# Appendix C

## Drawings of BMPs

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NOTE:
ROOTED, LEAFED CONDITION OF THE LIVING PLANT MATERIAL IS NOT REPRESENTATIVE OF THE TIME OF INSTALLATION

TYPICAL BRUSHPACKING

COVER BRUSHLAYER IMMEDIATELY WITH 6” OF FILL SOIL, WATER AND COMPACT ACCORDING TO SPECIFICATIONS

GROWING TIPS SHALL PROTRUDE FROM THE SLOPE FACE

AS SLOPE IS CONSTRUCTED, FILL AND COMPACT THE SOIL IN 6”-8” LIFTS

TYPICAL BRUSHLAYERING WITH SLOPE CONSTRUCTION

SOURCE: SALIX APPLIED EARTH CARE – EROSION DRAW 5.0

BRUSHLAYERING
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

LONGITUDINAL SECTION SHOWING SPACING BETWEEN CHECK DAMS

SECTION ACROSS CHANNEL

CHECK DAM
SECTION A – A

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0

CONSTRUCTION ENTRANCE
NOTES:

1. USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.

2. BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.

3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

SOURCE: SALIX APPLIED EARTH CARE – EROSION DRAW 5.0
NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.
SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0

CURB INLET
SEDIMENT BARRIER
(SANDBAGS)
TYPICAL FILL DIVERSION

TYPICAL TEMPORARY DIVERSION DIKE

NOTES:
1. THE CHANNEL BEHIND THE DIKE SHALL HAVE POSITIVE GRADE TO A STABILIZED OUTLET.
2. THE DIKE SHALL BE ADEQUATELY COMPACTED TO PREVENT FAILURE.
3. THE DIKE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT SEEDING OR RIPRAP.

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0
NOTES:
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)  
2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET. 
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

SOURCE: SALIX APPLIED EARTH CARE - EROSION DRAW 5.0
LONGITUDINAL ANCHOR TRENCH
TERMINAL SLOPE AND CHANNEL ANCHOR TRENCH

ISOMETRIC VIEW

CHECK SLOT AT 25’ INTERVALS
STAKE AT 3’-5’ INTERVALS.

INITIAL CHANNEL ANCHOR TRENCH
INTERMITTENT CHECK SLOT

NOTES:
1. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS SPECIFICATIONS.
2. STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.

SOURCE: SALIX APPLIED EARTH CARE – EROSION DRAW 5.0

EROSION BLANKETS & TURF REINFORCEMENT MATS CHANNEL INSTALLATION
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.

TAMP SOIL OVER MAT/BLANKET

MIN. 4" OVERLAP

6′ SLOPE

2:1 SLOPE

3′ 3′ 12″ 12″ 6″ 1 1/2″ 12″

STAPLES

BERM

4′ 12″

ISOMETRIC VIEW

TYPICAL SLOPE SOIL STABILIZATION

NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0

EROSION BLANKETS & TURF REINFORCEMENT MATS SLOPE INSTALLATION
TYPICAL V-SHAPED CHANNEL CROSS-SECTION

TYPICAL PARABOLIC CHANNEL CROSS-SECTION

TYPICAL TRAPEZOIDAL CHANNEL CROSS-SECTION

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0
NOTES:
1. Design velocities exceeding 2 ft/sec require temporary blankets, mats or similarliners to protect seed and soil until vegetation becomes established.
2. Grass-lined channels with design velocities exceeding 6 ft/sec should includeturf reinforcement mats.

SOURCE: Salix Applied Earthcare – Erosion Draw 5.0
TYPICAL USE OF WILLOW STAKES TO ANCHOR WILLOW WATTLE, STRAW ROLLS, BIA MATS, OR TURF REINFORCEMENT MATS

TYPICAL AREA STAKING 1–3’ APART

MID–SUMMER WATER TABLE

CUT TOP OF STAKE SQUARE

2 TO 5 BUDS SCARS SHALL BE ABOVE THE GROUND. ADDITIONAL LENGTH SHOULD BE REMOVED.

PLANT 80% OF STAKE LENGTH INTO THE GROUND

3/4”–3” DIAMETER

MAKE ANGLED CUT AT BUTT-END, PLANT BUTT-END DOWN

NOTES:
1. HARVEST AND PLANT STAKES DURING THE DORMANT SEASON.
2. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD.
3. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION, USE A PILOT BAR IN FIRM SOILS.
4. SOAK CUTTINGS FOR 24 HOURS (MIN.) PRIOR TO INSTALLATION.
5. TAMPER THE SOIL AROUND THE STAKE.

SOURCE: SALIX APPLIED EARTH CARE – EROSION DRAW 5.0

LIVE STAKING

NOT TO SCALE
THICKNESS ('d') = 1.5 x MAX. ROCK DIAMETER - 6" MIN.

SECTION

0.5 X 'D' MIN.

LENGTH

' D'

WIDTH

ROCK d50
50% SHALL BE LARGER THAN 6" MIN. DIA.

