Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
1A	Fluvaquents-Udifluvents complex, 0 to 3 percent slopes, frequently flooded	Very limited	Fluvaquents, frequently flooded 45% Depth to saturated zone Frost action Flooding Slope shape across Steel corrosion Udifluvents, frequently flooded 40% Flooding Steel corrosion Large stones Frost action Depth to saturated zone Wayland 10% Depth to saturated zone Frost action Flooding Steel corrosion Low strength Naples Creek 5% Frost action Flooding Depth to saturated zone Steel corrosion Low strength
2A	Geneseo silty clay loam, 0 to 3 percent slopes	Very limited	Geneseo 90% Frost action Flooding Steel corrosion Hillslope position Slope shape across Naples Creek 10% Frost action Flooding Depth to saturated zone Steel corrosion Low strength
3A	Hemlock silty clay loam, 0 to 3 percent slopes	Very limited	Hemlock 90% Frost action Flooding Steel corrosion Low strength Depth to saturated zone Naples Creek 10% Frost action Flooding Depth to saturated zone Steel corrosion Low strength

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
4A	Naples Creek silty clay loam, 0 to 3 percent slopes	Very limited	Naples Creek 90% Frost action Flooding Depth to saturated zone Steel corrosion Low strength Wayland 5% Depth to saturated zone Frost action Flooding Steel corrosion Low strength Hemlock 5% Frost action Flooding Steel corrosion Low strength Depth to saturated zone
5A	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	Very limited	Wayland 60% Depth to saturated zone Frost action Flooding Steel corrosion Low strength Wayland, very poorly drained 30% Ponding Depth to saturated zone Frost action Flooding Slope shape across Wakeville 10% Frost action Flooding Depth to saturated zone Steel corrosion
12D	Rockrift channery silt loam, 15 to 25 percent slopes	Very limited	Rockrift 85% Slope Large stones Slope direction and gradient Frost action Steel corrosion Mongaup, very stony 10% Slope Depth to hard bedrock Steel corrosion Large stones Slope direction and gradient Willdin 5% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action
13F	Rock outcrop-Arnot complex, 25 to 70 percent slopes	Not rated	Rock outcrop 55%

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
14D	Cadosia channery silt loam, 15 to 25 percent slopes	Very limited	Cadosia 85% Slope Large stones Steel corrosion Slope direction and gradient Frost action Lordstown, very stony 10% Depth to hard bedrock Slope Steel corrosion Slope direction and gradient Frost action Mardin 5% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action
15A	Guyanoga channery silt loam, fan, 0 to 3 percent slopes	Very limited	Guyanoga, fan 90% Large stones Steel corrosion Frost action Flooding Hillslope position Hemlock 5% Frost action Flooding Steel corrosion Low strength Depth to saturated zone
15B	Guyanoga channery silt loam, fan, 3 to 8 percent slopes	Very limited	Guyanoga, fan 90% Large stones Steel corrosion Frost action Flooding Hillslope position Hemlock 5% Frost action Flooding Steel corrosion Low strength Depth to saturated zone

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
16A	Almond channery silt loam, 0 to 3 percent slopes	Very limited	Almond 80% Depth to saturated zone Frost action Steel corrosion Low strength Norchip 8% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Ontusia 7% Depth to saturated zone Frost action Steel corrosion Gretor 5% Frost action Depth to hard bedrock Depth to saturated zone Large stones Steel corrosion
16B	Almond channery silt loam, 3 to 8 percent slopes	Very limited	Almond 80% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Low strength Gretor 5% Frost action Depth to hard bedrock Depth to saturated zone Large stones Steel corrosion Ontusia 5% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Norchip 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
16C	Almond channery silt loam, 8 to 15 percent slopes	Very limited	Almond 80% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Salamanca 5% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Norchip 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Ontusia 5% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Gretor 5% Slope Frost action Depth to hard bedrock Depth to saturated zone Large stones
18A	Homer fine sandy loam, 0 to 3 percent slopes	Very limited	Homer 90% Frost action Depth to saturated zone Steel corrosion Phelps 5% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across Fine-loamy, mixed, active, mesic Typic Argiaquolls 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
19A	Fine-loamy, mixed, active, mesic, Typic Argiaquolls, 0 to 3 percent slopes	Very limited	Fine-loamy, mixed, active, mesic Typic Argiaquolls 80% Ponding Depth to saturated zone Frost action Slope shape across Steel corrosion Homer 8% Frost action Depth to saturated zone Steel corrosion Atherton 7% Depth to saturated zone Frost action Slope shape across Steel corrosion Palms, undrained 5% Ponding Depth to saturated zone Frost action Low strength Steel corrosion
20A	Atherton and Fine-loamy, mixed, active, mesic, Typic Argiaquolls, 0 to 3 percent slopes	Very limited	Atherton 41% Depth to saturated zone Frost action Slope shape across Steel corrosion Fine-loamy, mixed, active, mesic Typic Argiaquolls 39% Ponding Depth to saturated zone Frost action Slope shape across Steel corrosion Homer 8% Frost action Depth to saturated zone Steel corrosion Canandaigua 7% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion
24A	Howard gravelly loam, 0 to 3 percent slopes	Somewhat limited	Howard 80% Steel corrosion Frost action Hillslope position Slope shape across Palmyra 10% Steel corrosion Frost action Hillslope position Slope shape across Arkport 5% Frost action Hillslope position Slope shape across

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
24B	Howard gravelly loam, 3 to 8 percent slopes	Somewhat limited	Howard 80% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Palmyra 10% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Arkport 5% Frost action Hillslope position Slope shape across Slope direction and gradient
24C	Howard gravelly loam, 8 to 15 percent slopes	Somewhat limited	Howard 80% Steel corrosion Frost action Hillslope position Slope direction and gradient Slope shape across Palmyra 10% Steel corrosion Frost action Slope direction and gradient Hillslope position Slope shape across Arkport 5% Frost action Slope direction and gradient Slope shape across Slope Hillslope position
24D	Howard soils, 15 to 25 percent slopes	Very limited	Howard 65% Slope Steel corrosion Slope direction and gradient Frost action Slope shape across Palmyra 20% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Arkport 13% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Phelps 2% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
25A	Chenango gravelly loam, 0 to 3 percent slopes	Somewhat limited	Chenango 90% Steel corrosion Frost action Hillslope position Slope shape across Castile 8% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Valois 2% Steel corrosion Frost action Hillslope position Slope shape across
25B	Chenango gravelly loam, 3 to 8 percent slopes	Somewhat limited	Chenango 90% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Castile 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Valois 5% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient
25C	Chenango gravelly loam, 8 to 15 percent slopes	Somewhat limited	Chenango 90% Steel corrosion Frost action Hillslope position Slope direction and gradient Slope shape across Castile 5% Steel corrosion Frost action Depth to saturated zone Slope direction and gradient Hillslope position Valois 5% Steel corrosion Frost action Slope direction and gradient Hillslope position Slope shape across

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
25D	Chenango gravelly loam, 15 to 25 percent slopes	Very limited	Chenango 90% Slope Slope direction and gradient Frost action Steel corrosion Slope shape across Valois 2% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position
25E	Chenango gravelly loam, 25 to 35 percent slopes	Very limited	Chenango 90% Slope Slope direction and gradient Frost action Steel corrosion Slope shape across Valois 10% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position
26B	Chenango channery loam, fan, 3 to 8 percent slopes	Somewhat limited	Chenango, fan 85% Frost action Flooding Steel corrosion Hillslope position Slope shape across Castile 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across
27B	Castile gravelly silt loam, 3 to 8 percent slopes	Somewhat limited	Castile 85% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Chenango 5% Steel corrosion Frost action Hillslope position Slope shape across

