What is claimed is:

1. A system for installing an aggregate pier in a soil matrix, the system comprising:

a pipe extending along a pipe axis between a distal end and a proximal end, the pipe defining a bore extending therethrough along the pipe axis, the pipe having a first opening proximate to the distal end of the pipe, the first opening in fluid communication with the bore, the pipe having a second opening remote from the distal end, the second opening in fluid communication with the bore, the first opening, second opening, and bore in fluid communication such that an aggregate for forming the aggregate pier can pass through the second opening, the bore, and the first opening;

an area of the pipe remote from the distal end of the pipe configured to interface with a torque driver for rotating the pipe about the pipe axis, the pipe being rotatable in a first direction about the pipe axis, and the pipe being rotatable in a second direction about the pipe axis, the second direction being opposite the first direction;

a helix disposed on the pipe between the second opening and the distal end, the helix extending along at least a portion of an outer surface of the pipe, the helix extending radially from the pipe axis between the outer surface of the pipe to an outer edge of the helix, the helix configured such that when the helix is received in a soil matrix and the pipe is rotated in the first direction the helix imparts an axial force on the pipe in the direction of the distal end of the pipe thereby advancing the pipe into the soil matrix, and the helix further configured such that when the helix is received in a soil matrix and the pipe is rotated in the second direction the helix imparts an axial force on the pipe in the direction of the proximal end of the pipe thereby withdrawing the pipe from the soil matrix;

a compacting device fixed relative to the pipe and positioned between the distal end of the pipe and a bottom surface of the helix, the compacting device

defining a compacting surface extending radially outward from the outer surface of the pipe and extending upward in a direction of the proximal end of the pipe, the compacting surface configured to impart an axial force and a radial force on soil matrix adjacent thereto when the pipe is rotated in the first direction.

2. The system for installing an aggregate pier in a soil matrix according to claim 1, wherein the helix extends along the outer surface of the pipe for at least one pitch of the helix.

3. The system for installing an aggregate pier in a soil matrix according to claim 2, wherein the compacting device extends substantially around the outside surface of the pipe in a plane substantially perpendicular to the pipe axis.

4. The system for installing an aggregate pier in a soil matrix according to claim 3, further comprising:

a cap positioned proximate to the distal end of the pipe, the cap closing the first opening in the pipe when the cap is received on the distal end of the pipe;

wherein the cap is configured to be removed from the position at the distal end of the pipe and placed at the bottom of an aggregate pier formed by the system.

5. The system for installing an aggregate pier in a soil matrix according to claim 3, further comprising:

a control device at the distal end of the pipe, the control device biasable between a first position and a second position, wherein the control device limits the area of the first opening when the control device is biased to the first position relative to the area of the first opening when the control device is biased to the second position;

wherein the control device inhibits flow of the aggregate material through the first opening when the control device is in the first position.

6. The system for installing an aggregate pier in a soil matrix according to claim 5:

wherein the control device is mechanically biased between the first position and the second position by a rotation of the pipe about pipe axis in the soil matrix;

wherein the control device is biased to the first position when the pipe is rotated in the first direction about the pipe axis, thereby reducing the area of the first opening when the pipe is advanced into the soil matrix;

wherein the control device is biased to the second position when the pipe is rotated in the second direction about the pipe axis, thereby increasing the area of the first opening when the pipe is withdrawn from the soil matrix.

7. The system for installing an aggregate pier in a soil matrix according to claim 6, wherein the control device comprises:

a door for affecting the area of the first opening, the door being proximate to the distal end of the pipe and at least partially rotatable about the pipe axis relative to the pipe;

wherein the door reduces the area of the first opening when the pipe is rotated in the first direction about the pipe axis;

wherein the door increases the area of the first opening when the pipe is rotated in the second direction about the pipe axis.

8. The system for installing an aggregate pier in a soil matrix according to claim 7, wherein the control device comprises:

a plate connected to the door and fixed relative thereto, the plate extending distally therefrom;

wherein one or more of the soil matrix or an aggregate adjacent to plate generates a torque on the plate inhibits rotation of the plate and door when the pipe is rotated in one or more of the first direction and the second direction.

