

# VERSA™ SERIES

## Multiple-Radius



**Nominal Bridge Unit Length:**  
 VM17-VM31: 8'-0"  
 VM33-VM48: 6'-0"  
 VM55-VM66: 4'-0"  
 VM72T-VM84T: 6'-0"

**VM17**

SPAN	RISE	WATERWAY AREA (SF)
13'	4'-0 7/8"	37
14'	4'-11 5/8"	49
15'	6'-1 1/8"	66
16'	7'-8 3/8"	91
17'	12'-4 1/8"	168

**VM24**

SPAN	RISE	WATERWAY AREA (SF)
15'	3'-3 1/2"	36
16'	3'-11 1/2"	46
17'	4'-8 1/8"	58
18'	5'-5 1/2"	72
19'	6'-3 5/8"	87
20'	7'-2 7/8"	106
21'	8'-3 1/4"	127
22'	9'-5 1/2"	152
23'	10'-10 1/4"	184
24'	12'-7 1/4"	225

**VM26**

SPAN	RISE	WATERWAY AREA (SF)
17'	3'-3 1/2"	42
18'	3'-11 1/2"	54
19'	4'-8 1/8"	67
20'	5'-5 1/2"	83
21'	6'-3 5/8"	100
22'	7'-2 7/8"	120
23'	8'-3 1/4"	143
24'	9'-5 1/2"	171
25'	10'-10 1/4"	205
26'	12'-7 1/4"	250

**VM31**

SPAN	RISE	WATERWAY AREA (SF)
24'	4'-2 1/2"	74
25'	4'-9 1/4"	86
26'	5'-4 3/4"	102
27'	6'-1 1/2"	122
28'	6'-11 3/4"	146
29'	8'-0 3/8"	176
30'	9'-5 1/2"	218
31'	12'-2 5/8"	302

**VM33**

SPAN	RISE	WATERWAY AREA (SF)
27'	5'-1 1/8"	99
28'	5'-8 3/4"	117
29'	6'-5 1/2"	138
30'	7'-3 7/8"	163
31'	8'-4 3/4"	196
32'	9'-10 1/2"	243
33'	13'-0"	344

**VM38**

SPAN	RISE	WATERWAY AREA (SF)
32'	4'-10 5/8"	116
33'	5'-5 5/8"	135
34'	6'-1 1/2"	157
35'	6'-10 5/8"	182
36'	7'-9 5/8"	215
37'	8'-11 3/8"	257
38'	10'-7 3/8"	320

**VM41**

SPAN	RISE	WATERWAY AREA (SF)
34'	4'-11 1/8"	122
35'	5'-5 1/2"	140
36'	6'-0 3/4"	162
37'	6'-9"	187
38'	7'-6 3/4"	217
39'	8'-6 1/2"	255
40'	9'-9 7/8"	305
41'	11'-11 3/8"	392

**VM44**

SPAN	RISE	WATERWAY AREA (SF)
37'	5'-6 3/4"	148
38'	6'-1 1/2"	169
39'	6'-9 1/8"	194
40'	7'-6"	223
41'	8'-4 3/8"	258
42'	9'-5 1/4"	303
43'	10'-11"	366
44'	13'-0"	456

**VM48**

SPAN	RISE	WATERWAY AREA (SF)
42'	6'-7 1/4"	194
43'	7'-2"	219
44'	7'-9 5/8"	247
45'	8'-6 3/8"	279
46'	9'-4 5/8"	318
47'	10'-5 3/8"	368
48'	11'-10 7/8"	437

**VM55**

SPAN	RISE	WATERWAY AREA (SF)
49'	7'-0 1/4"	248
50'	7'-7 1/2"	278
51'	8'-3 7/8"	313
52'	9'-1 5/8"	355
53'	10'-1 3/8"	407
54'	11'-4 7/8"	476
55'	13'-0"	563

**VM60**

SPAN	RISE	WATERWAY AREA (SF)
55'	7'-5 1/2"	303
56'	8'-1 1/2"	339
57'	8'-10 3/4"	383
58'	9'-9 3/4"	436
59'	10'-11 3/4"	504
60'	12'-8 1/2"	607

**VM66**

SPAN	RISE	WATERWAY AREA (SF)
61'	8'-5 3/8"	372
62'	9'-1 1/8"	412
63'	9'-10 1/8"	458
64'	10'-8 3/4"	515
65'	11'-10 1/8"	586
66'	13'-4 7/8"	689

**VM72T**

SPAN	RISE	WATERWAY AREA (SF)
67'	13.76	688'
68'	14.77	756'
69'	15.57	811'
70'	16.73	892'
71'	18.26	1000'
72'	21.44	1227'

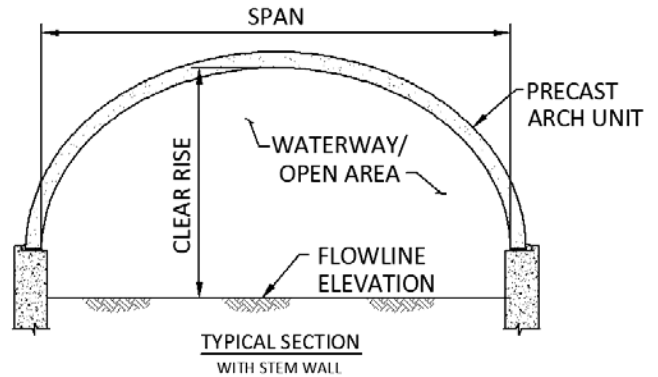
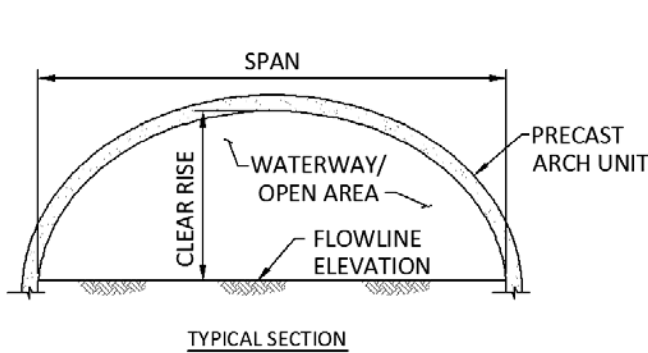
**VM78T**

