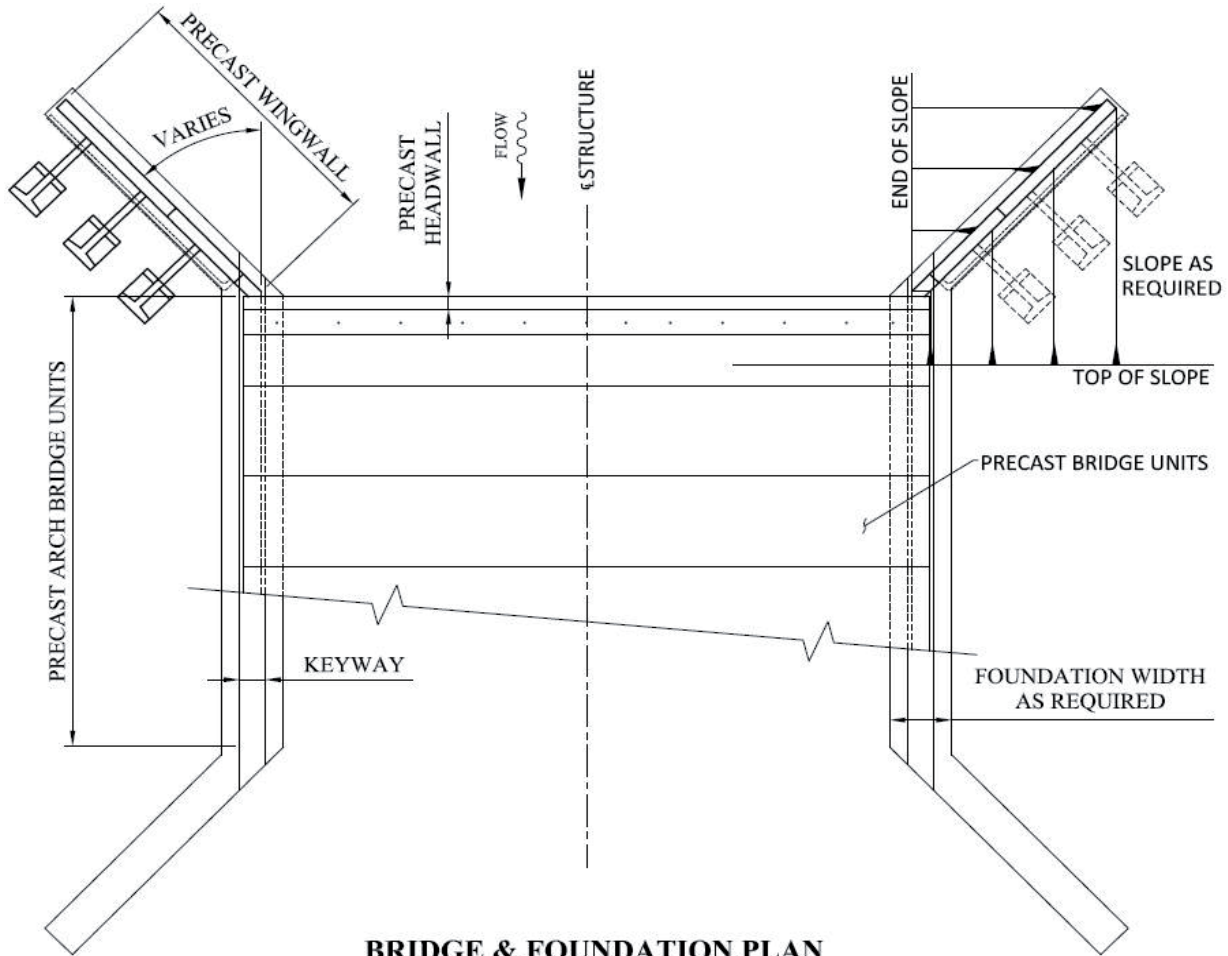


Representante y Manufacturero
en Puerto Rico:

