Bridge Temporary Signal Installation				
WSP-1	1301.55	Typical Details for Standard Wood Post Structure Types				
	1301.56	Typical Details for Standard Wood Post Structure Types				
	1301.57	Typical Details for Standard Wood Post Structure Types				
	1302.58	Typical Details for Standard Wood Post Structure Types				
SSP-V A	1301.59	Typical Details for Type V A Sign Structures				
	1301.60	Typical Details for Type V A Sign Structures				
	1301.61	Typical Details for Type V A Sign Structures				
	1301.62	Typical Details for Type V A Sign Structures				
	1301.63	Typical Details for Type V A Sign Structures	7/04	7/05		
	1301.64	Typical Details for Type V A Sign Structures				
	1301.65	Typical Details for Type V A Sign Structures				
1301.66	Alternate Details for Type V A Sign Structures					
SSP-VI A	1301.67	Typical Details for Type VI A Interstate Sign Structures	7/04	7/05		
	1301.68	Typical Details for Type VI A Interstate Sign Structures				
	1301.69	Typical Details for Type VI A Interstate Sign Structures				
	1301.70	Typical VI A Foundation Details				
	1301.71	Alternate Details for Type VI A Sign Structures				
OSS-1	1301.72	Typical Details for Overhead Sign Structures	1/04	7/04	7/05	2/06
	1301.73	Typical Details for Overhead Sign Structures	1/04	7/04	7/05	
	1301.74	Typical Details for Overhead Sign Structures	1/04	7/04		
	1301.75	Typical Details for Overhead Sign Structures	1/04	7/04		
	1301.76	Typical Details for Overhead Sign Structures	7/04	7/05		
BSS-1	1301.77	Typical Bridge Parapet Electrical Details				
	1301.78	Typical Bridge Parapet Sign Mounting Details	7/05	2/06		
SPD-1	1301.79	Sign Panel Design	7/04	7/05	2/06	
	1301.80	Sign Panel Design				
	1301.81	Alternate Panel Design				
	1301.82	Alternate Panel Design				

Standard	Page	Title	Revised	Revised	Revised	Revised
MM-1, USP-1	1301.83	Typical Details for Milepost Markers & U-Type Steel Post Structures				
ED-1,ED-2	1301.84	Typical Details for Standard and Special Road Edge Delineators				
ED-3	1301.85	Typical Details for Interstate Road Edge Delineators				
PM-1	1301.86	Typical Pavement Marking Details	7/05	2/06		
PM-2	1301.87	Typical Pavement Marking Details	2/06			
PM-3	1301.88	Typical Pavement Marking for Unsignalized Intersections				
PM-4	1301.89	Typical Pavement Marking for Signalized Intersections				
PM-5	1301.90	Typical Pavement Marking Left Turn Pavement Marked Median				
PM-6	1301.91	Typical Pavement Marking For Bicycle Lane	7/05			
PM-7	1301.92	Typical Pavement Marking Railroad-Highway Grade Crossing				
PM-8	1301.93	Typical Pavement Marker Location Details				
PM-9	1301.94	Typical Pavement Marker Location Details				
PCS-1	1301.95	Procedures for Calculating Size of Wood Posts For Permanent & Construction Signs				
SPCS-1	1301.96	Sample of Procedure For Calculating Size Of Wood Posts				
CSI-1	1301.97	Details For Calculating Size Of Wood Posts For Construction & Permanent Signs Installed At 7'-0" Minimum Mounting Heights On Level Ground				
	1301.98	Details For Calculating Size Of Wood Posts For Construction & Permanent Signs Installed At 7'-0" Minimum Mounting Heights On 1 1/2:1 Slope				
	1301.99	Details For Calculating Size Of Wood Posts For Construction & Permanent Signs Installed At 7'-0" Minimum Mounting Heights On 1 1/2:1 Slope				
	1301.100	Details For Calculating Size Of Wood Posts For Construction & Permanent Signs Installed At 7'-0" Minimum Mounting Heights On 2:1 Slope				
	1301.101	Details For Calculating Size Of Wood Posts For Construction & Permanent Signs Installed At 7'-0" Minimum Mounting Heights On 2:1 Slope				
PS1-1	1301.102	Details For Calculating Size Of Wood Posts For Permanent Signs Installed At 5'-0" Minimum Mounting Heights On Level Ground				
	1301.103	Details For Calculating Size Of Wood Posts For Permanent Signs Installed At 5'-0" Minimum Mounting Heights On 1 1/2:1 Slope				

Standard	Page	Title	Revised	Revised	Revised	Revised
PS1-1	1301.104	Details For Calculating Size Of Wood Posts For Permanent Signs Installed At 5'-0" Minimum Mounting Heights On 1 1/2:1 Slope				
	1301.105	Details For Calculating Size Of Wood Posts For Permanent Signs Installed At 5'-0" Minimum Mounting Heights On 2:1 Slope				
	1301.106	Details For Calculating Size Of Wood Posts For Permanent Signs Installed At 5'-0" Minimum Mounting Heights On 2:1 Slope				

Section 1400

Standard	Page	Title	Revised	Revised	Revised	Revised
UB-1	1401.01	Utility Bedding and Protection Water and Sanitary Sewer Facilities				
RB-1	1402.01	Reaction Blocking Water and Sanitary Sewer Facilities				
	1402.02	Reaction Blocking Water and Sanitary Sewer Facilities				
	1402.03	Reaction Blocking Water and Sanitary Sewer Facilities				
VO-1	1403.01	Vertical Offset Water and Sanitary Sewer Facilities				
EP-1	1404.01	Concrete or Steel Encasement Pipe				
LD-1	1405.01	Leak Detector				
VB-1	1406.01	Valve Box and Valve Manhole Water and Sanitary Sewer Facilities				
VM-1,VB-1	1406.02	Valve Box and Valve Manhole Water and Sanitary Sewer Facilities				
FH-1	1407.01	Fire Hydrant				
WM-1	1408.01	Water Meter and Box Water Service Lines				
BOV-1	1409.01	Blow-Off Valve and Box Water and Sanitary Sewer Facilities				
ARV-1	1410.01	Air Release Valve and Box Water and Sanitary Sewer Facilities				
SMH-1	1411.01	Sanitary Sewer Manholes				
	1411.02	Sanitary Sewer Manholes	7/05			
WF & C-1,F & C-1	1412.01	Water and Sanitary Sewer Facilities				
SCO-1	1413.01	Sewer Cleanout				