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
31A	Collamer silt loam, 0 to 3 percent slopes	Very limited	Collamer 85% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across Niagara 10% Frost action Depth to saturated zone Steel corrosion Low strength Schoharie 5% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone
31B	Collamer silt loam, 3 to 8 percent slopes	Very limited	Collamer 85% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across Niagara 10% Frost action Depth to saturated zone Steel corrosion Low strength Slope direction and gradient Schoharie 5% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone
31C	Collamer silt loam, 8 to 15 percent slopes	Very limited	Collamer 85% Frost action Steel corrosion Slope direction and gradient Slope Depth to saturated zone Niagara 10% Frost action Depth to saturated zone Steel corrosion Low strength Slope direction and gradient Schoharie 5% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
31D	Collamer silt loam, 15 to 25 percent slopes	Very limited	Collamer 90% Slope Frost action Steel corrosion Slope direction and gradient Depth to saturated zone Schoharie 5% Slope Low strength Steel corrosion Slope direction and gradient Frost action Niagara 5% Frost action Depth to saturated zone Steel corrosion Low strength Slope
32A	Dunkirk fine sandy loam, 0 to 3 percent slopes	Very limited	Dunkirk 90% Frost action Steel corrosion Low strength Hillslope position Slope shape across Schoharie 3% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone Niagara 3% Frost action Depth to saturated zone Steel corrosion Low strength
32B	Dunkirk fine sandy loam, 3 to 8 percent slopes	Very limited	Dunkirk 90% Frost action Steel corrosion Hillslope position Low strength Slope shape across Schoharie 3% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone Niagara 3% Frost action Depth to saturated zone Steel corrosion Low strength Slope direction and gradient

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
33A	Dunkirk silt loam, 0 to 3 percent slopes	Very limited	Dunkirk 90% Frost action Steel corrosion Low strength Hillslope position Slope shape across Niagara 3% Frost action Depth to saturated zone Steel corrosion Low strength Schoharie 3% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone
33B	Dunkirk silt loam, 3 to 8 percent slopes	Very limited	Dunkirk 90% Frost action Steel corrosion Hillslope position Low strength Slope shape across Schoharie 3% Low strength Steel corrosion Frost action Shrink-swell Depth to saturated zone Niagara 3% Frost action Depth to saturated zone Steel corrosion Low strength Slope direction and gradient
33C	Dunkirk silt loam, 8 to 15 percent slopes	Very limited	Dunkirk 90% Frost action Steel corrosion Slope Slope direction and gradient Hillslope position Schoharie 3% Low strength Steel corrosion Slope Slope direction and gradient Frost action Niagara 3% Frost action Depth to saturated zone Steel corrosion Low strength

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
33D	Dunkirk silt loam, 15 to 25 percent slopes	Very limited	Dunkirk 90% Slope Frost action Steel corrosion Slope direction and gradient Low strength Schoharie 5% Slope Low strength Steel corrosion Slope direction and gradient Frost action Arkport 5% Slope Slope direction and gradient Frost action Slope shape across Hillslope position
33E	Dunkirk silt loam, 25 to 35 percent slopes	Very limited	Dunkirk 90% Slope Frost action Steel corrosion Slope direction and gradient Low strength Schoharie 5% Slope Low strength Steel corrosion Slope direction and gradient Frost action Arkport 5% Slope Slope direction and gradient Frost action Slope shape across Hillslope position

Solar Arrays, Soil-based Anchor Systems

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
34A	Lakemont silty clay loam, 0 to 3 percent slopes	Very limited	Lakemont 85% Depth to saturated zone Shrink-swell Frost action Low strength Steel corrosion Odessa 5% Depth to saturated zone Shrink-swell Frost action Low strength Steel corrosion Fonda 4% Ponding Depth to saturated zone Frost action Low strength Shrink-swell Canandaigua 4% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Barre 2% Depth to saturated zone Frost action Steel corrosion Slope shape across Low strength
35A	Odessa silt loam, 0 to 3 percent slopes	Very limited	Odessa 85% Depth to saturated zone Shrink-swell Frost action Low strength Steel corrosion Lakemont 5% Depth to saturated zone Frost action Shrink-swell Steel corrosion Low strength Churchville 3% Depth to saturated zone Shrink-swell Frost action Steel corrosion Low strength Rhinebeck 2% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
35B	Odessa silty clay loam, 3 to 8 percent slopes	Very limited	Odessa 85% Depth to saturated zone Shrink-swell Frost action Low strength Steel corrosion Lakemont 4% Depth to saturated zone Shrink-swell Frost action Low strength Steel corrosion Churchville 3% Depth to saturated zone Shrink-swell Frost action Steel corrosion Low strength Rhinebeck 2% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell
36A	Schoharie silty clay loam, 0 to 3 percent slopes	Somewhat limited	Schoharie 85% Shrink-swell Low strength Steel corrosion Frost action Hillslope position Cazenovia 5% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone Cayuga 3% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone
36B	Schoharie silty clay loam, 3 to 8 percent slopes	Somewhat limited	Schoharie 85% Shrink-swell Low strength Steel corrosion Frost action Hillslope position Cazenovia 5% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Cayuga 3% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
36C	Schoharie silty clay loam, 8 to 15 percent slopes	Somewhat limited	Schoharie 85% Shrink-swell Low strength Steel corrosion Frost action Slope direction and gradient Cazenovia 5% Steel corrosion Frost action Slope direction and gradient Slope Hillslope position Cayuga 3% Steel corrosion Frost action Slope direction and gradient Slope Hillslope position
36D	Schoharie silty clay loam, 15 to 25 percent slopes	Very limited	Schoharie 85% Slope Shrink-swell Low strength Steel corrosion Slope direction and gradient Cazenovia 5% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Odessa 5% Slope Depth to saturated zone Shrink-swell Frost action Low strength Cayuga 3% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Collamer 2% Slope Frost action Steel corrosion Slope direction and gradient Depth to saturated zone

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
36E	Schoharie silty clay loam, 25 to 45 percent slopes	Very limited	Schoharie 85% Slope Shrink-swell Low strength Steel corrosion Slope direction and gradient Odessa 5% Slope Depth to saturated zone Shrink-swell Frost action Low strength Cazenovia 5% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Cayuga 3% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Collamer 2% Slope Frost action Steel corrosion Slope direction and gradient Depth to saturated zone
37A	Schoharie silt loam, 0 to 3 percent slopes	Somewhat limited	Schoharie 85% Shrink-swell Low strength Steel corrosion Frost action Hillslope position Cazenovia 5% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone Cayuga 3% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
37B	Schoharie silt loam, 3 to 8 percent slopes	Somewhat limited	Schoharie 85% Shrink-swell Low strength Steel corrosion Frost action Hillslope position Cazenovia 5% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone Cayuga 3% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone
38A	Niagara silt loam, 0 to 3 percent slopes	Very limited	Niagara 85% Frost action Depth to saturated zone Steel corrosion Low strength Canandaigua 5% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Rhinebeck 5% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Collamer 5% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
38B	Niagara silt loam, 3 to 8 percent slopes	Very limited	Niagara 85% Frost action Depth to saturated zone Steel corrosion Low strength Canandaigua 5% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Rhinebeck 5% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Collamer 5% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across
39A	Rhinebeck silty clay loam, 0 to 3 percent slopes	Very limited	Rhinebeck 90% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Lakemont 5% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across Niagara 5% Frost action Depth to saturated zone Steel corrosion Low strength
41A	Aeric Epiaquepts, 0 to 3 percent slopes	Very limited	Aeric Epiaquepts 50% Depth to saturated zone Steel corrosion Frost action Shrink-swell Slope shape across Aeric Epiaquepts 45% Depth to saturated zone Frost action Shrink-swell Slope shape across Steel corrosion

