

## Section II-iii-J

### Soil Features

This table gives estimates of several important soil features which are used in land use planning that involves engineering considerations. Soil features which are covered include bedrock depth and hardness, cemented pan depth and hardness, subsidence, potential frost action, and risk of corrosion for uncoated steel or for concrete.

#### Depth to Bedrock

This value is given if bedrock is within a depth of 60 inches. The depth is based on many soil borings and observations made during soil mapping. The rock is specified as either soft or hard. If the rock is soft, excavations can be made with trenching machines, backhoes, or small rippers. If the rock is hard or massive, blasting or special equipment generally is needed for excavation.

#### Cemented Pan

Cemented pan is a nearly continuous layer of indurated or strongly cemented material having a hard, brittle consistency because the particles are held together by cementing substances such as, calcium carbonate, or oxides of silicon, iron, or aluminum. These layers are identified when they occur within a depth of 60 inches. Pans are classified as "thin" or "thick". "Thin" cemented pans are thin enough so that excavations can be made with trenching machines, backhoes, or small rippers and other equipment common to construction of pipelines, sewerlines, cemeteries, and the like. "Thick" cemented pans are sufficiently thick or massive to require blasting or special equipment beyond which is considered normal in excavating for this type of construction.

#### Subsidence

Subsidence potential is the maximum possible loss of surface elevation from the drainage of wet soils having organic layers or semifluid mineral layers. Estimates of the depth of subsidence (in inches) that takes place soon after drainage (initial subsidence) and after oxidation (total subsidence) are given for soils that are likely to subside.

#### Potential Frost Action

This is the likelihood of upward or lateral movement of soil by the formation of segregated ice lenses (frost heave) and the subsequent loss of soil strength upon thawing. The following classes are used in regions where frost action is a potential problem: (1) Low -- soils are rarely susceptible to the formation of ice lenses, (2) Moderate -- soils are susceptible to the formation of ice lenses, resulting in frost heave and subsequent loss of soil strength, and (3) High -- soils are highly susceptible to the formation of ice lenses, resulting in frost heave and subsequent loss of soil strength.

#### Risk of Corrosion

Various metals and other materials corrode when on or in the soil, and some metals and materials corrode more rapidly when in contact with specific soils than when in contact with others. Corrosivity ratings are given for two of the common structural materials, uncoated steel and concrete. The risk of corrosion classes are low, moderate, and high.

See the National Soil Survey Handbook, Part 618, for definitions and discussion of particular properties.

## Soil Features

Aroostook County, Maine, Southern Part

Absence of an entry indicates that the feature is not a concern or that data were not estimated.

