

# **SPECIFICATION SHEET NUMBER S-201**

## **MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

2. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

3. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

## **GENERAL NOTES:**

4. The assembly is designed for three foot earth cover based on undrained soil weight of 120 pounds per cubic foot, or a minimum of 360 psf.
5. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
3. Back vent opening through baffle wall shall consist of the open area upper most in the tank. The square inch opening shall run from 115 for the 750 through 1200 gallon size and 134 for the 1500.
6. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210A and ASTM C 990.
7. Internal fittings are fabricated from four inch UPC listed PVC pipe and fittings conforming to ASTM D 2729, D 3034, and F 789. Pipe shall conform to ASTM D 2729.
8. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional information, see Pro-Cast Products Specification Sheet No. S-249.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-202**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

9. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

10. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

11. The assembly is designed for eight foot earth cover or H-20 vehicular loading when manholes are not extended to grade or are isolated from direct transmission of vehicle loads. Earth load design assumption is for undrained soil with a unit weight of 120 psi.
12. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
3. Back vent opening through baffle wall shall consist of the open area upper most in the tank. The square inch opening shall run from 115 for the 750 through 1200 gallon size and 134 for the 1500.
13. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990.
14. Internal fittings are fabricated from four inch UPC listed PVC pipe and fittings conforming to ASTM D 2729, D 3034 and F 789. Pipe shall conform to ASTM D 2729.

15. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Products Sheet No. 249.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-203**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

16. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

17. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

18. Design is for installation in a parking or service traffic area. Installations where highway impact loading is anticipated, a traffic pavement slab shall be installed to isolate the tank from direct impact loading.
2. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
19. Back vent opening through the baffle shall be minimum of 25 square inches.
4. Tank body to joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Tank extensions and/or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990
20. Internal fittings are fabricated from four inch UPC listed PVC pipe and fittings conforming to ASTM D 2729, D 3034, and F 789. Pipe shall conform to ASTM D 2729.

6. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Product Specification Sheet No. 249.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-204**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

21. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

22. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

1. The assembly is designed for three foot earth cover base on undrained soil weight of 120 pounds per cubic foot, or a minimum of 360 psf.
23. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
3. Back vent opening through the baffle shall be a minimum of 25 square inches.
24. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C990.
25. Internal fittings are fabricated from four inch UPC listed PVC pipe and fittings conforming to ASTM D 2729, D 3034, and F 789. Pipe shall conform to ASTM D 2729.

6. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Products Specification Sheet No. 249.
26. Flow area opening shall maintain a minimum of fifty percent of the liquid profile open. Opening shall be located to maximize the movement of material at the liquid surface.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-205**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

27. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

28. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

29. The assembly is designed for eight foot earth cover or H-20 vehicular loading when manholes are not extended to grade or are isolated from direct transmission of vehicle loads. Earth load designed assumption is for undrained soil with a unit weight of 120 psi.
30. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
3. Back vent opening through the baffle shall be a minimum of 25 square inches.
31. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Tank extensions and/or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990.

32. Internal fittings are fabricated from four inch UPC listed PVC pipe and fittings conforming to ASTM D 2729, D 3034, and F 789. Pipe shall conform to ASTM D 2729.
33. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Product Specification Sheet No. 249.
34. Flow area opening shall maintain a minimum of fifty percent of the liquid profile open. Opening shall be located to maximize the movement of material at the liquid surface.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-206**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

35. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

36. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

37. The assembly is designed for direct H-20 vehicle loading of manhole extensions.
2. Designed is for installation in a parking or service traffic area. Installations where highway impact loading is anticipated, a traffic pavement slab shall be installed to isolate the tank from direct impact loading.
38. Manhole extensions to grade are optionally available per Pro-Cast Drawing No. 1103.
4. Back vent opening through the baffle shall be a minimum of 25 square inches.

39. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Tank extensions and/or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990.
40. Internal fittings are fabricated from four inch UPC listed PVC pipe and fittings conforming to ASTM D 2729, D 3034, and F 789. Pipe shall conform to ASTM C 990.
7. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Product Specification Sheet No.249.
8. Flow area opening shall maintain a minimum of fifty percent of the liquid profile open. Opening shall be located to maximize the movement of material at the liquid surface.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-207**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

41. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

42. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

43. The assembly is designed for three foot earth cover based on undrained soil weight of 120 pounds per cubic foot, or a minimum of 360 psf.

44. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
3. Back vent opening through baffle wall shall consist of the open area upper most in the tank. The square inch opening shall run from 115 for the 750 through 1200 gallon size and 134 for the 1500.
45. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Tank extensions and/or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990.
46. Internal fittings are fabricated from schedule 40 DWV ABS pipe and fittings. Fittings shall conform to ASTM D 2661, D 3311, and Ansi 119.1 and A119.2.
47. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Product Specification Sheet No. 250.
48. As required, an optionally available watertight seal may be requested. The seal shall be made from two-part polyurethane sealant providing a watertight, flexible, resilient, tear-resistant seal. Material shall conform to TT-S-227e and USAS1 A 116.1. Seal shall be suitable to withstand 5.6 psi static water pressure. Cured material shall obtain a hardness of 30 Shore A, elongation ability of 750 percent.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-208**

**MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airentaining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

49. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

50. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

51. The assembly is designed for three foot earth cover based on undrained soil weight of 120 pounds per cubic foot, or a minimum of 360 psf.
52. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
3. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1131.
53. Back vent opening through baffle wall shall consist of the open area upper most in the tank. The square inch opening shall run from 115 for the 750 through 1200 gallon size and 134 for the 1500.
54. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Tank extensions and or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990.
55. Internal fittings are fabricated from schedule 40 DWV ABS pipe and fittings. Fittings shall conform to ASTM D 2661, D 3311, and ANSI 119.1 and A119.2.
7. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Product Specification Sheet No. 250.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-208**

56. As required, an optionally available watertight seal may be requested. The seal shall be made from two-part polyurethane sealant providing a watertight, flexible, resilient, tear-resistant seal. Material shall conform to TT-S-227e and USAS1 A 116.1. Seal shall be suitable to withstand 5.6 psi static water pressure. Cured material shall obtain a hardness of 30 Shore A, elongation ability of 750 percent.

***PRO-CAST PRODUCTS INC.***

# **SPECIFICATION SHEET NUMBER S-209**

## **MATERIAL SPECIFICATIONS:**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

57. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

58. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

## **GENERAL NOTES:**

1. The assembly is designed for eight foot earth cover or H-20 vehicular loading when manholes are not extended to grade or are isolated from direct transmission of vehicle loads. Earth load design assumption is for undrained soil with a unit weight of 120 pcf.
59. Manhole extensions to grade are optionally available per Pro-Cast Drawing No. 1103.
3. Back vent opening through baffle wall shall consist of the open area upper most in the tank. The square inch opening shall run from 115 for the 750 through 1200 gallon size and 134 for the 1500.
60. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Tank extensions and/or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S 210A and ASTM C 990.
61. Internal fittings are fabricated from schedule 40 DWV ABS pipe and fittings. Fittings shall conform to ASTM D 2661, D 3311, and ANSI 119.1 and A119.2.
62. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Products Specification Sheet No. 250.

63. As required, an optionally available watertight seal may be requested. The seal shall be made from two-part polyurethane sealant providing a watertight, flexible, resilient, tear-resistant seal. Material shall conform to TT-S-227e and USAS1 A 116.1. Seal shall be suitable to withstand 5.6 psi static water pressure. Cured material shall obtain a hardness of 30 Shore A, elongation ability of 750 percent.

***PRO-CAST PRODUCTS INC.***

**SPECIFICATION SHEET NUMBER S-210**

**MATERIAL SPECIFICATIONS**

1. CONCRETE - Concrete shall have a minimum 28 day compressive strength of 4000 psi. The mix shall be so designed as to produce a minimum 24 hour strength of 1250 psi. Test method shall conform to ASTM standard C-39. The concrete mix shall conform to the current edition of the following ASTM standards:

C 33	Concrete Aggregates	C 260	Airetraining Admixtures
C 94	Ready-mixed	C 494	Chemical Admixtures
C 150	Portland Cement		

Concrete shall contain a minimum of six sacks of Type II Portland Cement. Although strength and other requirement may be met with a lesser cement content due to the possibility of acidic nature of the contents and the desired watertight integrity, a cement mix is necessary.

64. STEEL REINFORCEMENT - Structural reinforcing shall consist of No. 5 Grade 40 bar , with secondary reinforcing No. 3 Grade 40 bar. Deformed reinforcing bar and fabricated mats shall conform to the current editions of the following ASTM standards.

A 184 Fabricated Deformed Steel Bar Mat  
A 615 Deformed Plain Billet-Steel Reinforcing bar

65. SECONDARY REINFORCEMENT - (Optionally used per manufacturer's discretion). Three dimensional secondary reinforcement shall be synthetic fiber. Fiber shall be so designed so as to increase early strength, compressive strength, impact resistance and reduce absorption. Rate of addition shall be per manufacturer's recommendations.

**GENERAL NOTES:**

66. The assembly is designed for eight foot earth cover or H-20 vehicular loading when manholes are not extended to grade or are isolated from direct transmission of vehicle loads. Earth load design assumption is for undrained soil with a unit weight of 120 pcf.
67. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1103.
68. Manhole extensions to grade are optionally available per Pro-Cast Products Drawing No. 1131.
4. Back vent opening through baffle wall shall consist of the open area upper most in the tank. The square inch opening shall run from 115 for the 1200 gallon size and 134 for the 1500.

69. Tank body to cap joint sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S210A and ASTM C 990. Tank extensions and/or manhole extensions sealed with butyl rubber joint sealant to produce seal against passing ground water. Sealant shall conform to SS-S-210, SS-S-210A and ASTM C 990.
6. Internal fittings are fabricated from schedule 40 DWV ABS pipe and fittings. Fittings shall conform to ASTM D 2661, D 3311, and ANSI 119.1 and A119.2.
70. Inlet and outlet fittings shall penetrate exterior walls through low pressure synthetic pipe seal. For additional seal information, see Pro-Cast Products Specification Sheet No. 250.
71. As required, an optionally available watertight seal may be requested. The seal shall be made from two-part polyurethane sealant providing a watertight, flexible, resilient, tear-resistant seal. Material shall conform to TT-S-227e and USAS1 A 116.1. Seal shall be suitable to withstand 5.6 psi static water pressure. Cured material shall obtain a hardness of 30 Shore A, elongation ability of 750 percent.

***PRO-CAST PRODUCTS INC.***