PLAN

NOTES:
1. THE LENGTH AND WIDTH SHALL BE DETERMINED BY THE ENGINEER.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK MINIMUM GRADED GRAVEL LAYER.

OUTLET PROTECTION
ENERGY DISSIPATOR

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0
DESIGN HEIGHT ($H$), WIDTH AND STONE SIZE SHALL BE DETERMINED BY THE ENGINEER

MINIMUM 6” THICK LAYER OF 2” MINIMUM DIAMETER DRAIN ROCK. LARGER STONE SHALL BE USED DEPENDENT UPON GRADIENT, SOIL TYPE, AND DESIGN FLOW.

TYPICAL SECTION

SOURCE: SALIX APPLIED EARTH CARE – EROSION DRAW 5.0
NOTE: A SEDIMENT BASIN IS REQUIRED FOR DISTURBED AREAS GREATER THAN 10 ACRES.
NOTE:
A SEDIMENT BASIN IS REQUIRED FOR DISTURBED AREAS GREATER THAN 10 ACRES.
EMBANKMENT AND SPILLWAY ELEVATION

NOTE:
A SEDIMENT TRAP CAN BE USED FOR DISTURBED AREAS LESS THAN 5 ACRES.
NOTE:
A SEDIMENT TRAP CAN BE USED FOR DISTURBED AREAS LESS THAN 5 ACRES.

VOLUME OF SEDIMENT STORAGE = 3600 CF x NO. OF DISTURBED ACRES
NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0
Incorrect – Do Not layout “perimeter control” silt fences along property lines. All sediment laden runoff will concentrate and overwhelm the system.

Correct – Install J-hooks

Discreet segments of silt fence, installed with J-hooks will be much more effective.

SOURCE: SALIX APPLIED EARTH CARE – EROSION DRAW 5.0
SILT FENCE  
TYPICAL PLACEMENT  
ONE SLOPE

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0

INSTALLATION WITH J–HOOKS INCREASE SILT FENCE EFFICIENCY.
2 SLOPE DIRECTIONS

VALLEY

2 SLOPE DIRECTIONS

SIDE 1

VALLEY

STEP 1 – CONSTRUCT A DAM

2 SLOPE DIRECTIONS

SIDE 1

VALLEY

DAM

STEP 2 – CONSTRUCT SIDE 2

STEP 3 – CONSTRUCT J–HOOKS AS NEEDED

INSTALLATION WITH J–HOOKS WILL INCREASE SILT FENCE EFFICIENCY AND REDUCE EROSION–CAUSING FAILURES.

SILT FENCE

TYPICAL PLACEMENT

TWO SLOPES

SOURCE: SALIX APPLIED EARTHCare – EROSION DRAW 5.0
NOTES
1. THIS IS A CONCEPTUAL DRAWING. THE NUMBER AND SIZE OF PIPES AND OTHER DETAILS WILL VARY DEPENDING ON SPECIFIC SITE CONDITIONS.

2. THE PIPES AND BACKFILL MUST BE CONTAINED WITHIN THE STREAM CHANNEL AS SHOWN ABOVE. DURING THE CONSTRUCTION OF THE APPROACHES AND ACCESS ROADWAY ACROSS THE FLOODPLAIN, UNSTABLE AND UNCONSOLIDATED MATERIALS UNSUITABLE FOR ROADWAYS MAY BE EXCAVATED AND REPLACED WITH RIPRAP, CRUSHED STONE, OR OTHER STABLE ROAD CONSTRUCTION MATERIALS. THIS MAY ONLY BE DONE, HOWEVER, WITH THE FOLLOWING PROVISIONS: (1) THE DISPOSAL OF EXCESS, UNCONSOLIDATED MATERIALS THUS EXCAVATED MUST BE OUTSIDE OF THE FLOODPLAIN AND (2) THE FINISHED SURFACE OF THE COMPLETED ROAD MAY BE NO MORE THAN THREE INCHES (.75") ABOVE THE PRE-CONSTRUCTION SURFACE OF THE FLOODPLAIN AT ANY POINT BEYOND THE TOP OF BANKS.

KY DIVISION OF WATER
LOW-WATER CROSSING
'Tracking' with machinery up and down the slope provides grooves that will catch seed, rainfall and reduce runoff.

**Tracking**

Grooves will catch seed, fertilizer, mulch, rainfall and decrease runoff.

**Contour Furrows**

**Surface Roughening**
WATTLE
(LIVE FASCINE)

NOTES:
1. HARVEST AND INSTALL WATTLE DURING DORMANT SEASON.
2. INSTALL WATTLE ON SLOPE CONTOURS.
3. ALL WORK PROCEEDS FROM THE BOTTOM OF THE SLOPE TO THE TOP.
4. FILL OR PARTIALLY COVER WATTLE WITH SOIL FROM SLOPE OR TRENCH ABOVE.
5. COMPACT AND WORK SOIL INTO COMPLETED WATTLE.

SOURCE: SALIX APPLIED EARTHCARE – EROSION DRAW 5.0