Tel: (787)-754-1657
info@viatekpr.com
www.viatekpr.com

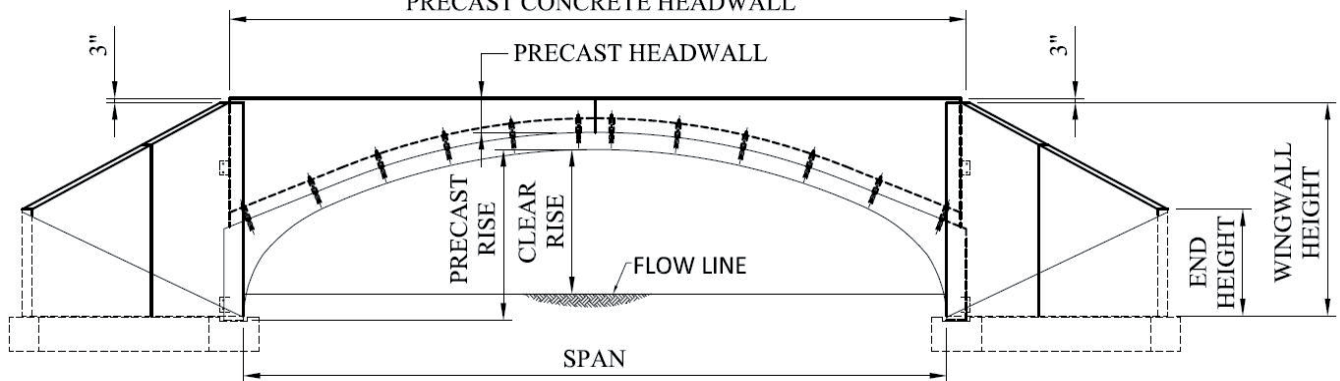


TECHNICAL DETAILS



BRIDGE & FOUNDATION PLAN

PRECAST CONCRETE HEADWALL



BRIDGE ELEVATION

ECONOMY & ECOLOGY™

Arch-Box (AB) Series



Nominal Bridge Unit Length:
 16' - 24' Spans: 8'-0"
 28' - 42' Spans: 6'-0"
 48' - 80' Spans: 4'-0"

Waterway Area (SF)

Clear Rise \ Nominal Span	16'	20'	24'	28'	32'	36'	42'	48'	60'	70'	80'
4'	55	65	72								
5'	71	85	95	111							
6'	87	105	119	138	153						
7'	103	125	143	167	184	197					
8'	119	145	167	195	216	232	271				
9'	135	165	191	223	248	268	313	340			
10'	151	185	215	251	280	304	355	387	418		
11'	167	205	239	279	315	340	397	435	477	578	
12'	183	225	263	307	344	376	439	483	537	647	704
13'	199	245	287	335	376	412	481	531	597	717	783
14'	215	265	311	363	408	448	523	579	657	787	862
15'	231	285	335	391	440	484	565	627	727	857	942

Indicates multiple-leaf installation

Single Radius (SR) Series

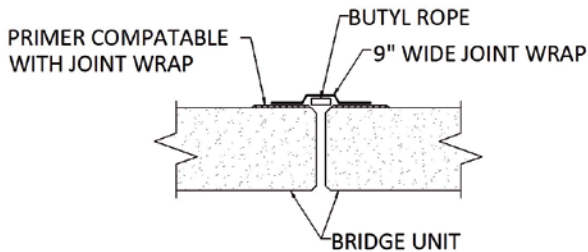


Nominal Bridge Unit Length:
 16' - 24' Spans: 8'-0"
 30' - 54' Spans: 6'-0"

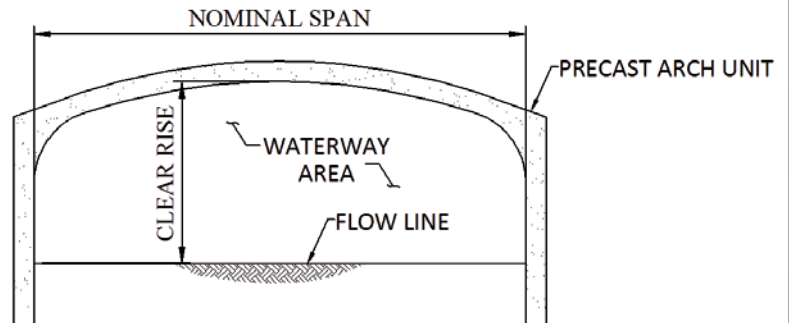
Waterway Area (SF)

Clear Rise \ Nominal Span	16'	20'	24'	30'	36'	42'	54'
4'	55	65	72				
5'	71	85	95	111			
6'	87	105	119	138	153		
7'	103	125	143	167	184		
8'	119	145	167	195	216	271	
9'	135	165	191	223	248	313	340
10'	151	185	215	251	280	355	387
11'	167	205	239	279	315	397	435
12'	183	225	263	307	344	439	483
13'	199	245	287	335	376	481	531
14'	215	265	311	363	408	523	579
15'	231	285	335	391	440	565	627

Indicates multiple-leaf installation



BRIDGE JOINT SEAL DETAIL
 NOT TO SCALE



TYPICAL SECTION

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

Variable Radius (VR) Series



Nominal Bridge Unit Length:
 16' - 24' Spans: 8'-0"
 28' - 66' Spans: 6'-0"
 72' - 84' Spans: 4'-0"

