

## TEMPORARY DIVERSION CHANNEL (DC)

### 1. DESCRIPTION:

A TEMPORARY DIVERSION CHANNEL (DC) IS A COMPACTED EARTHEN PERIMETER CONTROL CONSISTING OF A COMPACTED DIKE OR A COMBINATION OF A CHANNEL AND A DIKE, WITH A VEGETATED OR RIP-RAP LINING. IT IS BUILT ALONG THE PERIMETER AND WITHIN THE DISTURBED AREA OF A SITE, EITHER AT THE TOP OR BASE OF A SLOPING DISTURBED ZONE. DIKES ARE ALSO KNOWN AS BERMS, AND CHANNELS ARE REFERRED TO AS DITCHES OR SWALES.

### 2. PURPOSE:

TEMPORARY DIVERSION CHANNELS ARE CONSTRUCTED TO CONTROL THE VELOCITY OR ROUTE (OR BOTH) OF SEDIMENT-LADEN STORMWATER RUNOFF.

WHEN ON THE UPSLOPE SIDE OF A SITE, A TEMPORARY DIVERSION CHANNEL HELPS PREVENT SURFACE RUNOFF FROM ENTERING A DISTURBED CONSTRUCTION AREA, THEREBY IMPROVING WORKING CONDITIONS BY PREVENTING AN INCREASE IN SHEET FLOW RUNOFF TRAVELING ACROSS THE DISTURBED ZONE, WHICH REDUCES EROSION ON THE SITE.

A TEMPORARY DIVERSION CHANNEL CAN ALSO BE LOCATED ON THE DOWNSLOPE SIDE OF A SITE TO DIVERT SEDIMENT-LADEN RUNOFF GENERATED ON-SITE TO A SEDIMENT-TRAPPING DEVICE, PREVENTING SOIL LOSS.

### 3. CONDITION WHERE PRACTICE APPLIES:

THE PLACEMENT OF A TEMPORARY DIVERSION CHANNEL DEPENDS ON THE TOPOGRAPHY OF THE SURROUNDING AREA AT THE CONSTRUCTION SITE. ANOTHER CRITICAL FACTOR IS WHETHER THE GOAL IS TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE OR TO KEEP STORMWATER RUNOFF FROM ENTERING THE SITE.

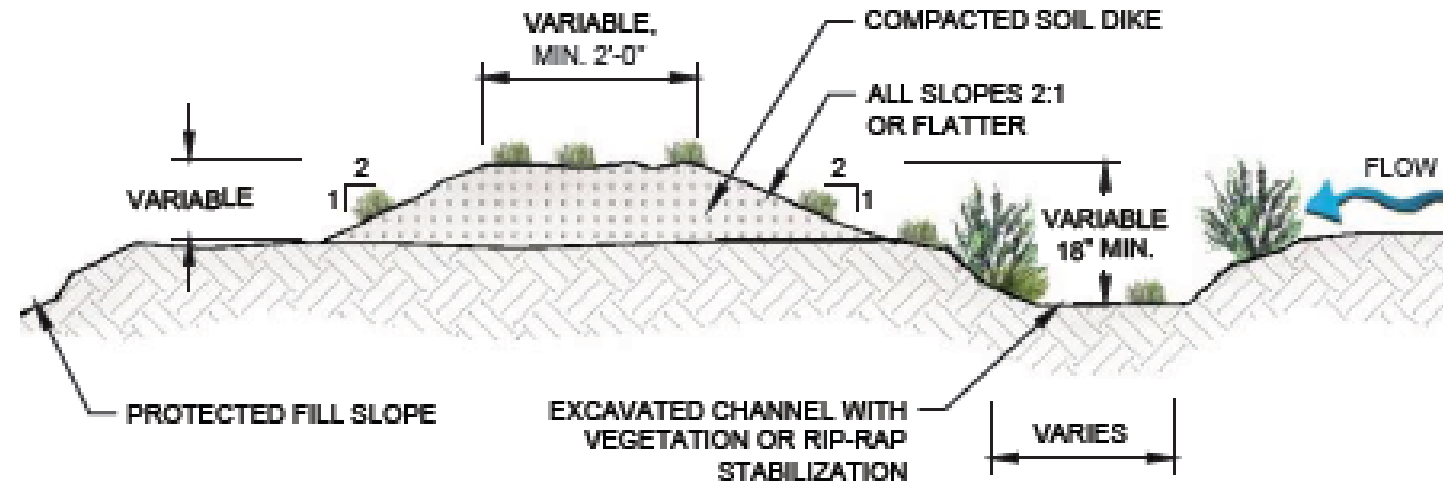
TEMPORARY DIVERSION CHANNELS ARE REQUIRED ALONG THE UPHILL SIDE OF THE AREAS OF LAND DISTURBANCE TO DIVERT STORMWATER RUNOFF AROUND THE DISTURBED AREA UNLESS THE RUNOFF FROM UPSTREAM OFF-SITE BASINS IS RETAINED IN A SEDIMENT BASIN PER CGP 2.2.12. DIVERSIONS MUST RETURN THE FLOW TO ITS ORIGINAL PATH AND VELOCITY AT THE DOWNSTREAM EDGE OF THE SITE PER CGP 2.2.11.

TEMPORARY DIVERSION CHANNELS ARE ALSO APPROPRIATE ALONG THE PERIMETER OF THE SITE DOWNSTREAM FROM LAND DISTURBING ACTIVITIES WHERE THE DESIGN CRITERIA OF STORMWATER SILT FENCE (SWSF) AND COMPOST FILTER SOCK (CFS) ARE EXCEEDED, AND TO CONVEY ON-SITE DRAINAGE TO A TEMPORARY SEDIMENT BASIN TO BE RETAINED ONSITE PER CGP 2.2.12.

