

BUILDING SITE DEVELOPMENT
Sedgwick County, Kansas

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. The following tables show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
015LS: Ladysmith-----	90	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
079CR: Crete-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
079CT: Crete-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
079DE: Detroit-----	100	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00
079DU: Drummond-----	75	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.95	Very limited Shrink-swell	1.00
079FA: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
079FE: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
079GD: Geary-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
079KA: Kaski-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding	1.00	Very limited Flooding Shrink-swell	1.00 0.50
079LA: Ladysmith-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
079LB: Ladysmith-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
079SM: Smolan-----	90	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
095AD: Albion-----	100	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
095LA: Lincoln-----	100	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.03	Very limited Flooding	1.00
095WA: Waldeck-----	100	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
191BA: Bethany-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
191BB: Bethany-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
191DR: Dale-----	50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
Reinach-----	50	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
191EA: Elandco-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
191LO: Lesho-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding Shrink-swell	1.00 0.50

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1011: Albion-----	70	Not limited		Not limited		Not limited	
Shellabarger-----	30	Not limited		Not limited		Not limited	
1070: Avans-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell	0.50
1071: Avans-----	85	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell	0.50
1072: Avans-----	85	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell Slope	0.50 0.12
2204: Jamash-----	50	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00
Piedmont-----	50	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.29	Very limited Shrink-swell	1.00
2205: Jamash-----	60	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00
Piedmont-----	40	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.29	Very limited Shrink-swell	1.00
2207: Jamash-----	80	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Shrink-swell Slope	1.00 1.00 0.12
2381: Kanza-----	50	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Ninnescah-----	50	Very limited Flooding Depth to saturated zone	1.00 0.44	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.44
2587: Imano-----	85	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding Shrink-swell	1.00 0.50
2948: Nalim-----	80	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
3052: Ost-----	55	Not limited		Not limited		Not limited	
Clark-----	45	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
3170: Penalosa-----	100	Somewhat limited Shrink-swell	0.50	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.50
3171: Penalosa-----	100	Somewhat limited Shrink-swell	0.50	Very limited Shrink-swell	1.00	Somewhat limited Shrink-swell	0.50
3535: Shellabarger-----	55	Not limited		Not limited		Not limited	
Nalim-----	45	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
3639: Taver-----	90	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
3966: Willowbrook-----	90	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
4004: Yaggy-----	95	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
Aa: Albion-----	70	Not limited		Not limited		Not limited	
Ab: Shellabarger-----	30	Not limited		Not limited		Not limited	
Ab: Albion-----	50	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
Ab: Shellabarger-----	50	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
AED: Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Ba: Blanket-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Bb: Blanket-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
BRR: Brewer-----	85	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00	Very limited Flooding Shrink-swell	1.00 1.00
Ca: Canadian-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
Cb: Canadian-----	70	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
Cb: Waldeck-----	30	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
Cc: Carwile-----	100	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00
Cd: Clark-----	75	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Ost-----	25	Not limited		Not limited		Not limited	
Ce: Clime-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to soft bedrock Shrink-swell	0.71 0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
Ea: Elandco-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
Eb: Elandco-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
Ec: Elandco-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Shrink-swell	1.00 0.50
Fa: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Fb: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Fc: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell	0.50

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ga: Goessel-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 1.00	Very limited Shrink-swell	1.00
Gb: Goessel-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 1.00	Very limited Shrink-swell	1.00
Ia: Irwin-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Ib: Irwin-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.12
Ic: Irwin-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.00
INT: Aquolls-----	100	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
KAA: Kaski-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding	1.00	Very limited Flooding Shrink-swell	1.00 0.50
La: Lesho-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding Shrink-swell	1.00 0.50
Lb: Lincoln-----	100	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.03	Very limited Flooding	1.00
M-W: Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Ma: Milan-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Mb: Milan-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
Mc: Milan-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.00
Na: Naron-----	100	Not limited		Not limited		Not limited	
Oc: Wellsford-----	100	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00
Od: Wellsford-----	60	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00	Very limited Depth to soft bedrock Shrink-swell Slope	1.00 1.00 0.86
Rock Outcrop-----	40	Not rated		Not rated		Not rated	
Pa: Pits-----	100	Not rated		Not rated		Not rated	

