

DEFINITIONS AND EXPLANATION OF TERMS:

*1 = Percent Sand (% S)

*2 = Percent Clay (% C)

*3 = Native Vegetation:

P = **Prairie** formed under grass vegetation.

Use high range of loading rate.

T = **Transition** formed under mixed grasses and tree vegetation.

Use the mean or average of low and high loading rates.

F = **Forest** formed under tree vegetation.

Use low range of loading rate.

*4 = **Structure Grade:** (General use only. May be affected by soil development or alteration of the site.)1 = **weak** - Poorly define individual peds.2 = **moderate** - Well formed peds, but not distinct in undisturbed soil.3 = **strong** - Durable peds, quite evident in place; will stand displacement.*5 = **Soil Structure:** (General use but may vary on specific site.)sg = **single grain** - Generally loose with no structural units.

Associated with sandy soils.

g = **granular** - Irregular and rounded faces.

Associated with surface layers of prairies soils.

pl = **platy** - Flat & tubular-like units. Associated with soils formed

in tree vegetation and in depressions of prairie vegetation.

Deduct .1 from loading rate for layers with platy structure.sbk = **subangular blocky** - Sub-rounded and planar faces - lack sharp angles.

Associated with subsoil horizons of prairie and transition soils.

abk = **angular blocky** - Sharp angular faces.

Associated with subsoil horizons in soils formed under tree vegetation.

pris = **prismatic** - Vertically elongated units with flat tops.

Associated with lower transition horizons of subsoil horizons.

m = **massive** - no structural units - materials is a coherent mass.

Associated with substratum with no development of soils.

Deduct .1 for layers with massive structure.cdy = **cloddy** - Irregular blocks created by artificial disturbance by tillage or compaction.

Associated with surface layers of soils under cultivation or compaction

by livestock or equipment. **Deduct .1 from loading rate for layers with evidence of soil compaction.****LOADING RATES:** (Ratings are relative values.)

(Low rating = Forest vegetation)

(Average rating = Transition vegetation)

(High rating = Prairie vegetation)

FOOTAGE is calculated for No. of Bedroom Home or gallons per day water usage

Formula = GPD/Loading Rate = Linear Loading Rate/Trench Width = Total Footage.

Example: 450 gpd/.5 LR = 900 LRR/2 Ft. TW = 450 Ft. TF

NATURAL DRAINAGE:All ratings assume drainage of soils are **excessive, somewhat excessive, well or moderately well drained.**

Other drainages of soils assume there is a significant seasonal high water table.

Curtain drains must be install for these conditions.

The following adjustments to loading rates are made for these drainage classes:

Very poorly drained deduct .2 from the loading rate.**Poorly drained deduct .1 from loading rate.****Somewhat poorly drained deduct .05 from loading rate.**

If drainage cannot be improved lack an adequate outlet, then alternative system will need to be design

or use only the soil material above the seasonal high water table.

*8 = **Parent Materials:****Till (WI)** = Wisconsin Till**Till (IES)** = Iowan Erosion Surface**Till (Pre-IL)** = Pre-Illionian Till (Includes Kansan & Nebraskan Till)**Sediments** include any mantle that may overlay another parent material.**Alluvium** include soils formed on terraces or footslopes and toeslopes on flood plains.**Loess** include soils formed in uplands and on benches along major streams.

Loess consists of windblown silty material that mantle the landscape and landform.

Pedisediment formed in erosional sediments with loess over mantle and till is underlain.

Loess and pedisediment are sometimes shallower than 5 feet to the depth of till.

Old Valley Alluvium = Alluvium formed on high terraces or on lower footslopes at base of uplands.

These terraces are frequently covered by loess and pedisediment.

Wind Blown or eolian include soils formed in uplands and terraces along major streams.

Wind blown consists of recent sandy material with little or no soil development.