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
43A	Canandaigua silt loam, 0 to 3 percent slopes	Very limited	Canandaigua 90% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Canandaigua 4% Ponding Depth to saturated zone Frost action Low strength Slope shape across Lakemont 3% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across Niagara 3% Frost action Depth to saturated zone Steel corrosion Low strength
44A	Canandaigua mucky silt loam, 0 to 3 percent slopes	Very limited	Canandaigua 90% Ponding Depth to saturated zone Frost action Low strength Slope shape across Canandaigua 5% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Lakemont 3% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across Palms, undrained 2% Ponding Depth to saturated zone Frost action Low strength Steel corrosion

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
45A	Fonda mucky silt loam, 0 to 3 percent slopes	Very limited	Fonda 95% Ponding Depth to saturated zone Frost action Low strength Shrink-swell Canandaigua 3% Ponding Depth to saturated zone Frost action Low strength Slope shape across Palms, undrained 2% Ponding Depth to saturated zone Frost action Low strength Steel corrosion
46A	Galen fine sandy loam, 0 to 3 percent slopes	Somewhat limited	Galen 90% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
46B	Galen fine sandy loam, 3 to 8 percent slopes	Somewhat limited	Galen 90% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
48A	Arkport fine sandy loam, 0 to 3 percent slopes	Somewhat limited	Arkport 95% Frost action Hillslope position Slope shape across Galen 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
48B	Arkport fine sandy loam, 3 to 8 percent slopes	Somewhat limited	Arkport 95% Frost action Hillslope position Slope shape across Galen 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
48C	Arkport fine sandy loam, 8 to 15 percent slopes	Somewhat limited	Arkport 95% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Galen 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
48D	Arkport fine sandy loam, 15 to 25 percent slopes	Very limited	Arkport 90% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Dunkirk 8% Slope Frost action Steel corrosion Slope direction and gradient Hillslope position Palmyra 2% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position
49B	Arkport loamy fine sand, 3 to 8 percent slopes	Somewhat limited	Arkport 95% Frost action Hillslope position Slope shape across Galen 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
49D	Arkport loamy fine sand, 15 to 25 percent slopes	Very limited	Arkport 95% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Dunkirk 3% Slope Frost action Steel corrosion Slope direction and gradient Hillslope position Palmyra 2% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
49E	Arkport loamy fine sand, 25 to 35 percent slopes	Very limited	Arkport 90% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Dunkirk 8% Slope Frost action Steel corrosion Slope direction and gradient Hillslope position Palmyra 2% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position
49F	Arkport loamy fine sand, 35 to 55 percent slopes	Very limited	Arkport 90% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Dunkirk 8% Slope Frost action Steel corrosion Slope direction and gradient Hillslope position Palmyra 2% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position
50B	Dunkirk-Arkport complex, 3 to 8 percent slopes	Very limited	Dunkirk 50% Frost action Steel corrosion Hillslope position Low strength Slope shape across Collamer 5% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across
50C	Dunkirk-Arkport complex, 8 to 15 percent slopes	Very limited	Dunkirk 60% Frost action Steel corrosion Hillslope position Slope direction and gradient Slope Collamer 5% Frost action Steel corrosion Slope direction and gradient Slope Depth to saturated zone

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
50D	Dunkirk-Arkport complex, 15 to 25 percent slopes	Very limited	Dunkirk 60% Slope Frost action Steel corrosion Slope direction and gradient Low strength Arkport 35% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Collamer 5% Slope Frost action Steel corrosion Slope direction and gradient Depth to saturated zone
53A	Lamson fine sandy loam, 0 to 3 percent slopes	Very limited	Lamson 90% Depth to saturated zone Frost action Steel corrosion Lamson 5% Ponding Depth to saturated zone Frost action Slope shape across Steel corrosion Canandaigua 3% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion
54A	Lamson mucky fine sandy loam, 0 to 3 percent slopes	Very limited	Lamson 90% Ponding Depth to saturated zone Frost action Slope shape across Steel corrosion Canandaigua 5% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Lamson 5% Depth to saturated zone Frost action Steel corrosion
56A	Elnora loamy fine sand, 0 to 3 percent slopes	Somewhat limited	Elnora 90% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
58B	Colonie loamy fine sand, 3 to 8 percent slopes	Somewhat limited	Colonie 95% Hillslope position Slope shape across Elnora 5% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone
58C	Colonie loamy fine sand, 8 to 15 percent slopes	Somewhat limited	Colonie 95% Hillslope position Slope direction and gradient Slope shape across Slope Elnora 5% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone
62B	Mardin channery silt loam, 3 to 8 percent slopes	Somewhat limited	Mardin 85% Depth to saturated zone Steel corrosion Frost action Hillslope position Slope shape across Bath 5% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position
62C	Mardin channery silt loam, 8 to 15 percent slopes	Somewhat limited	Mardin 88% Depth to saturated zone Steel corrosion Slope Slope direction and gradient Frost action

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
62D	Mardin channery silt loam, 15 to 25 percent slopes	Very limited	Mardin 85% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action Lordstown 5% Depth to hard bedrock Slope Large stones Steel corrosion Slope direction and gradient Volusia 5% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Bath 5% Slope Steel corrosion Slope direction and gradient Frost action Large stones
62E	Mardin channery silt loam, 25 to 35 percent slopes	Very limited	Mardin 80% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action Bath 8% Slope Steel corrosion Slope direction and gradient Frost action Large stones Lordstown, very stony 7% Depth to hard bedrock Slope Large stones Steel corrosion Slope direction and gradient Volusia 5% Slope Depth to saturated zone Frost action Steel corrosion Slope direction and gradient
63B	Langford channery silt loam, 3 to 8 percent slopes	Somewhat limited	Langford 85% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across Schuyler 5% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
63C	Langford channery silt loam, 8 to 15 percent slopes	Somewhat limited	Langford 85% Steel corrosion Slope Depth to saturated zone Slope direction and gradient Frost action Chadakoin 5% Slope Slope direction and gradient Frost action Hillslope position Steel corrosion Schuyler 5% Steel corrosion Depth to saturated zone Slope Slope direction and gradient Frost action
63D	Langford channery silt loam, 15 to 25 percent slopes	Very limited	Langford 80% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Erie 5% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Schuyler 5% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Towerville 5% Slope Depth to hard bedrock Steel corrosion Slope direction and gradient Frost action Chadakoin 5% Slope Slope direction and gradient Frost action Steel corrosion Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
64B	Langford-Erie channery silt loams, 3 to 8 percent slopes	Very limited	Erie 40% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Low strength Chippewa 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Fremont 5% Depth to saturated zone Frost action Steel corrosion Low strength
66A	Lyons soils, 0 to 3 percent slopes	Very limited	Lyons 75% Depth to saturated zone Frost action Steel corrosion Slope shape across Lyons, frequently ponded 15% Ponding Depth to saturated zone Frost action Steel corrosion Slope shape across Appleton 3% Depth to saturated zone Frost action Steel corrosion Canandaigua 3% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Kendaia 2% Depth to saturated zone Frost action Steel corrosion Palms, undrained 1% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Ilion 1% Depth to saturated zone Frost action Slope shape across Steel corrosion Shrink-swell