9. The system for installing an aggregate pier in a soil matrix according to claim 7, wherein the control device comprises:

a first stop that inhibits rotation of the door relative to the pipe when the first opening is closed during rotation in the first direction;

a second stop that inhibits rotation of the door relative to the pipe when the first opening is open during rotation in the second direction.

10. The system for installing an aggregate pier in a soil matrix according to claim 1, wherein the pipe comprises:

a plurality of sections;

wherein the sections can be combined to increase the length of the pipe.

11. The system for installing an aggregate pier in a soil matrix according to claim 1, wherein the compacting device is configured as a frustrum.

12. A method for installing an aggregate pier in a soil matrix, the method comprising the steps of:

providing a pipe extending along a pipe axis between a distal and a proximal end, the pipe defining a bore extending therethrough along the pipe axis, the pipe having a first opening proximate to the distal end of the pipe, the first opening in fluid communication with the bore, the pipe having a second opening remote from the distal end, the second opening in fluid communication with the bore, the first opening, second opening, and bore in fluid communication such that an aggregate for forming the aggregate pier can pass through the second opening, the bore, and the first opening,

providing a helix disposed on the pipe between the second opening and the distal end, the helix extending along at least a portion of an outer surface of the pipe, the helix extending radially from the pipe axis between the outer surface of the

pipe to an outer edge of the helix, the helix configured such that when the helix is received in a soil matrix and the pipe is rotated in a first direction the helix imparts an axial force on the pipe in the direction of the distal end of the pipe thereby advancing the pipe into the soil matrix, and the helix further configured such that when the helix is received in a soil matrix and the pipe is rotated in the second direction the helix imparts an axial force on the pipe in the direction of the of the proximal end of the pipe thereby withdrawing the pipe out of the soil matrix;

providing a compacting device fixed relative to the pipe and positioned between the distal end of the pipe and a bottom surface of the helix, the compacting device defining a compacting surface extending radially outward from outer surface of the pipe and extending upward in a direction of the proximal end of the pipe, the compacting surface configured to impart an axial force and a radial force on a material adjacent thereto when the pipe is rotated in the first direction;

rotating the pipe in the first direction to the advance the pipe into the soil matrix until the distal end of the pipe reaches a depth of the aggregate pier;

forming a portion of the aggregate pier by the following sequence of steps:

(a) rotating the pipe in the second direction to withdraw a portion of the pipe from the soil matrix thereby creating a void below the distal end of the pipe;

(b) filling the void with aggregate by passing the aggregate through the bore and the first opening and into the void;

(c) rotating the pipe in the first direction so that the compacting device contacts the aggregate disposed in the void and imparts an axial and radial force thereto.

13. The method for installing an aggregate pier in a soil matrix according to claim 12, the method further comprising the steps:

repeating the steps of (a), (b), (c);

wherein the steps are repeated to form the aggregate pier in the soil matrix.

14. The method for installing an aggregate pier in a soil matrix according to claim 13, the method further comprising the steps:

providing a control device at the distal end of the pipe, the control device biasable between a first position and a second position, wherein the control device limits the area of the first opening when the control device is biased to the first position relative to the area of the first opening when the control device is biased to the second position, wherein the control device inhibits flow of the aggregate material through the first opening when the control device is in the first position;

biasing the control device to the first position when the pipe is rotated in the first direction;

biasing the control device to the second position when the pipe is rotated in the second direction.

15. The method for installing an aggregate pier in a soil matrix according to claim 14, wherein the distal end of the pipe moves a distance W along the pipe axis during the step of (a) rotating in the second direction to withdraw pipe, wherein the distal end of the pipe moves a distance A along the pipe axis during the of step (c) of rotating in the first direction advance the pipe into the soil matrix;

wherein the ratio of W to A is greater than 1:1.

16. The method for installing an aggregate pier in a soil matrix according to claim 15, wherein the ratio of W to A is greater than 2:1.

17. The method for installing an aggregate pier in a soil matrix according to claim 16, wherein the ratio of W to A is 3:1.

18. The method for installing an aggregate pier in a soil matrix according to claim 15, wherein each sequence of steps (a), (b), (c) creates a lift in the aggregate pier.

19. The method for installing an aggregate pier according to claim 15, wherein the compacting device is configured as a frustum.