

**Manual**

**Structures Inspection Manual**

**Part 3 - Appendix C: Standard Component Identification  
Schedule**

**September 2016**

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Figure C1 – Typical PSC deck unit bridge 1

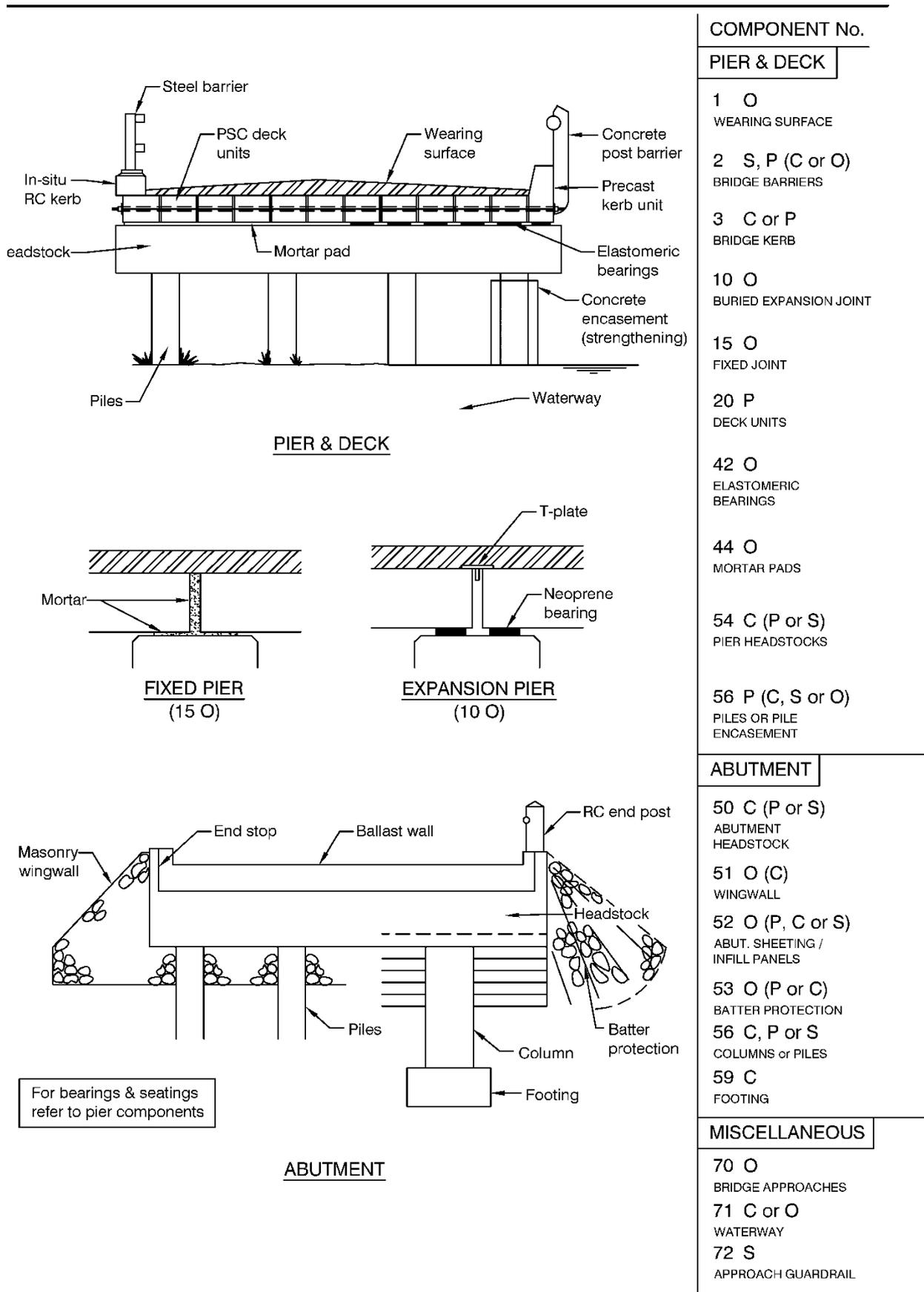
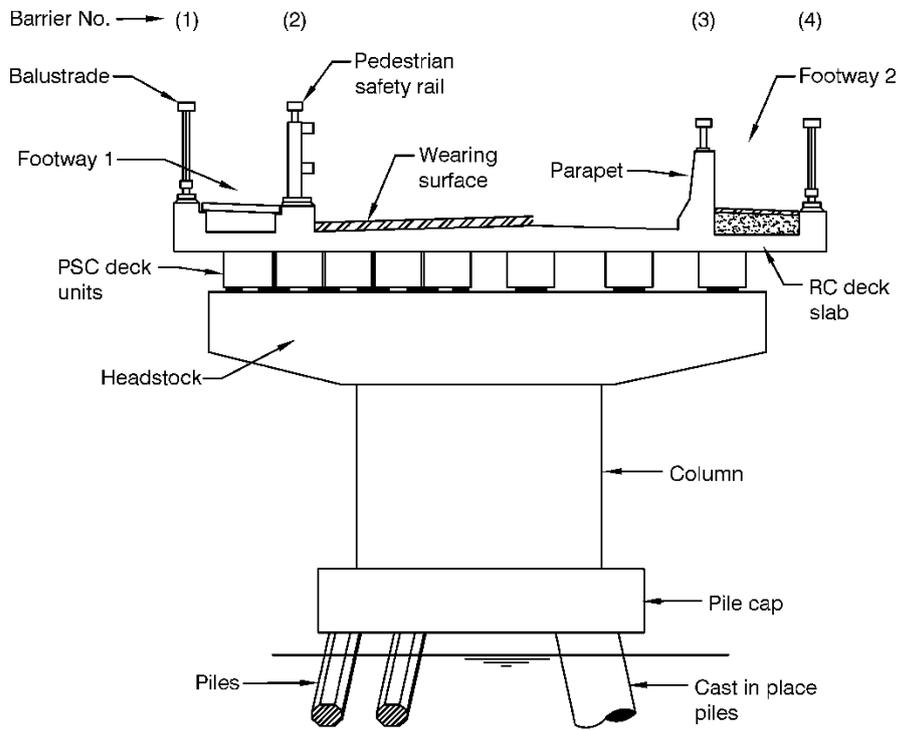
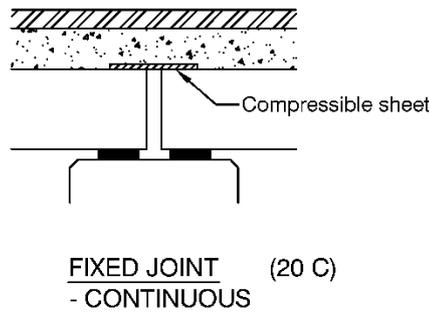
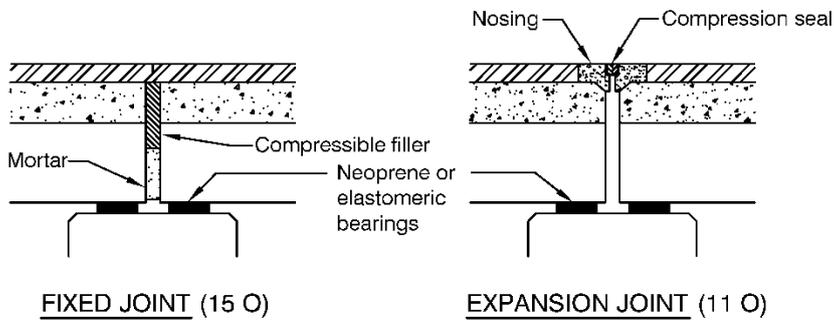