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Pb: Plevna-----	100	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Pc: Pratt-----	100	Not limited		Not limited		Somewhat limited Slope	0.00
Pd: Pratt-----	65	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Slope	1.00
Tivoli-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Ra: Renfrow-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Rb: Renfrow-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.00
Rc: Renfrow-----	65	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Wellsford-----	35	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00 1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 1.00 1.00	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00 1.00
Rd: Rosehill-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.42	Very limited Shrink-swell	1.00
Sa: Shellabarger-----	100	Not limited		Not limited		Not limited	
Sb: Shellabarger-----	100	Not limited		Not limited		Somewhat limited Slope	0.12
Sc: Shellabarger-----	100	Not limited		Not limited		Somewhat limited Slope	0.12
Ta: Tabler-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Tb: Tabler-----	60	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Drummond-----	40	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.61	Very limited Shrink-swell	1.00
Ua: Urban Land-----	70	Not rated		Not rated		Not rated	
Canadian-----	30	Not limited		Not limited		Not limited	
Ub: Urban Land-----	75	Not rated		Not rated		Not rated	
Elandco-----	25	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Uc: Urban Land-----	70	Not rated		Not rated		Not rated	
Farnum-----	30	Not limited		Not limited		Not limited	
Ud: Urban Land-----	70	Not rated		Not rated		Not rated	
Irwin-----	30	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Ue: Urban Land-----	70	Not rated		Not rated		Not rated	
Tabler-----	30	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Va: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50

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Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Vb: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Vc: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
Vd: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
Ve: Vernon-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
Vf: Vernon-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.12
W: Water-----	100	Not rated		Not rated		Not rated	
Wa: Waldeck-----	100	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 0.95	Very limited Flooding	1.00
Wb: Waurika-----	100	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Shrink-swell	1.00 1.00

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
015LS: Ladysmith-----	90	Very limited Depth to saturated zone Low strength Shrink-swell Frost action	1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00
079CR: Crete-----	100	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
079CT: Crete-----	100	Very limited Low strength Shrink-swell Frost action	1.00 1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
079DE: Detroit-----	100	Very limited Shrink-swell Flooding	1.00 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
079DU: Drummond-----	75	Very limited Shrink-swell	1.00	Somewhat limited Depth to saturated zone Too clayey Cutbanks cave	0.95 0.28 0.10	Very limited Salinity Droughty	1.00 0.06
079FA: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
079FE: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
079GD: Geary-----	100	Very limited Frost action Shrink-swell	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
079KA: Kaski-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
079LA: Ladysmith-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
079LB: Ladysmith-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
079SM: Smolan-----	90	Very limited Shrink-swell	1.00	Somewhat limited Cutbanks cave Too clayey	0.10 0.04	Not limited	
095AD: Albion-----	100	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope	0.37
095LA: Lincoln-----	100	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to saturated zone	1.00 0.60 0.03	Somewhat limited Droughty Flooding	0.92 0.60
095WA: Waldeck-----	100	Very limited Flooding	1.00	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
191BA: Bethany-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave Too clayey	0.10 0.03	Not limited	
191BB: Bethany-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave Too clayey	0.10 0.03	Not limited	

