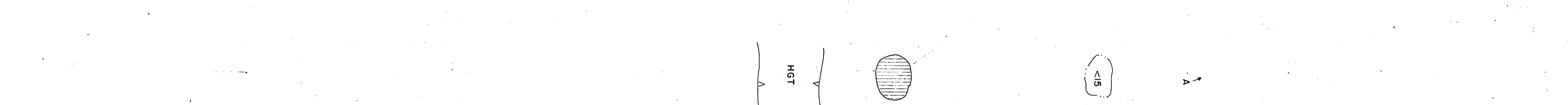
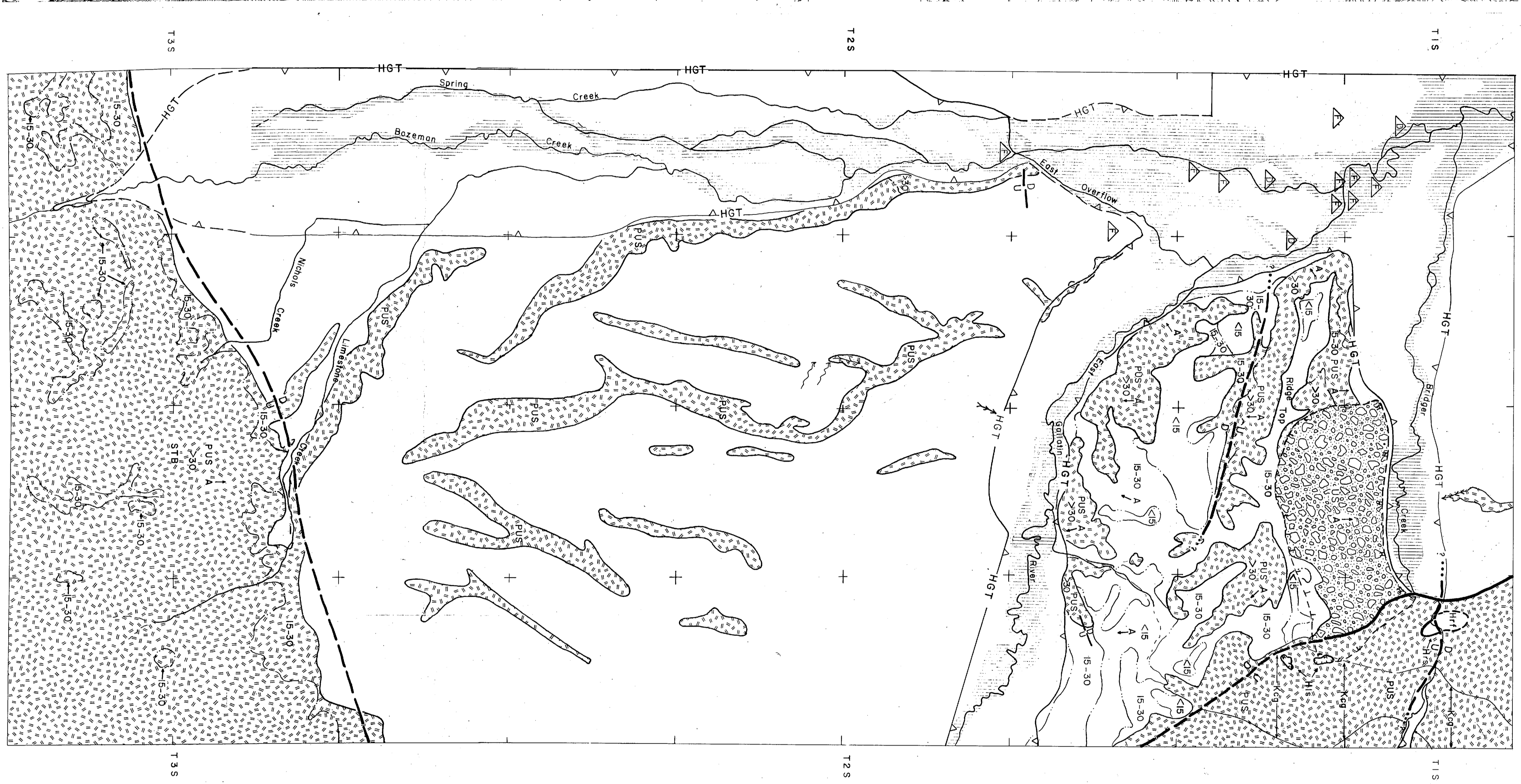
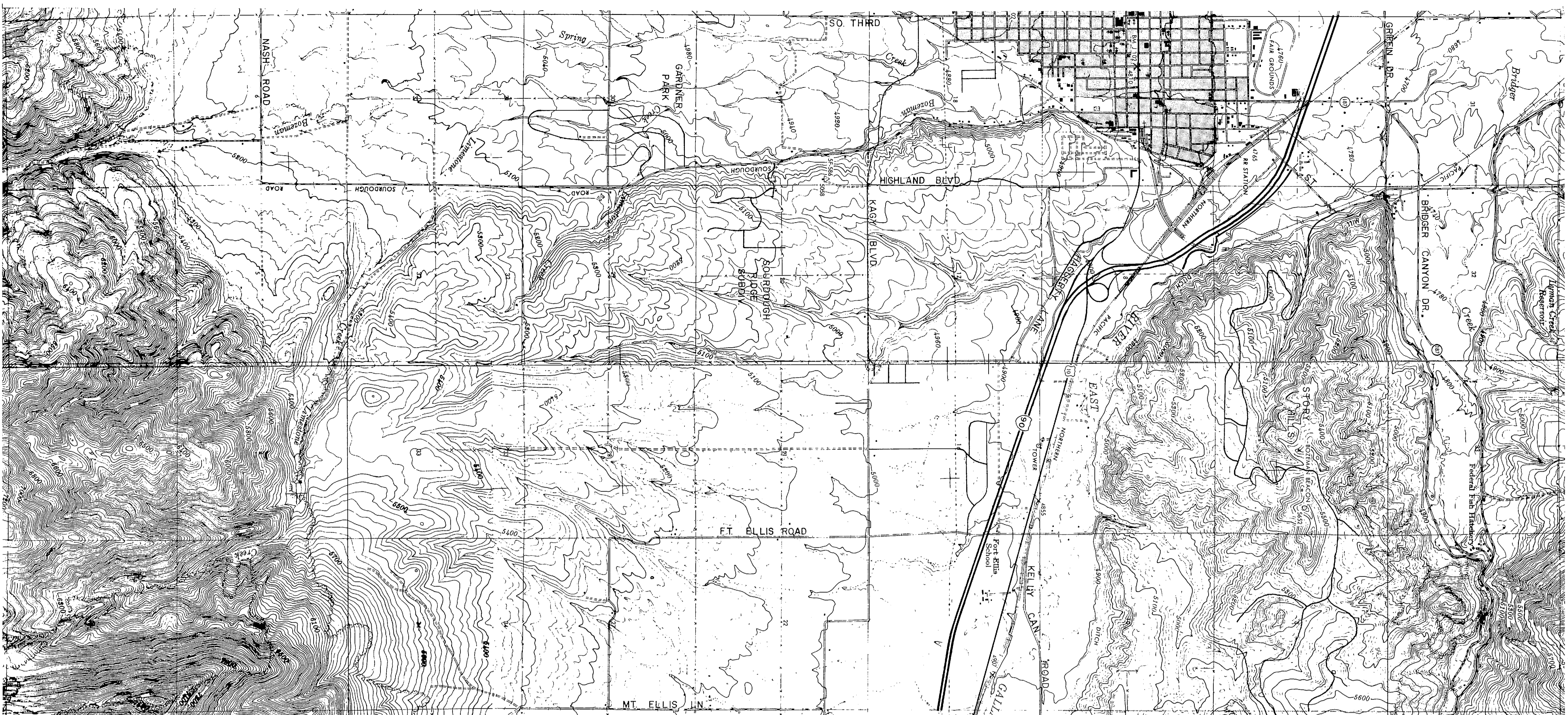