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
68A	Volusia channery silt loam, 0 to 3 percent slopes	Very limited	Volusia 90% Depth to saturated zone Frost action Steel corrosion Chippewa 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength
68B	Volusia channery silt loam, 3 to 8 percent slopes	Very limited	Volusia 90% Depth to saturated zone Frost action Steel corrosion Chippewa 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength
68C	Volusia channery silt loam, 8 to 15 percent slopes	Very limited	Volusia 90% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Mardin 6% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action Chippewa 4% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength
68D	Volusia channery silt loam, 15 to 25 percent slopes	Very limited	Volusia 90% Slope Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Mardin 7% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action Chippewa 3% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
69A	Erie channery silt loam, 0 to 3 percent slopes	Very limited	Erie 80% Depth to saturated zone Frost action Steel corrosion Low strength Chippewa 10% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Fremont 5% Depth to saturated zone Frost action Steel corrosion Low strength
69B	Erie channery silt loam, 3 to 8 percent slopes	Very limited	Erie 80% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Low strength Chippewa 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Fremont 5% Depth to saturated zone Frost action Steel corrosion Low strength
69C	Erie channery silt loam, 8 to 15 percent slopes	Very limited	Erie 80% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Langford 10% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Fremont 5% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Chippewa 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
71A	Darien silt loam, 0 to 3 percent slopes	Very limited	Darien 95% Frost action Depth to saturated zone Steel corrosion Low strength Ilion 4% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Angola 1% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength
71B	Darien silt loam, 3 to 8 percent slopes	Very limited	Darien 95% Frost action Depth to saturated zone Steel corrosion Low strength Ilion 4% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Angola 1% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength
71C	Darien silt loam, 8 to 15 percent slopes	Very limited	Darien 95% Frost action Depth to saturated zone Slope Steel corrosion Slope direction and gradient Ilion 4% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Angola 1% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
72A	Darien-Ilion silt loams, 0 to 3 percent slopes	Very limited	Darien 68% Frost action Depth to saturated zone Steel corrosion Slope shape across Low strength Ilion 27% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Angola 5% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength
72B	Darien-Ilion silt loams, 3 to 8 percent slopes	Very limited	Darien 68% Frost action Depth to saturated zone Steel corrosion Slope shape across Low strength Ilion 27% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Angola 5% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength
73B	Gretor silt loam, 3 to 8 percent slopes	Very limited	Gretor 95% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength Gretor, poorly drained 5% Depth to saturated zone Frost action Depth to hard bedrock Steel corrosion Low strength
73C	Gretor silt loam, 8 to 15 percent slopes	Very limited	Gretor 95% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope direction and gradient Gretor, poorly drained 5% Depth to saturated zone Frost action Depth to hard bedrock Steel corrosion Hillslope position

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
73D	Gretor channery silt loam, 15 to 25 percent slopes	Very limited	Gretor 90% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Mongaup, very stony 8% Slope Depth to hard bedrock Steel corrosion Large stones Slope direction and gradient Gretor, poorly drained 2% Depth to saturated zone Frost action Depth to hard bedrock Steel corrosion Slope direction and gradient
76B	Orpark silt loam, 3 to 8 percent slopes	Very limited	Orpark 95% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength Orpark, poorly drained 5% Depth to saturated zone Frost action Depth to hard bedrock Steel corrosion Low strength
76C	Orpark silt loam, 8 to 15 percent slopes	Very limited	Orpark 95% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope direction and gradient Orpark, poorly drained 5% Depth to saturated zone Frost action Depth to hard bedrock Steel corrosion Low strength
76D	Orpark channery silt loam, 15 to 25 percent slopes	Very limited	Orpark 90% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Orpark, poorly drained 5% Depth to saturated zone Frost action Depth to hard bedrock Steel corrosion Low strength Lordstown, very stony 5% Depth to hard bedrock Slope Steel corrosion Slope direction and gradient Frost action

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
77A	Chippewa silt loam, 0 to 3 percent slopes	Very limited	Chippewa 85% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Chippewa, very poorly drained 10% Ponding Depth to saturated zone Frost action Steel corrosion Slope shape across Volusia 5% Depth to saturated zone Frost action Steel corrosion
77B	Chippewa silt loam, 3 to 8 percent slopes	Very limited	Chippewa 85% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Volusia 10% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Chippewa, very poorly drained 5% Ponding Depth to saturated zone Frost action Steel corrosion Slope shape across
82B	Manlius channery silt loam, 3 to 8 percent slopes	Very limited	Manlius 95% Large stones Steel corrosion Frost action Hillslope position Slope shape across Gretor 5% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope direction and gradient
82C	Manlius channery silt loam, 8 to 15 percent slopes	Very limited	Manlius 95% Large stones Steel corrosion Slope Slope direction and gradient Frost action Gretor 5% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
82D	Manlius channery silt loam, 15 to 25 percent slopes	Very limited	Manlius 95% Slope Large stones Steel corrosion Slope direction and gradient Frost action Arnot, very stony 4% Depth to hard bedrock Slope Large stones Steel corrosion Slope direction and gradient Gretor 1% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion
91A	Palms muck, 0 to 3 percent slopes	Very limited	Palms, undrained 55% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Palms, drained 40% Depth to saturated zone Frost action Low strength Steel corrosion Canandaigua 5% Ponding Depth to saturated zone Frost action Low strength Slope shape across
92A	Carlisle muck, 0 to 3 percent slopes	Very limited	Carlisle, undrained 45% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Carlisle, drained 40% Depth to saturated zone Frost action Low strength Steel corrosion Slope shape across Palms, undrained 10% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Canandaigua 5% Ponding Depth to saturated zone Frost action Low strength Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
93A	Edwards muck, 0 to 3 percent slopes	Very limited	Edwards, undrained 50% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Edwards, drained 35% Depth to saturated zone Frost action Low strength Steel corrosion Slope shape across Martisco, undrained 10% Ponding Depth to saturated zone Frost action Low strength Slope shape across Canandaigua 5% Ponding Depth to saturated zone Frost action Low strength Slope shape across
94A	Martisco muck, 0 to 3 percent slopes	Very limited	Martisco, undrained 55% Ponding Depth to saturated zone Frost action Low strength Slope shape across Martisco, drained 35% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion Canandaigua 5% Ponding Depth to saturated zone Frost action Low strength Slope shape across Palms, drained 5% Depth to saturated zone Frost action Low strength Steel corrosion

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
95A	Saprists, 0 to 3 percent slopes, inundated	Very limited	Saprists, inundated 85% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Palms, undrained 5% Ponding Depth to saturated zone Frost action Low strength Steel corrosion Fluvaquents, frequently flooded 5% Depth to saturated zone Frost action Flooding Slope shape across Steel corrosion Carlisle, undrained 5% Ponding Depth to saturated zone Frost action Low strength Steel corrosion
101A	Honeoye loam, 0 to 3 percent slopes	Somewhat limited	Honeoye 85% Frost action Hillslope position Slope shape across Lima 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Lansing 4% Frost action Hillslope position Slope shape across
101B	Honeoye loam, 3 to 8 percent slopes	Somewhat limited	Honeoye 85% Frost action Hillslope position Slope shape across Slope direction and gradient Lima 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Lansing 4% Frost action Hillslope position Slope shape across Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
101C	Honeoye loam, 8 to 15 percent slopes	Somewhat limited	Honeoye 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Lima 5% Steel corrosion Slope Slope direction and gradient Frost action Depth to saturated zone Lansing 4% Slope Slope direction and gradient Frost action Hillslope position Slope shape across
101D	Honeoye loam, 15 to 25 percent slopes	Very limited	Honeoye 85% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Lima 5% Slope Steel corrosion Slope direction and gradient Frost action Depth to saturated zone Lansing 4% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Kendaia 4% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Wassaic 2% Slope Depth to hard bedrock Slope direction and gradient Frost action Hillslope position