FIGURE C1 - TYPICAL PSC DECK UNIT BRIDGE 1

Figure C2 – Typical PSC deck unit bridge 2



**PIER & DECK**



COMPONENT No.	
<b>PIER &amp; DECK</b>	
1	O, C WEARING SURFACE
2	S, C (P or O) BRIDGE BARRIERS (incl. safety rail)
3	C BRIDGE KERB
11	O COMPRESSION JOINT SEAL
15	O FIXED JOINT
20	C DECK SLAB
21	P DECK UNITS
40	C, P FOOTWAY
42	O ELASTOMERIC BEARINGS
54	C (P or S) PIER HEADSTOCKS
56	C PIER COLUMN
59	C PILE CAP
56	P, C or S PILES (if visible)
<b>ABUTMENT</b>	
For ABUTMENTS refer to Figures C1, C3 and C5	
<b>MISCELLANEOUS</b>	
70	O BRIDGE APPROACHES
71	C or O WATERWAY
72	S APPROACH GUARDRAIL

FIGURE C2 - TYPICAL PSC DECK UNIT BRIDGE 2

Figure C3 – Typical PSC girder bridge

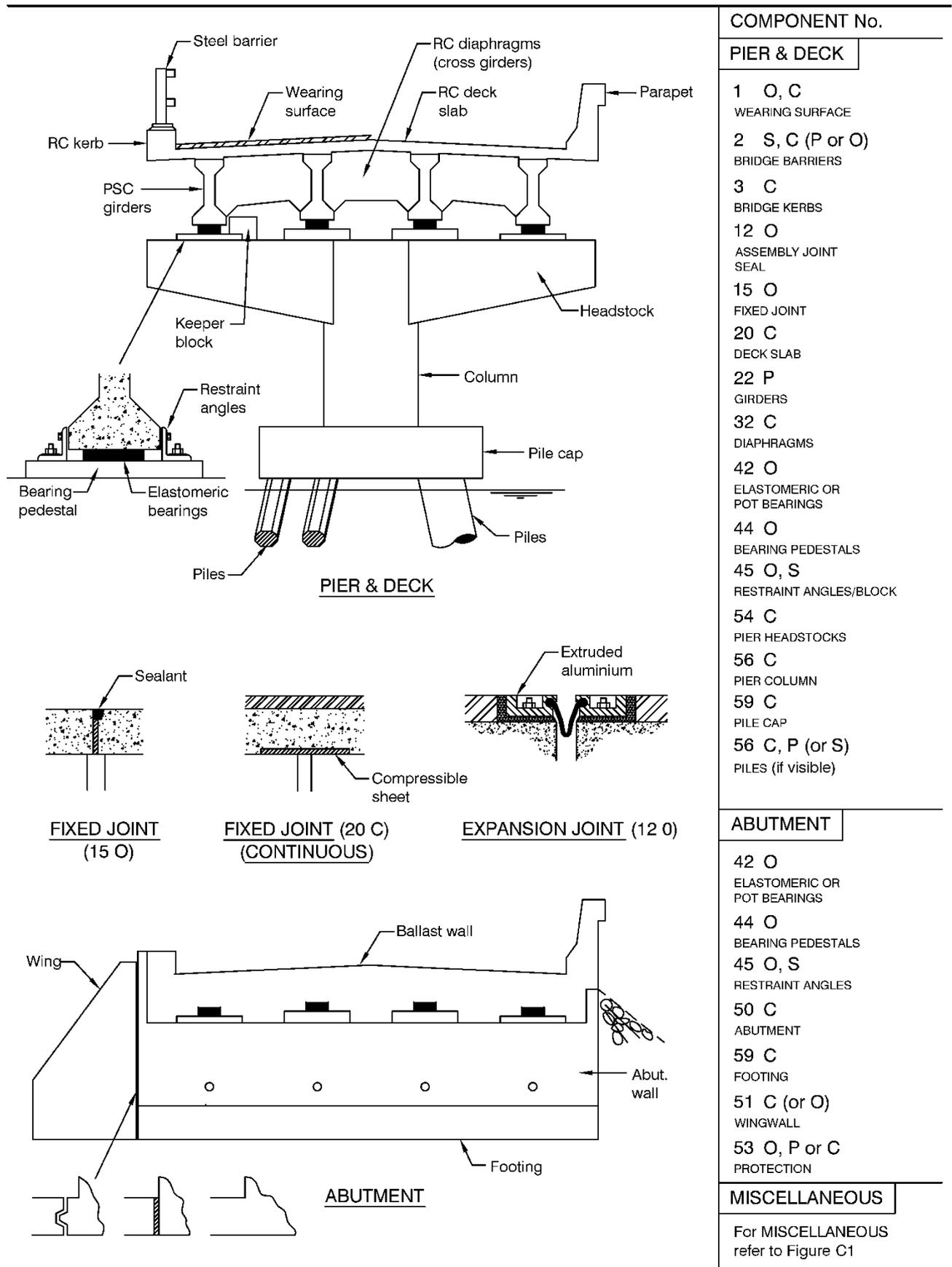
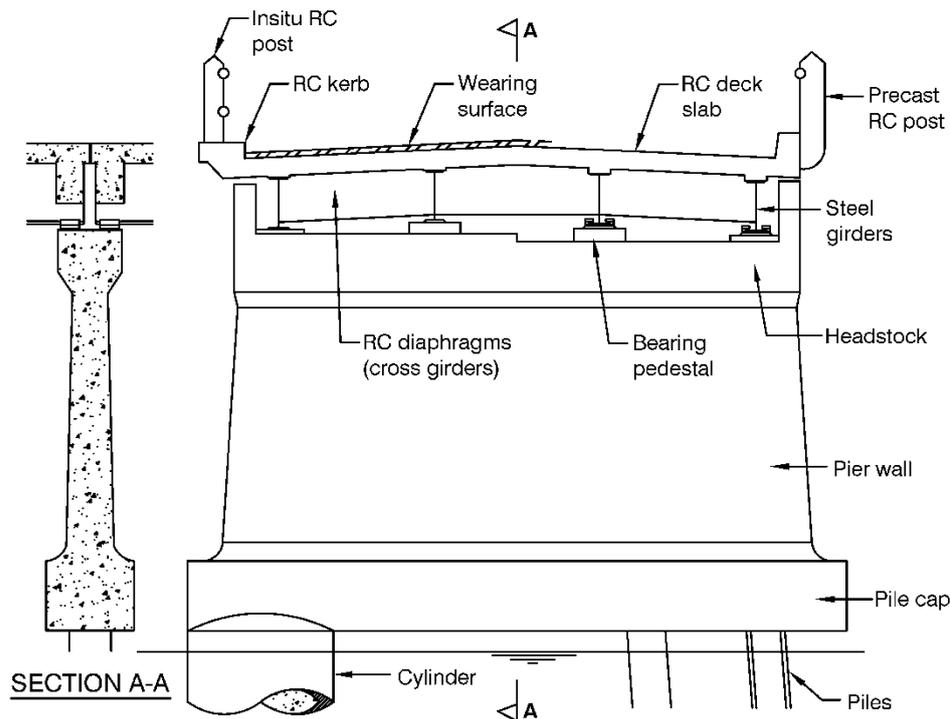