PLATE 6 CONSTRUCTION CONSTRAINTS

Southeast Margin of the Gallatin Valley



Base Map from U.S. Coast and Geodetic Survey
Upper Missouri River Basin Survey, 1947 & 1948
Map Numbers 87, 88, 97, 8 98
Plates Drawn by Earl E. Griffin MSU-1982

EXPLANATION

(Boundaries are approximate; statements are general; specific evaluations require on-site investigation.)

TOPOGRAPHIC

ASPECT: South slopes are dryer, don't retain snow accumulation as long as do north slopes and provide the proper erosion more for longer periods, accumulate more ground water (a factor in slope loading and reduction of shear strength) and generally incur higher roadway maintenance costs during the winter.

ANGLE: Slopes greater than 15% are limiting to septic drainfields (certain geologic and soil conditions may allow installation on slopes up to 25% if carefully assessed and engineered). Construction slope movement may be excessive on very steep slopes. Specific areas affected on very steep slopes include: (1) South slopes on 20 materials in the Story Hills greater than 20%, (2) all north slopes greater than 15% on Cretaceous rocks.

HYDROLOGIC

NORTH SUPPLY: Surface water for domestic use has been located throughout the study area except in the Story Hills, the Gallatin and Bridger ranges is inconclusive. The best locations for future water supply are the collector topography and joint and fracture zones and the collector topography and joint and fracture zones may be affected by fire and surface contamination.

100 YEAR FLOODPLAIN: Part portion of the alluvial valley of major streams which will flood during a 100 year recurrence event. Extensive damage to buildings and property is a recurring problem (e.g. May, 1981) and will continue in the future.

HIGH GROUND-WATER TABLE: The area within these boundaries is subject to occasional water table rise to within at least 60" (5 feet) of the ground surface. Such ground water is generally not a problem for houses with basements and septic drainfields.

Partial-Variable Source Areas: These areas are generally confined to shallow slopes near flowing streams. Partial-variable source areas are identified by the presence of water flowing plants, grasses which remain green after mowing have turned yellow in late summer, and by the topographic expression as a high ground-water table.

Analysis report for Gallatin County and adjacent areas from 1980 data: The data base was taken from the 1972 KCS Flood Hazard Analysis report for Gallatin County and adjacent areas from 1980 data. The data base was taken from the 1972 KCS Flood Hazard Analysis report for Gallatin County and adjacent areas from 1980 data. The data base was taken from the 1972 KCS Flood Hazard Analysis report for Gallatin County and adjacent areas from 1980 data. Those adjacent to major streams may flood occasionally.

HAZARDS

US

UNSTABLE SLOPE: Slope with landslide physiography, but where signs of recent movement are non-existent or uncertain. The phenomenon is due to the recent geologic past (geoclimatic changes or other factors). Other phases are metastable or show evidence of downslope creep in debrisways. Portions of this area especially on the steeper north slopes have been associated with activity should be controlled accordingly. Any type of construction especially drainfield siting and roadway drainage structures.

POTENTIALLY UNSTABLE SLOPES: Slopes with conditions conducive to instability, but where past failure is not apparent. The phenomenon is due to the recent geologic past (geoclimatic changes or other factors). Other phases are metastable or show evidence of downslope creep in debrisways. Portions of this area especially on the steeper north slopes have been associated with activity should be controlled accordingly. Any type of construction especially drainfield siting and roadway drainage structures.

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