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
101E	Honeoye loam, 25 to 35 percent slopes	Very limited	Honeoye 85% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Lima 5% Slope Steel corrosion Slope direction and gradient Frost action Depth to saturated zone Kendaia 4% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Lansing 4% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Wassaic 2% Slope Depth to hard bedrock Slope direction and gradient Frost action Hillslope position
104A	Honeoye loam, 0 to 3 percent slopes, lower clay surface	Somewhat limited	Honeoye, lower clay surface 85% Frost action Hillslope position Slope shape across Lima 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Lansing 4% Frost action Hillslope position Slope shape across
104B	Honeoye loam, 3 to 8 percent slopes, lower clay surface	Somewhat limited	Honeoye, lower clay surface 85% Frost action Hillslope position Slope shape across Slope direction and gradient Lima 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Lansing 4% Frost action Hillslope position Slope shape across Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
104C	Honeoye loam, 8 to 15 percent slopes, lower clay surface	Somewhat limited	Honeoye, lower clay surface 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Lima 5% Steel corrosion Slope Slope direction and gradient Frost action Depth to saturated zone Lansing 4% Slope Slope direction and gradient Frost action Hillslope position Slope shape across
106B	Danley-Lansing complex, 3 to 8 percent slopes	Somewhat limited	Danley 50% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across Lansing 45% Frost action Hillslope position Slope shape across Conesus 2% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across
107B	Conesus-Lansing complex, 3 to 8 percent slopes	Somewhat limited	Conesus 50% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Lansing 45% Frost action Hillslope position Slope shape across Danley 1% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
108C	Lansing loam, 8 to 15 percent slopes	Somewhat limited	Lansing 85% Frost action Slope direction and gradient Slope Hillslope position Slope shape across Conesus 8% Steel corrosion Frost action Slope direction and gradient Depth to saturated zone Slope Danley 1% Steel corrosion Depth to saturated zone Frost action Slope direction and gradient Slope
108D	Lansing loam, 15 to 25 percent slopes	Very limited	Lansing 85% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Conesus 9% Slope Steel corrosion Slope direction and gradient Frost action Depth to saturated zone Wassaic 3% Slope Depth to hard bedrock Slope direction and gradient Frost action Hillslope position Kendaia 2% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Slope Appleton 1% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Slope

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
108E	Lansing loam, 25 to 35 percent slopes	Very limited	Lansing 85% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Cazenovia 10% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Aurora 5% Slope Frost action Depth to hard bedrock Steel corrosion Depth to saturated zone
112B	Ontario fine sandy loam, 3 to 8 percent slopes	Somewhat limited	Ontario 85% Frost action Hillslope position Slope shape across Honeoye 5% Frost action Hillslope position Slope shape across Hilton 5% Steel corrosion Frost action Depth to saturated zone Slope shape across Hillslope position Cazenovia 3% Steel corrosion Frost action Hillslope position Slope shape across Depth to saturated zone

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
112C	Ontario fine sandy loam, 8 to 15 percent slopes	Somewhat limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Hilton 5% Steel corrosion Slope Slope direction and gradient Frost action Depth to saturated zone Cazenovia 3% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position
112D	Ontario fine sandy loam, 15 to 25 percent slopes	Very limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Cazenovia 5% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Appleton 2% Depth to saturated zone Frost action Slope Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
112E	Ontario fine sandy loam, 25 to 35 percent slopes	Very limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Cazenovia 5% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Appleton 2% Depth to saturated zone Frost action Slope Steel corrosion Slope direction and gradient
114B	Ontario gravelly loam, 3 to 8 percent slopes	Somewhat limited	Ontario 85% Frost action Hillslope position Slope shape across Slope direction and gradient Hilton 5% Steel corrosion Frost action Depth to saturated zone Slope shape across Hillslope position Honeoye 5% Frost action Hillslope position Slope shape across Slope direction and gradient Cazenovia 3% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
114C	Ontario gravelly loam, 8 to 15 percent slopes	Somewhat limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Hilton 5% Steel corrosion Slope Slope direction and gradient Frost action Depth to saturated zone Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Cazenovia 3% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position
114D	Ontario gravelly loam, 15 to 25 percent slopes	Very limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Appleton 2% Depth to saturated zone Frost action Slope Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
116B	Ontario loam, 3 to 8 percent slopes	Somewhat limited	Ontario 85% Frost action Hillslope position Slope shape across Slope direction and gradient Honeoye 5% Frost action Hillslope position Slope shape across Slope direction and gradient Hilton 5% Steel corrosion Frost action Depth to saturated zone Slope shape across Hillslope position Cazenovia 3% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient
116C	Ontario loam, 8 to 15 percent slopes	Somewhat limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Hilton 5% Steel corrosion Slope Slope direction and gradient Frost action Depth to saturated zone Cazenovia 3% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position

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Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
116D	Ontario loam, 15 to 25 percent slopes	Very limited	Ontario 85% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Cazenovia 5% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Honeoye 5% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Appleton 2% Depth to saturated zone Frost action Slope Steel corrosion Slope direction and gradient
118F	Ontario, Honeoye, and Lansing soils, 35 to 55 percent slopes	Very limited	Ontario 40% Slope Slope direction and gradient Frost action Hillslope position Slope shape across Honeoye 35% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Lansing 20% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Aurora 5% Slope Frost action Depth to hard bedrock Steel corrosion Depth to saturated zone

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
120E	Palmyra and Howard soils, 25 to 45 percent slopes	Very limited	Palmyra 55% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Howard 40% Slope Steel corrosion Slope direction and gradient Frost action Slope shape across Colonie 5% Slope Slope direction and gradient Hillslope position Slope shape across
122A	Palmyra cobbly loam, 0 to 3 percent slopes	Somewhat limited	Palmyra 95% Steel corrosion Frost action Hillslope position Slope shape across Honeoye, lower clay surface 5% Frost action Hillslope position Slope shape across
122B	Palmyra cobbly loam, 3 to 8 percent slopes	Somewhat limited	Palmyra 95% Steel corrosion Frost action Hillslope position Slope shape across Honeoye, lower clay surface 5% Frost action Hillslope position Slope shape across Slope direction and gradient
124A	Palmyra fine sandy loam, 0 to 3 percent slopes	Somewhat limited	Palmyra 90% Steel corrosion Frost action Hillslope position Slope shape across Howard 10% Steel corrosion Frost action Hillslope position Slope shape across
124B	Palmyra fine sandy loam, 3 to 8 percent slopes	Somewhat limited	Palmyra 90% Steel corrosion Frost action Hillslope position Slope shape across Howard 10% Steel corrosion Frost action Hillslope position Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
126A	Palmyra gravelly loam, 0 to 3 percent slopes	Somewhat limited	Palmyra 95% Steel corrosion Frost action Hillslope position Slope shape across Arkport 5% Frost action Hillslope position Slope shape across
126B	Palmyra gravelly loam, 3 to 8 percent slopes	Somewhat limited	Palmyra 95% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Arkport 5% Frost action Hillslope position Slope shape across Slope direction and gradient
126C	Palmyra gravelly loam, 8 to 15 percent slopes	Somewhat limited	Palmyra 90% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position Arkport 10% Slope Slope direction and gradient Frost action Slope shape across Hillslope position
126D	Palmyra gravelly loam, 15 to 25 percent slopes	Very limited	Palmyra 90% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Arkport 10% Slope Slope direction and gradient Frost action Slope shape across Hillslope position
128A	Palmyra gravelly sandy loam, 0 to 3 percent slopes	Somewhat limited	Palmyra 90% Steel corrosion Frost action Hillslope position Slope shape across Arkport 10% Frost action Hillslope position Slope shape across

