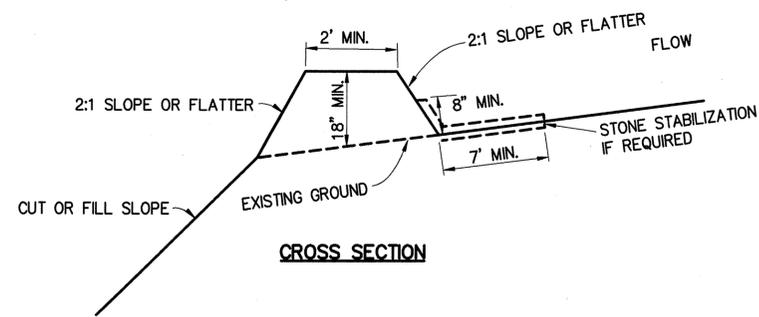
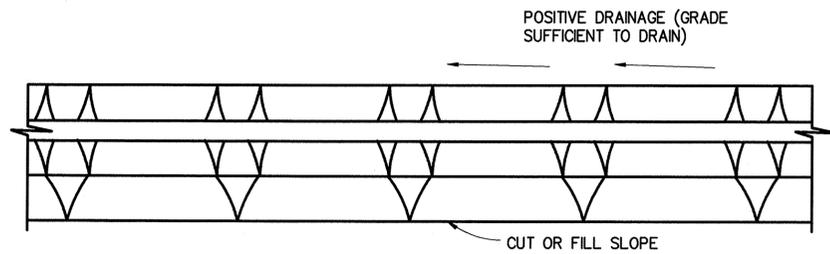


PATH NAME: /E1/PARTS/STD/DGN/STD/785-STD-DIKES-SWALES.DGN LFM 05/22/2012

DIVERSION DIKE

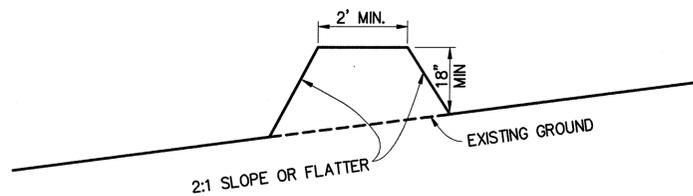


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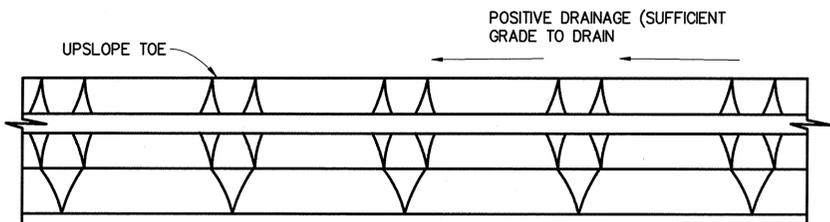


PLAN VIEW

PERIMETER DIKE



CROSS SECTION

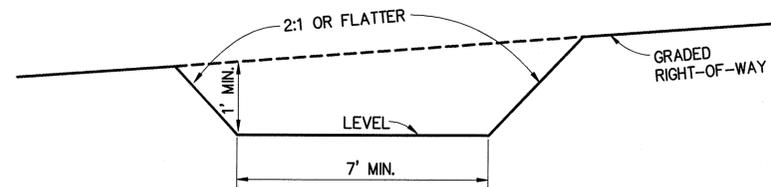


PLAN VIEW

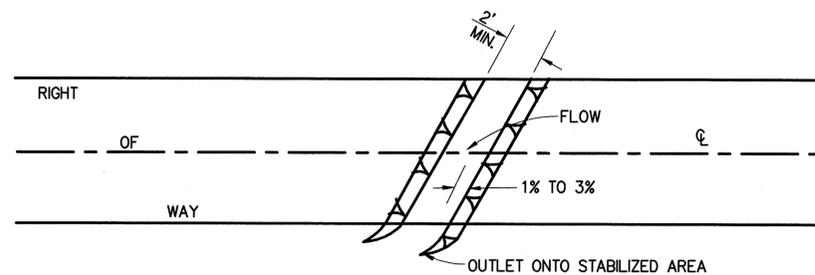
NOTE:

1. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL OUTLET DIRECTLY TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.
2. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR A SEDIMENT BASIN OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.