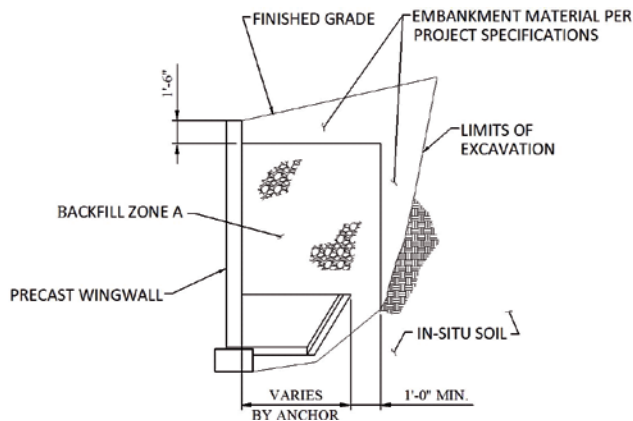
Waterway Area (SF)

Clear Rise \ Nominal Span	16'	20'	24'	28'	32'	36'	42'	48'	54'	60'	66'	72'	78'	84'
4'	43	67												
5'	57	86												
6'	73	105	96	108										
7'	89	125	120	134	148	197								
8'	105	145	143	161	178	232	271							
9'	121	165	167	188	209	268	313							
10'	137	185	191	216	240	304	355	333						
11'	153	205	215	230	272	340	397	379						
12'	169	225	239	258	304	376	439	427	484					
13'	185	245	263	286	336	412	481	475	537					
14'	201	265	287	314	368	448	523	523	590	629				
15'	217	285	311	342	400	484	565	571	643	688				
16'	233	305	335	370	432	520	607	619	697	747	798			
17'	249	325	359	398	464	556	649	667	751	807	863	922		
18'	265	345	383	426	496	592	691	715	805	867	928	993		
19'	281	365	407	454	528	628	733	763	859	927	994	1064	1120	
20'	297	385	431	482	560	664	775	811	913	987	1060	1136	1197	
21'	313	405	455	510	592	700	817	859	967	1041	1114	1208	1274	1337
22'	329	425	479	538	624	736	859	907	1021	1095	1168	1280	1352	1420
23'	345	445	503	566	656	772	901	955	1075	1149	1222	1334	1430	1504
24'	361	465	527	594	688	808	943	1003	1129	1203	1276	1388	1508	1588
25'	377	485	551	622	720	844	985	1051	1183	1257	1330	1442	1562	1672
26'	393	505	575	650	752	880	1027	1099	1237	1311	1384	1496	1616	1756

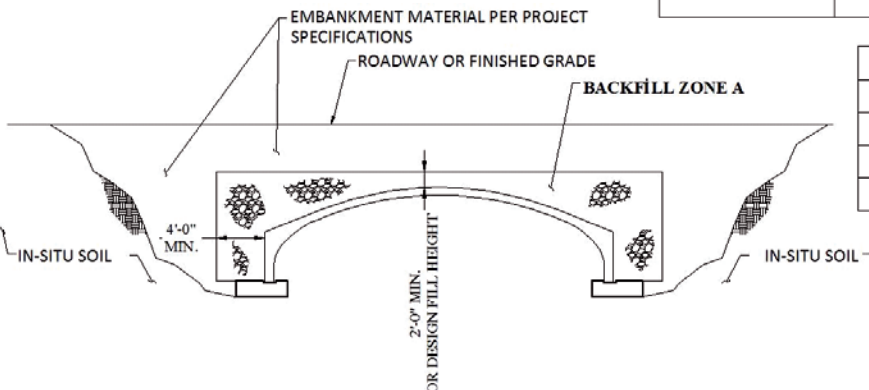
Indicates multiple-leaf installation

Backfill Requirements

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

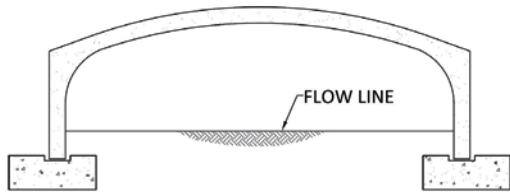


BACKFILL DESCRIPTION						
GROUP CLASSIFICATION	A-1a	A-1b	A-2-4	A-2-5	A3	A4
PERCENT PASSING #10	50 MAX.					
PERCENT PASSING #40	30 MAX.	50 MAX.			51 MAX.	
PERCENT PASSING #200	15 MAX.	25 MAX.	35 MAX.	35 MAX.	10 MAX.	36 MAX.
CHARACTERISTICS OF FRACTION PASSING #40, LIQUID LIMIT			40 MAX.	41 MAX.		40 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