BUILDING SITE DEVELOPMENT--Continued
Sedgwick County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
191DR: Dale-----	50	Somewhat limited Shrink-swell Flooding	0.50 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
Reinach-----	50	Somewhat limited Flooding	0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
191EA: Elandco-----	100	Somewhat limited Shrink-swell Flooding	0.50 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
191LO: Lesho-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
1011: Albion-----	70	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Shellabarger-----	30	Not limited		Very limited Cutbanks cave	1.00	Not limited	
1070: Avans-----	100	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
1071: Avans-----	85	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
1072: Avans-----	85	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
2204: Jamash-----	50	Very limited Depth to soft bedrock Low strength	1.00 1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 0.86
Piedmont-----	50	Shrink-swell Very limited Shrink-swell Low strength	1.00 1.00 1.00	Somewhat limited Too clayey Depth to dense layer Depth to soft bedrock Cutbanks cave	0.88 0.50 0.29 0.10	Somewhat limited Depth to bedrock	0.29
2205: Jamash-----	60	Very limited Depth to soft bedrock Low strength	1.00 1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 0.86
Piedmont-----	40	Shrink-swell Very limited Shrink-swell Low strength	1.00 1.00 1.00	Somewhat limited Too clayey Depth to dense layer Depth to soft bedrock Cutbanks cave	0.88 0.50 0.29 0.10	Somewhat limited Depth to bedrock	0.29
2207: Jamash-----	80	Very limited Depth to soft bedrock Low strength Shrink-swell	1.00 1.00 1.00	Very limited Depth to soft bedrock Depth to dense layer Cutbanks cave	1.00 0.50 0.10	Very limited Depth to bedrock Droughty	1.00 0.86

BUILDING SITE DEVELOPMENT--Continued
Sedgwick County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
2381: Kanza-----	50	Very limited Flooding Depth to saturated zone	1.00 0.75	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone Droughty	1.00 0.75 0.00
Ninnescah-----	50	Very limited Flooding Depth to saturated zone	1.00 0.19	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 1.00 0.60	Somewhat limited Flooding Depth to saturated zone	0.60 0.19
2587: Imano-----	85	Very limited Flooding Low strength Shrink-swell	1.00 1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
2948: Nalim-----	80	Very limited Low strength Shrink-swell	1.00 0.50	Very limited Cutbanks cave	1.00	Not limited	
3052: Ost-----	55	Somewhat limited Low strength	0.78	Somewhat limited Cutbanks cave	0.10	Not limited	
Clark-----	45	Somewhat limited Low strength Shrink-swell	0.78 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
3170: Penalosa-----	100	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
3171: Penalosa-----	100	Very limited Low strength Shrink-swell	1.00 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
3535: Shellabarger-----	55	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Nalim-----	45	Very limited Low strength Shrink-swell	1.00 0.50	Very limited Cutbanks cave	1.00	Not limited	
3639: Taver-----	90	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Cutbanks cave	0.10	Not limited	
3966: Willowbrook-----	90	Very limited Flooding	1.00	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
4004: Yaggy-----	95	Very limited Flooding	1.00	Very limited Cutbanks cave Depth to saturated zone Flooding Depth to dense layer	1.00 0.95 0.60 0.50	Somewhat limited Flooding Droughty	0.60 0.04
Aa: Albion-----	70	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Shellabarger-----	30	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Ab: Albion-----	50	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope	0.37
Shellabarger-----	50	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope	0.37
AED: Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	

BUILDING SITE DEVELOPMENT--Continued
Sedgwick County, Kansas

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ba: Blanket-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave Too clayey	0.10 0.03	Not limited	
Bb: Blanket-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave Too clayey	0.10 0.03	Not limited	
BRR: Brewer-----	85	Very limited Shrink-swell Flooding	1.00 0.40	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Ca: Canadian-----	100	Somewhat limited Flooding	0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
Cb: Canadian-----	70	Somewhat limited Flooding	0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
Waldeck-----	30	Very limited Flooding	1.00	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
Cc: Carwile-----	100	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.28 0.10	Very limited Depth to saturated zone	1.00
Cd: Clark-----	75	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ost-----	25	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Ce: Clime-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Depth to soft bedrock Too clayey Cutbanks cave	0.71 0.28 0.10	Very limited Too clayey Depth to bedrock Droughty	1.00 0.71 0.00
Ea: Elandco-----	100	Somewhat limited Shrink-swell Flooding	0.50 0.40	Somewhat limited Cutbanks cave	0.10	Not limited	
Eb: Elandco-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
Ec: Elandco-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.80 0.10	Very limited Flooding	1.00
Fa: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Fb: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Fc: Farnum-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ga: Goessel-----	100	Very limited Shrink-swell	1.00	Very limited Cutbanks cave Depth to saturated zone Too clayey	1.00 1.00 0.28	Very limited Too clayey	1.00
Gb: Goessel-----	100	Very limited Shrink-swell	1.00	Very limited Cutbanks cave Depth to saturated zone Too clayey	1.00 1.00 0.28	Very limited Too clayey	1.00
Ia: Irwin-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	