INTERCEPTOR SWALE



CROSS SECTION

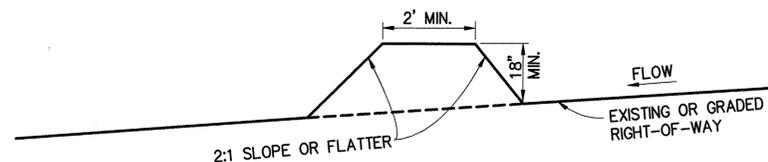


PLAN VIEW

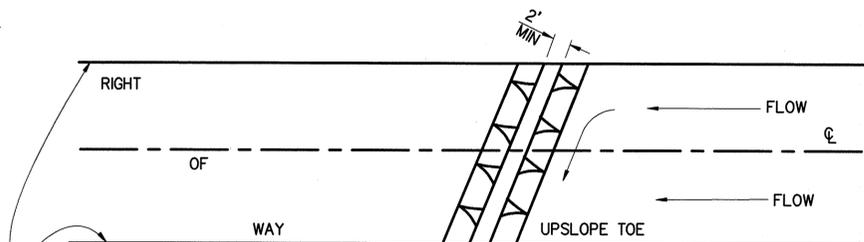
NOTE:

1. AN INTERCEPTOR SWALE SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION.
2. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN.
3. THE ON-SITE LOCATION MAY NEED TO BE ADJUSTED TO MEET FIELD CONDITIONS IN ORDER TO UTILIZE THE MOST SUITABLE OUTLET.

INTERCEPTOR DIKE



CROSS SECTION

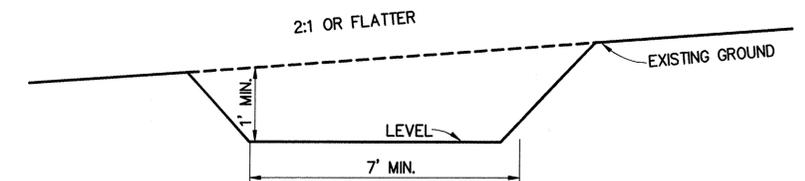


PLAN VIEW

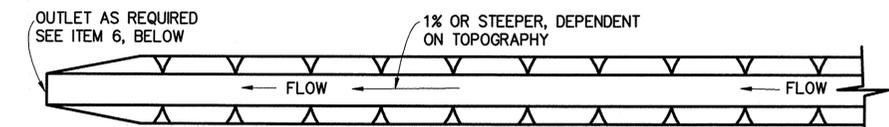
NOTE:

1. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
2. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
3. INTERCEPTOR DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION, RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHEN EITHER THE INTERCEPTOR DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE ADEQUATELY STABILIZED.

PERIMETER SWALE



CROSS SECTION



PLAN VIEW

NOTE:

1. A. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED UPLAND AREA SHALL OUTLET DIRECTLY ONTO AN UNDISTURBED STABILIZED AREA, LEVEL SPREADER OR INTO A GRADE STABILIZATION STRUCTURE.
- B. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE CONVEYED ONTO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR A SEDIMENT BASIN OR WITHIN AN AREA PROTECTED BY ANY OF THESE PRACTICES.

GENERAL NOTES FOR SWALES

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
2. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED SWALE.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
5. SWALES SHALL HAVE A MINIMUM GRADE OF ONE PERCENT AND THE BOTTOM SHALL BE LEVEL.
6. STABILIZATION SHALL BE BY LINING THE FLOW AREA WITH STONE THAT MEETS AASHTO M43 SIZE NO. 2 OR 24 (2-1/2 TO 1-1/2 OR 2-1/2 TO 3/4) IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND PRESSED INTO THE SOIL. THE LINING SHALL EXTEND ACROSS THE BOTTOM AND UP BOTH SIDES OF THE CHANNEL A HEIGHT OF AT LEAST 8 INCHES VERTICALLY ABOVE THE BOTTOM.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED BY THE OWNER.

GENERAL NOTES FOR DIKES

1. ALL DIKES SHALL BE MACHINE COMPACTED TO A STANDARD PROCTOR DENSITY OF 95%.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. STABILIZATION, AS SPECIFIED BY THE PLANS, SHALL BE: (1) IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS FOR GRASSED WATERWAY, AND THE AREA TO BE STABILIZED SHALL BE THE CHANNEL (FLOW AREA); OR (2) THE FLOW AREA SHALL BE LINED WITH STONE THAT MEETS AASHTO M43 SIZE NO. 2 OR 24 (2-1/2 TO 1-1/2 OR 2-1/2 TO 3/4) WHICH IS PLACED IN A 3 INCH THICK LAYER AND PRESSED INTO THE SOIL.
4. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED BY THE OWNER.

STANDARD OBTAINED FROM: USDA-SCS, MD. STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.

[Signature]
CITY ENGINEER

[Signature]
DESIGN MANAGER

CITY OF TULSA, OKLAHOMA
ENGINEERING SERVICES DEPARTMENT

STANDARD DIKES AND SWALES

DATE: OCTOBER 2013

STD. 785

REVISION	BY	DATE