Solar Arrays, Soil-based Anchor Systems

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Tie-break Rule: Higher

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Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
128B	Palmyra gravelly sandy loam, 3 to 8 percent slopes	Somewhat limited	Palmyra 90% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Arkport 10% Frost action Hillslope position Slope shape across Slope direction and gradient
128C	Palmyra gravelly sandy loam, 8 to 15 percent slopes	Somewhat limited	Palmyra 90% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position Arkport 10% Slope Slope direction and gradient Frost action Slope shape across Hillslope position
130A	Farmington loam, 0 to 3 percent slopes	Very limited	Farmington 90% Depth to hard bedrock Frost action Hillslope position Slope shape across Galoo 5% Depth to hard bedrock Low strength Frost action Hillslope position Slope shape across Nuhi 5% Depth to hard bedrock Depth to saturated zone Steel corrosion Frost action Hillslope position
130B	Farmington loam, 3 to 8 percent slopes	Very limited	Farmington 90% Depth to hard bedrock Frost action Hillslope position Slope shape across Galoo 5% Depth to hard bedrock Low strength Frost action Hillslope position Slope shape across Nuhi 5% Depth to hard bedrock Depth to saturated zone Steel corrosion Frost action Hillslope position

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
132A	Galoo loam, 0 to 3 percent slopes, rocky	Very limited	Galoo 95% Depth to hard bedrock Low strength Frost action Hillslope position Slope shape across Nuhi 4% Depth to hard bedrock Depth to saturated zone Steel corrosion Frost action Hillslope position
132B	Galoo loam, 3 to 8 percent slopes, rocky	Very limited	Galoo 95% Depth to hard bedrock Low strength Frost action Hillslope position Slope shape across Nuhi 4% Depth to hard bedrock Depth to saturated zone Steel corrosion Frost action Hillslope position
134A	Camillus silt loam, 0 to 3 percent slopes	Very limited	Camillus 95% Depth to hard bedrock Frost action Hillslope position Slope shape across Low strength Angola 5% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength
134B	Camillus silt loam, 3 to 8 percent slopes	Very limited	Camillus 95% Depth to hard bedrock Frost action Hillslope position Slope shape across Low strength Angola 5% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength
151C	Willdin-Norchip complex, 3 to 15 percent slopes	Somewhat limited	Willdin 60% Depth to saturated zone Steel corrosion Frost action Large stones Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
152B	Valois gravelly loam, 3 to 8 percent slopes	Somewhat limited	Valois 85% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Mardin 5% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
152C	Valois gravelly loam, 8 to 15 percent slopes	Somewhat limited	Valois 85% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position Mardin 5% Steel corrosion Depth to saturated zone Slope Slope direction and gradient Frost action
152D	Valois gravelly loam, 15 to 25 percent slopes	Very limited	Valois 85% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Cadosia 6% Slope Large stones Steel corrosion Slope direction and gradient Frost action Mardin 6% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Volusia 3% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
152E	Valois gravelly loam, 25 to 35 percent slopes	Very limited	Valois 85% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Cadosia 6% Slope Large stones Steel corrosion Slope direction and gradient Frost action Mardin 6% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Towerville, extremely stony 3% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone
153B	Valois gravelly loam, cool, 3 to 8 percent slopes	Somewhat limited	Valois, cool 85% Steel corrosion Frost action Hillslope position Slope shape across Slope direction and gradient Willdin 5% Steel corrosion Depth to saturated zone Frost action Large stones Hillslope position
153C	Valois gravelly loam, cool, 8 to 15 percent slopes	Somewhat limited	Valois, cool 85% Steel corrosion Slope Slope direction and gradient Frost action Hillslope position Willdin 5% Steel corrosion Depth to saturated zone Slope Slope direction and gradient Frost action

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
153D	Valois gravelly loam, cool, 15 to 25 percent slopes	Very limited	Valois, cool 85% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Rockrift 6% Slope Large stones Slope direction and gradient Frost action Steel corrosion Willdin 6% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Ontusia 3% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient
153E	Valois gravelly loam, cool, 25 to 35 percent slopes	Very limited	Valois, cool 85% Slope Steel corrosion Slope direction and gradient Frost action Hillslope position Rockrift 6% Slope Large stones Slope direction and gradient Frost action Steel corrosion Willdin 6% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Ischua 3% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone
162B	Willdin channery silt loam, 3 to 8 percent slopes	Somewhat limited	Willdin 85% Depth to saturated zone Steel corrosion Frost action Hillslope position Slope shape across Lewbath 5% Steel corrosion Slope Slope direction and gradient Frost action Large stones

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
162C	Willdin channery silt loam, 8 to 15 percent slopes	Somewhat limited	Willdin 85% Depth to saturated zone Steel corrosion Slope Slope direction and gradient Frost action
162D	Willdin channery silt loam, 15 to 25 percent slopes	Very limited	Willdin 80% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action Lewbath 10% Slope Steel corrosion Slope direction and gradient Frost action Large stones Mongaup 5% Slope Depth to hard bedrock Large stones Slope direction and gradient Frost action Ontusia 5% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient
168A	Ontusia channery silt loam, 0 to 3 percent slopes	Very limited	Ontusia 88% Depth to saturated zone Frost action Steel corrosion Norchip 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Gretor 2% Frost action Depth to hard bedrock Depth to saturated zone Large stones Steel corrosion
168B	Ontusia channery silt loam, 3 to 8 percent slopes	Very limited	Ontusia 90% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Norchip 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
168C	Ontusia channery silt loam, 8 to 15 percent slopes	Very limited	Ontusia 90% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient Norchip 5% Depth to saturated zone Frost action Slope shape across Steel corrosion Slope direction and gradient Willdin 5% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action
168D	Ontusia channery silt loam, 15 to 25 percent slopes	Very limited	Ontusia 90% Slope Depth to saturated zone Frost action Steel corrosion Slope direction and gradient Willdin 7% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action Norchip 3% Depth to saturated zone Frost action Slope shape across Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
171C	Lordstown-Manlius-Towerville complex, 8 to 15 percent slopes, very stony	Very limited	Lordstown, very stony 40% Depth to hard bedrock Steel corrosion Slope Slope direction and gradient Frost action Towerville, very stony 20% Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Slope Manlius, very stony 20% Large stones Steel corrosion Slope Slope direction and gradient Frost action Cadosia, very stony 10% Large stones Steel corrosion Slope Slope direction and gradient Frost action Arnot, very stony 5% Depth to hard bedrock Large stones Steel corrosion Slope Slope direction and gradient
171D	Lordstown-Manlius-Towerville complex, 15 to 25 percent slopes, very stony	Very limited	Lordstown, very stony 40% Depth to hard bedrock Slope Steel corrosion Slope direction and gradient Frost action Manlius, very stony 20% Slope Large stones Steel corrosion Slope direction and gradient Frost action Towerville, very stony 20% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Cadosia, very stony 10% Slope Large stones Steel corrosion Slope direction and gradient Frost action Arnot, very stony 5% Depth to hard bedrock Slope Large stones Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
171E	Lordstown-Manlius-Towerville complex, 25 to 35 percent slopes, extremely stony	Very limited	Lordstown, extremely stony 40% Depth to hard bedrock Slope Steel corrosion Slope direction and gradient Frost action Towerville, extremely stony 20% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Manlius, extremely stony 20% Slope Large stones Steel corrosion Slope direction and gradient Frost action Cadosia, extremely stony 10% Slope Large stones Steel corrosion Slope direction and gradient Frost action Arnot, very stony 5% Depth to hard bedrock Slope Large stones Steel corrosion Slope direction and gradient Mardin, extremely stony 5% Slope Depth to saturated zone Steel corrosion Slope direction and gradient Frost action