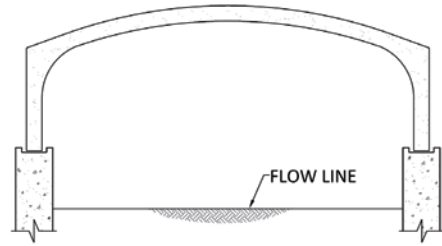


ACCEPTABLE BACKFILL MATERIAL		
SPAN	FILL HEIGHT	MATERIAL IN ZONE A
< 24'-0"	< 12'-0"	A1, A2, A3, A4
< 24'-0"	≥ 12'-0"	A1, A3
≥ 24'-0"	ALL	A1, A3

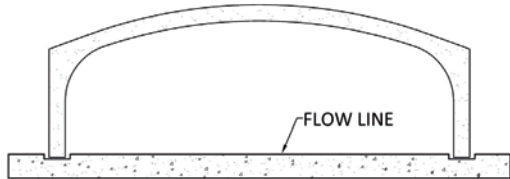
FOUNDATION OPTIONS & DETAILS



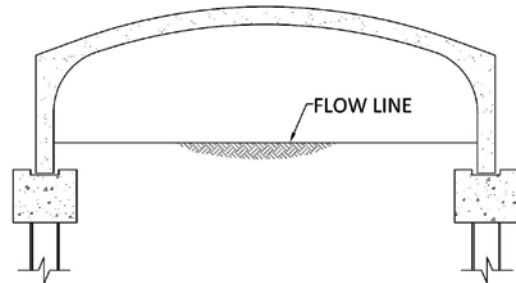
STRIP FOUNDATION



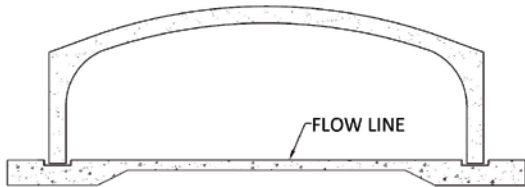
PEDESTAL FOUNDATION



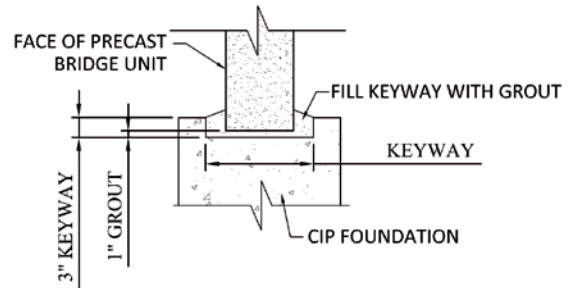
STRUCTURAL BASE SLAB FOUNDATION



DEEP FOUNDATION (PILE / CAISSON)

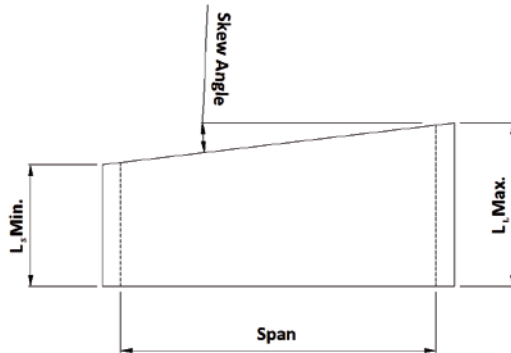


STRIP FOUNDATION W/ PAVED INVERT

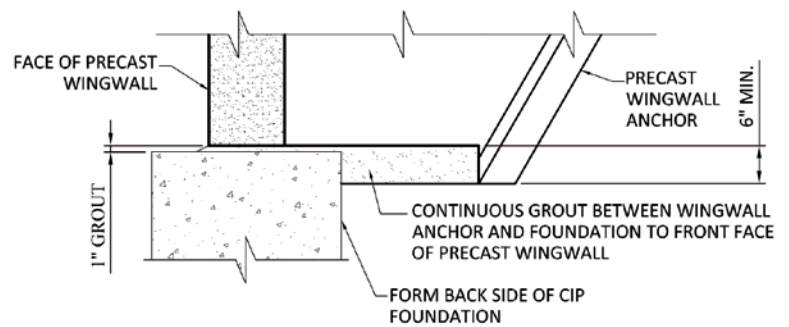


BRIDGE UNIT GROUT DETAIL

SKEWED BRIDGE UNITS



SKEWED UNIT PLAN



WINGWALL GROUT DETAIL

MAXIMUM SKEW			
SPAN (FT)	L ₁ MAX. (FT)	MAX. SKEW (DEGREES)	L ₅ MIN. (FT)
12	7.75	23.33	2.00
14	7.75	20.56	2.00
16	7.75	18.03	2.00
20	7.75	14.86	2.00
24	7.75	12.63	2.00
28	5.75	7.12	2.00
32	5.75	6.29	2.00
36	5.75	5.59	2.00
42	5.75	4.83	2.00
48	3.75	1.42	2.50

MATERIALS - FOUNDATION

CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI

REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A996 GRADE 60