### 4. DESIGN SPECIFICATIONS:

THE EPA REQUIRES A DESIGN FOR 2-YEAR STORMS ACCORDING TO CGP 2.2.12, AND CITY ORDINANCE § 14-5-2-12(B)(3) MANDATES A 10-YEAR STORM DESIGN FROM MAY 1 THROUGH OCTOBER 31, IF THE 100-YEAR PEAK FLOW RATE IS 50 CFS OR MORE.

DESIGN CALCULATIONS, INCLUDING FLOW RATES, DEPTH, AND VELOCITY CALCULATIONS, AS WELL AS CONSTRUCTION SPECIFICATIONS, MUST BE SHOWN ON AN ESC PLAN STAMPED BY A NEW MEXICO PROFESSIONAL ENGINEER. RIP-RAP LINING IS REQUIRED WHERE THE DESIGN FLOW VELOCITY EXCEEDS 3 FEET PER SECOND TO PREVENT EXCESSIVE EROSION.

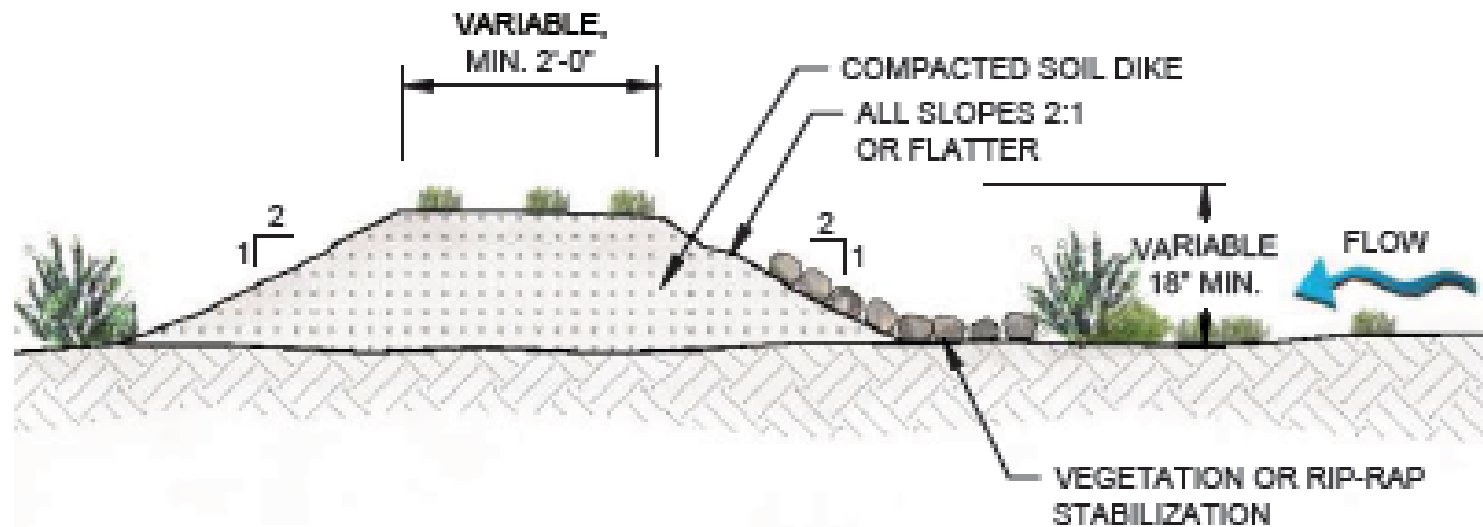


#### NOTES:

1. THE CHANNEL BEHIND THE DIKE SHALL HAVE POSITIVE GRADE TO A STABILIZED OUTLET.
2. THE DIKE SHALL BE ADEQUATELY COMPACTED TO PREVENT FAILURE.

### EARTH DIKE AND EXCAVATED CHANNEL COMBINATION

#### SECTION VIEW



#### NOTES:

1. THE CHANNEL BEHIND THE DIKE SHALL HAVE POSITIVE GRADE TO A STABILIZED OUTLET.
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### EARTH DIKE WITHOUT EXCAVATED CHANNEL

#### SECTION VIEW

### 5. Construction Specifications:

Construct diversion channels and fully stabilize them before any major land disturbance begins. This method ensures the diversion functions effectively as an erosion and sediment control device. The top of the soil dike should be at least 2 feet wide, and the bottom width at ground level should be at least 6 feet. The minimum height for the earth channel should be 18 inches, with extra height added as needed to maintain a minimum of 6 inches freeboard. Side slopes should be no steeper than 2:1. At points where vehicles will cross the channel, ensure the slope does not exceed 3:1, and use gravel rather than soil for the mound. This design extends the channel's durability and reinforces the vehicle crossing point. Before excavating or mound-building, remove all trees, brush, stumps, and other objects in the path of the diversion structure. Till the base of the dike before adding the fill, then compact the soil as necessary to prevent failure.

### 6. Inspection and Maintenance:

A certified inspector must conduct self-inspections every 14 days, immediately after each rainfall of ¼" or more, and at least daily during extended rainfalls to check for erosion or deterioration.

Maintain temporary diversion channels at their original height. Repair any decrease in height caused by settling and fix erosion with riprap immediately. To stay effective, earth channels must be kept compacted at all times.

REVISIONS	CITY OF ALBUQUERQUE
Draft 10/28/2025	CONSTRUCTION STORMWATER QUALITY TEMPORARY DIVERSION CHANNEL (DC)
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