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
171F	Lordstown-Manlius-Towerville complex, 35 to 80 percent slopes, extremely stony	Very limited	Lordstown, extremely stony 40% Depth to hard bedrock Slope Steel corrosion Slope direction and gradient Frost action Towerville, extremely stony 20% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Manlius, extremely stony 20% Slope Large stones Steel corrosion Slope direction and gradient Frost action Arnot, extremely stony 10% Depth to hard bedrock Slope Large stones Steel corrosion Slope direction and gradient Cadosia, extremely stony 10% Slope Large stones Steel corrosion Slope direction and gradient Frost action
177A	Norchip silt loam, 0 to 3 percent slopes	Very limited	Norchip 85% Depth to saturated zone Frost action Slope shape across Steel corrosion Low strength Norchip, very poorly drained 10% Ponding Depth to saturated zone Frost action Steel corrosion Slope shape across Ontusia 5% Depth to saturated zone Frost action Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
177B	Norchip silt loam, 3 to 8 percent slopes	Very limited	Norchip 85% Depth to saturated zone Frost action Slope shape across Steel corrosion Slope direction and gradient Norchip, very poorly drained 10% Ponding Depth to saturated zone Frost action Steel corrosion Slope shape across Ontusia 5% Depth to saturated zone Frost action Steel corrosion Slope Slope direction and gradient
181B	Mongaup-Ischua complex, 3 to 8 percent slopes	Very limited	Mongaup 45% Depth to hard bedrock Steel corrosion Large stones Frost action Slope shape across Ischua 40% Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Frost action Rockrift 10% Large stones Frost action Steel corrosion Slope shape across Hillslope position Gretor 2% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
181C	Mongaup-Ischua complex, 8 to 15 percent slopes	Very limited	Mongaup 45% Depth to hard bedrock Steel corrosion Slope Large stones Slope direction and gradient Ischua 40% Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Slope Rockrift 10% Large stones Slope Slope direction and gradient Frost action Steel corrosion Gretor 2% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope
181D	Mongaup-Ischua complex, 15 to 25 percent slopes, very stony	Very limited	Mongaup, very stony 45% Slope Depth to hard bedrock Steel corrosion Large stones Slope direction and gradient Ischua, very stony 40% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Rockrift 10% Slope Large stones Slope direction and gradient Frost action Steel corrosion Willdin 3% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Gretor 2% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
181E	Mongaup-Ischua complex, 25 to 35 percent slopes, extremely stony	Very limited	Mongaup, extremely stony 45% Slope Depth to hard bedrock Steel corrosion Large stones Slope direction and gradient Ischua, extremely stony 40% Slope Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Rockrift 10% Slope Large stones Slope direction and gradient Frost action Steel corrosion Willdin 3% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Gretor 2% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion
182B	Mongaup channery loam, 3 to 8 percent slopes	Very limited	Mongaup 75% Depth to hard bedrock Large stones Frost action Slope shape across Hillslope position Rockrift 10% Large stones Frost action Steel corrosion Slope shape across Hillslope position Ischua 5% Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Frost action Gretor 2% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope direction and gradient

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
182C	Mongaup channery loam, 8 to 15 percent slopes	Very limited	Mongaup 75% Depth to hard bedrock Large stones Slope Slope direction and gradient Frost action Rockrift 10% Large stones Slope Slope direction and gradient Frost action Steel corrosion Ischua 5% Depth to hard bedrock Large stones Steel corrosion Depth to saturated zone Slope Gretor 2% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope
201A	Lima loam, 0 to 3 percent slopes	Somewhat limited	Lima 85% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Honeoye 5% Frost action Hillslope position Slope shape across Cazenovia 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
201B	Lima loam, 3 to 8 percent slopes	Somewhat limited	Lima 85% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Honeoye 6% Frost action Hillslope position Slope shape across Cazenovia 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
201C	Lima loam, 8 to 15 percent slopes	Somewhat limited	Lima 85% Steel corrosion Frost action Slope direction and gradient Depth to saturated zone Slope Honeoye 7% Frost action Slope direction and gradient Slope Hillslope position Slope shape across Cazenovia 2% Steel corrosion Depth to saturated zone Frost action Slope direction and gradient Slope
204A	Lima loam, 0 to 3 percent slopes, lower clay surface	Somewhat limited	Lima 85% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Honeoye 5% Frost action Hillslope position Slope shape across Cazenovia 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
204B	Lima loam, 3 to 8 percent slopes, lower clay surface	Somewhat limited	Lima 85% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across Honeoye 6% Frost action Hillslope position Slope shape across Cazenovia 2% Steel corrosion Depth to saturated zone Frost action Hillslope position Slope shape across
210A	Phelps gravelly silt loam, 0 to 3 percent slopes	Very limited	Phelps 85% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across Homer 5% Frost action Depth to saturated zone Steel corrosion

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
210B	Phelps gravelly silt loam, 3 to 8 percent slopes	Very limited	Phelps 85% Frost action Steel corrosion Depth to saturated zone Hillslope position Slope shape across Homer 5% Frost action Depth to saturated zone Steel corrosion
212A	Nuhi silt loam, 0 to 3 percent slopes	Very limited	Nuhi 85% Depth to hard bedrock Depth to saturated zone Steel corrosion Frost action Hillslope position Farmington 10% Depth to hard bedrock Frost action Hillslope position Slope shape across Nuhi, poorly drained 5% Depth to saturated zone Depth to hard bedrock Frost action Steel corrosion Hillslope position
240B	Aurora-Angola silt loams, 3 to 8 percent slopes	Very limited	Aurora 60% Frost action Depth to hard bedrock Steel corrosion Depth to saturated zone Hillslope position Angola 30% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength Darien 5% Frost action Depth to saturated zone Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
240C	Aurora-Angola silt loams, 8 to 15 percent slopes	Very limited	Aurora 60% Frost action Depth to hard bedrock Steel corrosion Slope Depth to saturated zone Angola 30% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength Darien 5% Frost action Depth to saturated zone Steel corrosion Slope Slope direction and gradient
240D	Aurora-Angola silt loams, 15 to 25 percent slopes	Very limited	Aurora 60% Slope Frost action Depth to hard bedrock Steel corrosion Depth to saturated zone Angola 30% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Darien 5% Slope Frost action Depth to saturated zone Steel corrosion Slope direction and gradient Danley 5% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action
241B	Aurora silt loam, 3 to 8 percent slopes	Very limited	Aurora 85% Frost action Depth to hard bedrock Steel corrosion Depth to saturated zone Hillslope position Angola 10% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
241C	Aurora silt loam, 8 to 15 percent slopes	Very limited	Aurora 85% Frost action Depth to hard bedrock Steel corrosion Slope Depth to saturated zone Angola 8% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Slope
241D	Aurora silt loam, 15 to 25 percent slopes	Very limited	Aurora 85% Slope Frost action Depth to hard bedrock Steel corrosion Depth to saturated zone Danley 10% Slope Steel corrosion Depth to saturated zone Slope direction and gradient Frost action Angola 5% Slope Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion
255B	Cazenovia silt loam, 3 to 8 percent slopes	Somewhat limited	Cazenovia 85% Steel corrosion Frost action Depth to saturated zone Shrink-swell Low strength Cayuga 5% Low strength Steel corrosion Frost action Depth to saturated zone Hillslope position
255C	Cazenovia silt loam, 8 to 15 percent slopes	Somewhat limited	Cazenovia 85% Slope Steel corrosion Slope direction and gradient Frost action Depth to saturated zone Cayuga 8% Low strength Slope Steel corrosion Slope direction and gradient Frost action