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
CgA: Caribou	---	---	---	---	0	---	Moderate	Low	Low
CgB: Caribou	---	---	---	---	0	---	Moderate	Low	Low
CgC: Caribou	---	---	---	---	0	---	Moderate	Low	Low
CgD: Caribou	---	---	---	---	0	---	Moderate	Low	Low
CgE: Caribou	---	---	---	---	0	---	Moderate	Low	Low
CnA: Colton	---	---	---	---	0	---	Low	Low	Moderate
CnB: Colton	---	---	---	---	0	---	Low	Low	High
CnC: Colton	---	---	---	---	0	---	Low	Low	High
CnD:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
CnD: Colton	---	---	---	---	0	---	Low	Low	High
CnE: Colton	---	---	---	---	0	---	Low	Low	High
CoA: Conant	---	---	---	---	0	---	High	Moderate	Low
CoB: Conant	---	---	---	---	0	---	High	Moderate	Low
CoC: Conant	---	---	---	---	0	---	High	Moderate	Low
DaA: Daigle	---	---	---	---	0	---	High	High	Low
DaB: Daigle	---	---	---	---	0	---	High	High	Low
DaC: Daigle	---	---	---	---	0	---	High	High	Low
GP:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
GP: Pits	---	---	---	---	0	---	None	---	---
Ha: Hadley	---	---	---	---	0	---	High	Low	High
HoA: Howland	---	---	---	---	0	---	High	Moderate	Moderate
HoB: Howland	---	---	---	---	0	---	High	Moderate	Moderate
HoC: Howland	---	---	---	---	0	---	High	Moderate	Moderate
HvB: Howland	---	---	---	---	0	---	High	Moderate	Moderate
HvC: Howland	---	---	---	---	0	---	High	Moderate	Moderate
LnB: Linneus	Bedrock (paralithic)	20-40	---	---	0	---	Moderate	Low	Moderate
LnC:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top In	Thickness In	Hardness	Initial In	Total In		Uncoated Steel	Concrete
LnC: Linneus	Bedrock (paralithic)	20-40	---	---	0	---	Moderate	Low	Moderate
LnD: Linneus	Bedrock (paralithic)	20-40	---	---	0	---	Moderate	Low	Moderate
MaA: Machias	---	---	---	---	0	---	Moderate	Low	Moderate
MaB: Machias	---	---	---	---	0	---	Moderate	Low	Moderate
MaC: Machias	---	---	---	---	0	---	Moderate	Low	Moderate
Md: Made Land	---	---	---	---	0	---	---	---	---
MhB: Mapleton	Bedrock (paralithic)	10-20	---	---	0	---	Moderate	Low	Low
MhC: Mapleton	Bedrock (paralithic)	10-20	---	---	0	---	Moderate	Low	Low
MhD:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
MhD: Mapleton	Bedrock (paralithic)	10-20	---	---	0	---	Moderate	Low	Low
MmC: Mapleton	Bedrock (paralithic)	10-20	---	---	0	---	Moderate	Low	Low
MmD: Mapleton	Bedrock (paralithic)	10-20	---	---	0	---	Moderate	Low	Low
Mn: Mixed Alluvial Land Pd	---	---	---	---	0	---	High	High	Moderate
Mixed Alluvial Land Vpd	---	---	---	---	0	---	High	High	Moderate
MoA: Monarda	---	---	---	---	0	---	High	High	High
Burnham	---	---	---	---	0	---	High	High	Moderate
MoB: Monarda	---	---	---	---	0	---	High	High	High
Burnham	---	---	---	---	0	---	High	High	Moderate
MrB:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost Action	Risk of Corrosion	
	Kind	Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
MrB: Monarda	---	---	---	---	0	---	High	High	High
Burnham	---	---	---	---	0	---	High	High	Moderate
Pa: Muck	---	---	---	---	0	---	High	Moderate	Moderate
Peat	---	---	---	---	0	---	High	High	High
PeA: Perham	---	---	---	---	0	---	Moderate	Moderate	High
PeB: Perham	---	---	---	---	0	---	Moderate	Moderate	High
PeC: Perham	---	---	---	---	0	---	Moderate	Moderate	High
PeD: Perham	---	---	---	---	0	---	Moderate	Moderate	High
PgB: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PgC:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
PgC: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PgD: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PrB: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PrC: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PrD: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PrE: Plaisted	---	---	---	---	0	---	Moderate	Low	High
PvB: Plaisted	---	---	---	---	0	---	Moderate	Low	High
Howland	---	---	---	---	0	---	High	Moderate	Moderate
PvC: Plaisted	---	---	---	---	0	---	Moderate	Low	High

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
PvC: Howland	---	---	---	---	0	---	High	Moderate	Moderate
RaA: Red Hook	---	---	---	---	0	---	High	High	Moderate
Atherton	---	---	---	---	0	---	High	High	Low
RaB: Red Hook	---	---	---	---	0	---	High	High	Moderate
Atherton	---	---	---	---	0	---	High	High	Low
SgA: Stetson	---	---	---	---	0	---	Low	Moderate	High
SgB: Stetson	---	---	---	---	0	---	Low	Moderate	High
ThB: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
ThC: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
ThD:									

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
ThD: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
ThE: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
TkB: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
TkC: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
TkD: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
TkE: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
TsB: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High
Howland	---	---	---	---	0	---	High	Moderate	Moderate
TsC: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High

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## Soil Features - Continued

Aroostook County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Action	Risk of Corrosion	
		Depth to Top	Thickness	Hardness	Initial	Total		Uncoated Steel	Concrete
		In	In		In	In			
TsC: Howland	---	---	---	---	0	---	High	Moderate	Moderate
Wn: Winooski	---	---	---	---	0	---	High	Moderate	Moderate

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