SPAN	RISE	WATERWAY AREA (SF)
72'	14'-5 1/2"	775
73'	15'-3"	832
74'	16'-1 1/2"	896
75'	17'-1 1/2"	971
76'	18'-4 1/4"	1063
77'	19'-11 1/4"	1185
78'	23'-2 3/4"	1440

**VM84T**

SPAN	RISE	WATERWAY AREA (SF)
78'	16'-2"	937
79'	16'-11 7/8"	1002
80'	17'-11"	1076
81'	18'-11 3/4"	1161
82'	20'-3"	1265
83'	21'-11 1/8"	1403
84'	26'-0"	1743

SHADED AREAS DENOTE TWIN-LEAF INSTALLATION



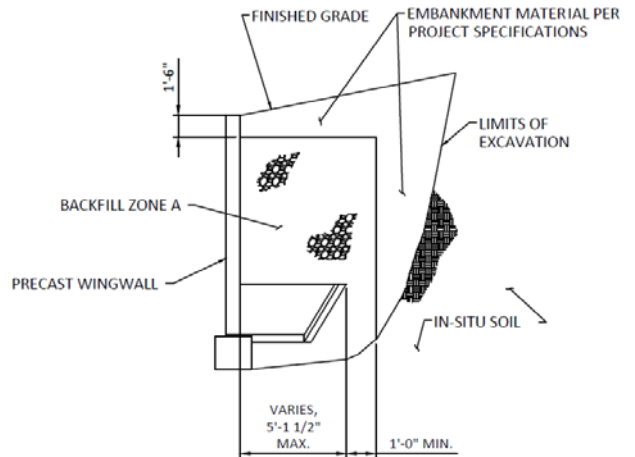
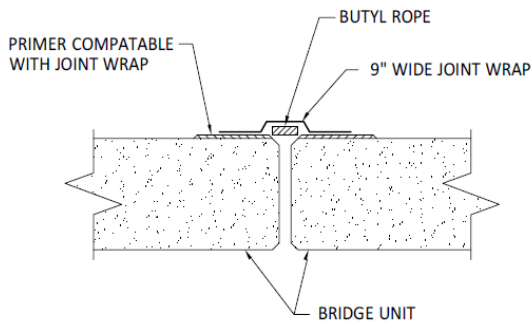
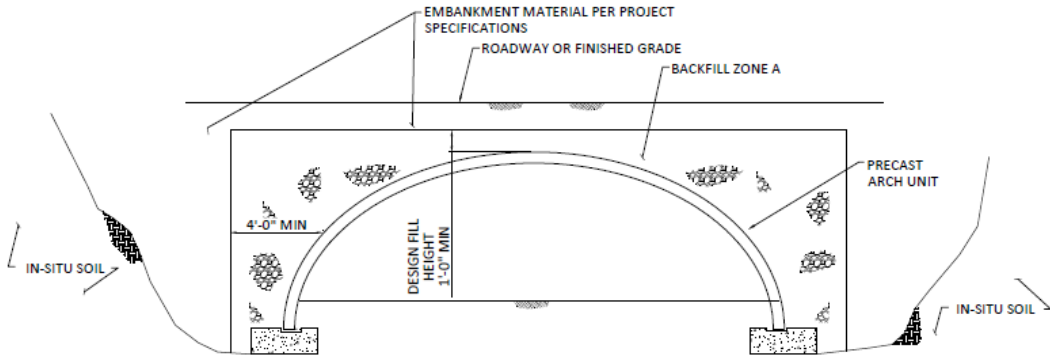
# VERSA™ SERIES

## Multiple-Radius

Design Specifications : AASHTO LFD & LRFD, AREMA  
 Manufacturing Specifications: ASTM C1504  
 Manufacturing Certifications: NPCA

BACKFILL DESCRIPTION						
GROUP CLASSIFICATION	A-1a	A-1b	A-2-4	A-2-5	A3	A4
PERCENT PASSING #10	50 MAX.					
PERCENT PASSING #40	30 MAX.	50 MAX.			51 MAX.	
PERCENT PASSING #200	15 MAX.	25 MAX.	35 MAX.	35 MAX.	10 MAX.	36 MAX.
CHARACTERISTICS OF FRACTION PASSING #40, LIQUID LIMIT			40 MAX.	41 MAX.		40 MAX.
CHARACTERISTIC OF FRACTION PASSING #40, PLASTICITY INDEX	6 MAX.	9 MAX.	10 MAX.	10 MAX.		10 MAX.
DESCRIPTION OF MATERIAL	MOSTLY GRAVEL WITH SOME SANDS AND FINES	GRAVELLY SAND OR GRADED SAND	SILTY OR CLAYEY GRAVEL AND SAND	SILTY OR CLAYEY GRAVEL AND SAND	FINE SAND	LOW COMP. SILTS

ACCEPTABLE BACKFILL MATERIAL		
SPAN	FILL HEIGHT	MATERIAL IN ZONE A
< 24'-0"	< 12'-0"	A1, A2, A3, A4
< 24'-0"	≥ 12'-0"	A1, A3
≥ 24'-0"	ALL	A1, A3



**NOTE:**  
 Joint is considered "soil-tight".  
 Additional protection is recommended if a water-tight joint is required.