BUILDING SITE DEVELOPMENT--Continued
Sedgwick County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ib: Irwin-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
Ic: Irwin-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
INT: Aquolls-----	100	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding Cutbanks cave	1.00 1.00 0.10	Very limited Depth to saturated zone Ponding	1.00 1.00
KAA: Kaski-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Somewhat limited Flooding Cutbanks cave	0.60 0.10	Somewhat limited Flooding	0.60
La: Lesho-----	100	Very limited Flooding Shrink-swell	1.00 0.50	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
Lb: Lincoln-----	100	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding Depth to saturated zone	1.00 0.80 0.03	Very limited Flooding Droughty	1.00 0.80
M-W: Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Ma: Milan-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Mb: Milan-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Mc: Milan-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Na: Naron-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Oc: Wellsford-----	100	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Depth to soft bedrock Too clayey Cutbanks cave	1.00 0.28 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Od: Wellsford-----	60	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Depth to soft bedrock Too clayey Cutbanks cave	1.00 0.28 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Rock Outcrop-----	40	Not rated		Not rated		Not rated	
Pa: Pits-----	100	Not rated		Not rated		Not rated	
Pb: Plevna-----	100	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone	1.00 1.00
Pc: Pratt-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	

BUILDING SITE DEVELOPMENT--Continued
Sedgwick County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Pd: Pratt-----	65	Somewhat limited Slope	0.04	Very limited Cutbanks cave Slope	1.00 0.04	Somewhat limited Slope	0.04
Tivoli-----	35	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Droughty	1.00 0.92
Ra: Renfrow-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Rb: Renfrow-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Rc: Renfrow-----	65	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.12 0.10	Not limited	
Wellsford-----	35	Very limited Depth to soft bedrock Shrink-swell	1.00 1.00	Very limited Depth to soft bedrock Too clayey Cutbanks cave	1.00 0.28 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
Rd: Rosehill-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Depth to soft bedrock Cutbanks cave	0.50 0.42 0.10	Very limited Too clayey Depth to bedrock Droughty	1.00 0.42 0.05
Sa: Shellabarger-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Sb: Shellabarger-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Sc: Shellabarger-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	
Ta: Tabler-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
Tb: Tabler-----	60	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
Drummond-----	40	Very limited Shrink-swell	1.00	Somewhat limited Depth to saturated zone Too clayey Cutbanks cave	0.61 0.28 0.10	Not limited	
Ua: Urban Land-----	70	Not rated		Not rated		Not rated	
Canadian-----	30	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Ub: Urban Land-----	75	Not rated		Not rated		Not rated	
Elandco-----	25	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Uc: Urban Land-----	70	Not rated		Not rated		Not rated	
Farnum-----	30	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Ud: Urban Land-----	70	Not rated		Not rated		Not rated	
Irwin-----	30	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	

BUILDING SITE DEVELOPMENT--Continued
Sedgwick County, Kansas

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ue: Urban Land-----	70	Not rated		Not rated		Not rated	
Tabler-----	30	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
Va: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Vb: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Vc: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Vd: Vanoss-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
Ve: Vernon-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
Vf: Vernon-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
W: Water-----	100	Not rated		Not rated		Not rated	
Wa: Waldeck-----	100	Very limited Flooding	1.00	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 0.95 0.60	Somewhat limited Flooding	0.60
Wb: Waurika-----	100	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.50 0.10	Very limited Depth to saturated zone	1.00