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
255D	Cazenovia silt loam, 15 to 25 percent slopes	Very limited	Cazenovia 85% Slope Steel corrosion Slope direction and gradient Frost action Depth to saturated zone Cayuga 10% Slope Low strength Steel corrosion Slope direction and gradient Frost action Ovid 5% Frost action Depth to saturated zone Steel corrosion Slope direction and gradient Slope
260B	Cayuga silt loam, 3 to 8 percent slopes	Somewhat limited	Cayuga 85% Low strength Steel corrosion Frost action Depth to saturated zone Hillslope position
260C	Cayuga silt loam, 8 to 15 percent slopes	Somewhat limited	Cayuga 85% Low strength Steel corrosion Frost action Hillslope position Depth to saturated zone
260D	Cayuga silt loam, 15 to 25 percent slopes	Very limited	Cayuga 85% Slope Low strength Steel corrosion Slope direction and gradient Frost action Lansing 10% Slope Slope direction and gradient Frost action Slope shape across Hillslope position Schoharie 5% Slope Low strength Steel corrosion Slope direction and gradient Frost action

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
304A	Kendaia loam, 0 to 3 percent slopes	Very limited	Kendaia 85% Depth to saturated zone Frost action Steel corrosion Lyons 5% Depth to saturated zone Frost action Steel corrosion Slope shape across Ovid 2% Frost action Depth to saturated zone Steel corrosion Low strength Shrink-swell Churchville 2% Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell
304B	Kendaia loam, 3 to 8 percent slopes	Very limited	Kendaia 85% Depth to saturated zone Frost action Steel corrosion Lyons 4% Depth to saturated zone Frost action Steel corrosion Slope shape across Churchville 2% Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell Ovid 2% Frost action Depth to saturated zone Steel corrosion Low strength Shrink-swell
342A	Angola silt loam, 0 to 3 percent slopes	Very limited	Angola 90% Frost action Depth to hard bedrock Depth to saturated zone Steel corrosion Low strength Darien 5% Frost action Depth to saturated zone Steel corrosion Low strength Ilion 5% Depth to saturated zone Frost action Low strength Slope shape across Steel corrosion

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
356A	Ovid silt loam, 0 to 3 percent slopes	Very limited	Ovid 85% Frost action Depth to saturated zone Steel corrosion Low strength Shrink-swell Odessa 10% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Lakemont 5% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across
356B	Ovid silt loam, 3 to 8 percent slopes	Very limited	Ovid 85% Frost action Depth to saturated zone Steel corrosion Low strength Shrink-swell Odessa 10% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Lakemont 5% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across
357B	Ovid silty clay loam, 3 to 8 percent slopes	Very limited	Ovid 85% Frost action Depth to saturated zone Steel corrosion Low strength Shrink-swell Odessa 10% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Lakemont 5% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across

Solar Arrays, Soil-based Anchor Systems

Aggregation Method: Dominant Condition
Tie-break Rule: Higher

Ontario County, New York
Survey Area Version and Date: 23 - 09/05/2023

Map symbol	Map unit name	Rating	Component name and % composition Rating reasons
357C	Ovid silty clay loam, 8 to 15 percent slopes	Very limited	Ovid 85% Frost action Depth to saturated zone Steel corrosion Slope direction and gradient Low strength Odessa 10% Frost action Low strength Depth to saturated zone Steel corrosion Shrink-swell Lakemont 5% Depth to saturated zone Low strength Frost action Shrink-swell Slope shape across
400A	Udorthents, loamy, 0 to 3 percent slopes	Somewhat limited	Udorthents, loamy 80% Frost action Hillslope position Howard 5% Steel corrosion Frost action Hillslope position Slope shape across Ontario 5% Frost action Hillslope position Slope shape across Slope direction and gradient Palmyra 5% Steel corrosion Frost action Hillslope position Slope shape across Lima 5% Steel corrosion Frost action Depth to saturated zone Hillslope position Slope shape across
401D	Udorthents, refuse substratum. 0 to 25 percent slopes	Not rated	Udorthents, refuse substratum 90%
PG	Pits, gravel and sand	Not rated	Pits, gravel and sand 75%
PQ	Pits, quarry	Not rated	Pits, quarry 80%
W	Water	Not rated	Water 100%

Attribute Name: Solar Arrays, Soil-based Anchor Systems

ENG - Engineering

Ground-based Solar Arrays, Soil-penetrating Anchor Systems

Ground-based solar arrays are sets of photovoltaic panels that are not situated on a building or pole. These installations consist of a racking system that holds the panel in the desired orientation and the foundation structures that hold the racking system to the ground. Two basic methods are used to hold the systems to the ground, based on site conditions and cost. One method employs driven piles, screw augers, or concrete piers that penetrate into the soil to provide a stable foundation. The ease of installation and general site suitability of soil-penetrating anchoring systems depends on soil characteristics such as rock fragment content, soil depth, soil strength, soil corrosivity, shrink-swell tendencies, and drainage. The other basic anchoring system utilizes precast ballasted footings or ballasted trays on the soil surface to make the arrays too heavy to move. The site considerations that impact both basic systems are slope, slope aspect, wind speed, land surface shape, flooding, and ponding. Other factors that will contribute to the function of a solar power array include daily hours of sunlight and shading from hills, trees or buildings.

Soil-penetrating anchoring systems can be used where the soil conditions are not limited. Installation of these systems requires some power equipment for hauling components and either driving piles, turning helices, or boring holes to install the anchoring apparatus.

Soils can be a non-member, partial member or complete members of the set of soils that are limited for "Ground-based Solar Panel Arrays". If a soil's property within 150 cm (60 inches) of the soil surface has a membership indices greater than zero, then that soil property is limiting and the soil restrictive feature is identified. The overall interpretive rating assigned is the maximum membership indices of each soil interpretive property that comprise the "Ground-based Solar Panel Array" interpretive rule. Minor restrictive soil features are identified but not considered as part of the overall rating process. These restrictive features could be important factors where the major restrictive features are overcome through design application.

Soils are placed into interpretive rating classes per their rating indices. These are not limited (rating index = 0), somewhat limited (rating index greater than 0 and less than 1.0), or very limited (rating index = 1.0).

Numerical ratings indicate the degree of limitation. The ratings are shown in decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil has the least similarity to a good site (1.00) and the point at which the soil feature is very much like known good sites (0).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

References:

Canada, S. 2012. Corrosion impacts on steel piles. Solarpro. Solarprofessional.com.

Romanoff, Melvin. 1962. Corrosion of Steel Pilings in Soils. Journal of Research of the National Bureau of Standards. (Volume 66C, No. 3). July/September, 1962.

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value to represent the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. The components in the map unit name represent the major soils within a map unit delineation. Minor components make up the balance of the map unit. Great differences in soil properties can occur between map unit components and within short distances. Minor components may be very different from the major components. Such differences could significantly affect use and management of the map unit. Minor components may or may not be documented in the database. The results of aggregation do not reflect the presence or absence of limitations of the components which are not listed in the database. An on-site investigation is required to identify the location of individual map unit components.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that

the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be generated. Aggregation must be done because, on any soil map, map units are delineated but components are not.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.