THE CLAIMS:

1. An abutment comprising a first foundation module and at least one successive foundation module,

with the first foundation module comprising:

a plurality of formwork members that define a pair of side walls such that the side walls define a space between the side walls;

a brace that extends between the pair of side walls and is coupled thereto to hold the side walls in a spaced relationship; and

a three dimensional reinforcement cage that includes the brace, a plurality of first members, and a plurality of second members perpendicular to the first members, the first members being coupled to the second members and the brace being coupled to at least one of the plurality of first members and the plurality of second members;

with the or each successive foundation module comprising:

a plurality of formwork members that define a pair of side walls such that the side walls define a space between the side walls;

a brace that extends between the pair of side walls and is coupled thereto to hold the side walls in a spaced relationship; and

a three dimensional reinforcement cage that includes the brace and a plurality of second members,

wherein the plurality of first members of the first foundation module extend beyond the pair of side walls of that module and engage the second members of the or each successive module and thereby locate the or each successive module with the brace of the or each successive module being coupled to at least one of the second members of that module and the first members of the first module;

wherein the reinforcement cages form an internal support within the space between the side walls for receiving a settable material, such that, upon introduction of the settable material, the side walls become integrated with the internal support as the settable material sets, to consolidate the foundation modules to form the abutment.

2. An abutment comprising a first foundation module and at least one successive foundation module layered atop one another to provide a height to the abutment, with each foundation module comprising:

a pair of side walls that define a space therebetween, with the side walls being held apart in a spaced relationship by a plurality of braces that extend between the pair of side walls;

a three dimensional reinforcement cage disposed within the space, the reinforcement cage comprising a plurality of first members that extend between successive modules of the abutment, and a plurality of second members that extend along a length of the abutment parallel to the side walls, the first members being coupled to the second members and the braces being coupled to at least one of the of the first members and the second members,

wherein the first members, second members and braces together form an internal support within the space of the respective modules, such that, upon introduction of a settable material into the space the side walls of the successive modules become integrated with the internal support as the settable material sets, to form the abutment.

3. The abutment of claim 1 or claim 2, further comprising a pair of end plates to enclose a space between the side walls of the modules and form a cavity therebetween.

4. The abutment of any one of claims 1 to 3, wherein the opposing ends of each brace are mechanically attached to both a side wall of the first module and a sidewall of the successive module to retain the modules in alignment within the abutment.

5. The abutment of any one of claims 1 to 4, wherein the internal support is reinforced with ligatures and wherein the ligatures encircle the reinforcement cage either horizontally or vertically within the space between the side walls.

6. A bridge structure including the abutment of any one of claims 1 to 5, with the abutment being formable simultaneously with a portion of a bridge.

7. The abutment of any one of claims 1 to 6, wherein each of the braces comprise first engagement means for cooperating with second engagement means of the respective side walls.

8. The abutment of claim 7, wherein the first engagement means comprises a pair of elongate protrusions configured to be received by the cooperating second engagement means of the side walls.

9. The abutment of claim 7 or claim 8, wherein the cooperating second engagement means of the side walls comprises a series of shaped apertures for receiving the elongate protrusions therein.

10. The abutment of any one of claims 1 to 9, wherein the side walls of each module are configured as C-sections.

11. The abutment of any one of claims 1 to 10, further comprising a plurality of supplemental reinforcing members spaced between the respective pairs of side walls and extending along the length of each of the modules.

12. The abutment of any one of claims 1 to 11, further comprising a base extending between and coupled with a lower portion of the pair of side walls of a lowermost of the modules, wherein the base is configured with a recess thereby reducing a volume of the space.

13. The abutment of any one of claims 1 to 12, comprising a primary wall and at least one end wall, wherein the primary wall and each end wall each comprise at least two successively layered foundation modules and a reinforcement cage, wherein spaces of each wall are in fluid communication with each other such that introduction of the settable material thereto consolidates each wall together.

14. The abutment of claim 13, wherein the reinforcement cage of the or each end wall is interconnected with the reinforcement cage of the primary wall.

15. A method of constructing an abutment according to any one of claims 1 to 14, the method comprising the steps of:

(i) layering the successive modules atop one another, the side walls of each module being held in a spaced apart relationship by respective braces thereof to thereby form the space therebetween;

(ii) constructing the three dimensional reinforcement cage by positioning a pair of the first members perpendicular to the braces within the space such that the pair of first members extend between the successive modules, and positioning a pair of the second members within the space within each respective module parallel to the side walls, and coupling the second members to the first members and coupling the braces to at least one of the first members and the second members such that the cage forms the internal support within the space between the side walls; and

(iii) introducing the settable material into the space to thereby integrate the internal support with the side walls of each module as the settable material sets, to form the abutment.

16. The method of claim 15, further comprising the additional step of:
supporting a portion of a bridge upon the three dimensional cage, the bridge comprising a tray defining a cavity, including a reinforcement truss situated within the cavity, such that the cavity is in fluid communication with the space.

17. The method of claim 16, wherein the settable material is introduced into both the space and the cavity simultaneously to integrate the internal support with the side walls of the structure and integrate the truss with the tray of the bridge as the settable material sets, to form a unitary bridge structure.