FIGURE C3 - TYPICAL PSC GIRDER BRIDGE

Figure C4 – Typical steel girder bridge



PIER & DECK

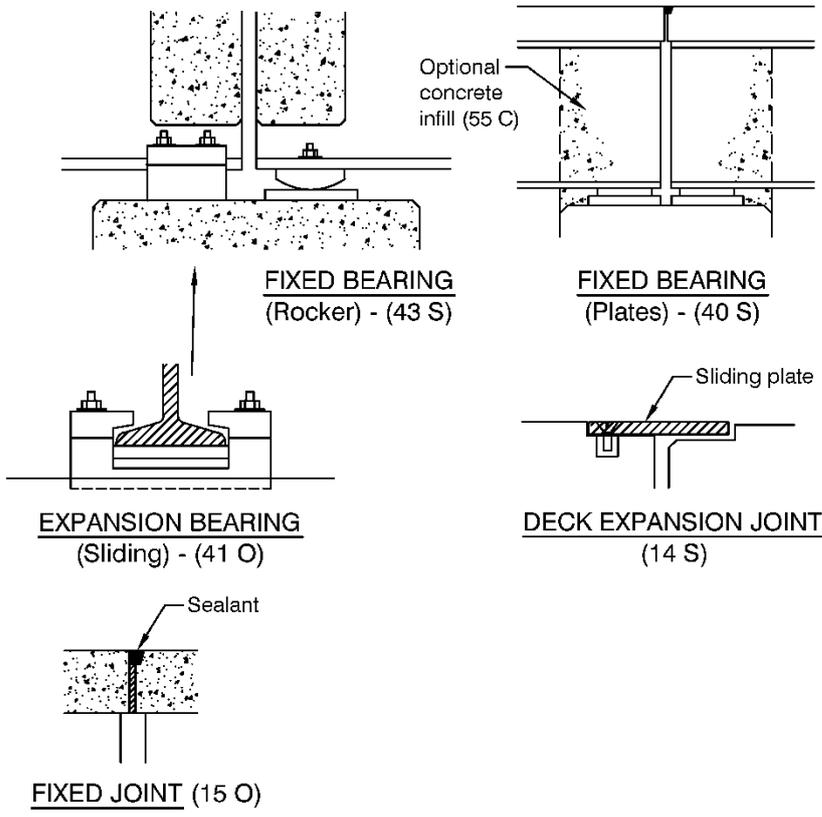


FIGURE C4 - TYPICAL STEEL GIRDER BRIDGE

COMPONENT No.

PIER & DECK

- 1 O, C WEARING SURFACE
- 2 C or P BRIDGE BARRIERS
- 3 C BRIDGE KERBS
- 14 S SLIDING JOINT
- 15 O FIXED JOINT
- 20 C DECK SLAB
- 22 S GIRDERS
- 31 C or S DIAPHRAGMS
- 40 O FIXED BEARING
- 41 O SLIDING BEARING
- 43 S ROCKER BEARING
- 44 O BEARING PEDESTALS
- 54 C PIER HEADSTOCKS
- 58 C PIER WALL
- 59 C FOOTING / PILE CAP
- 56 C, P, S PILES (if visible)

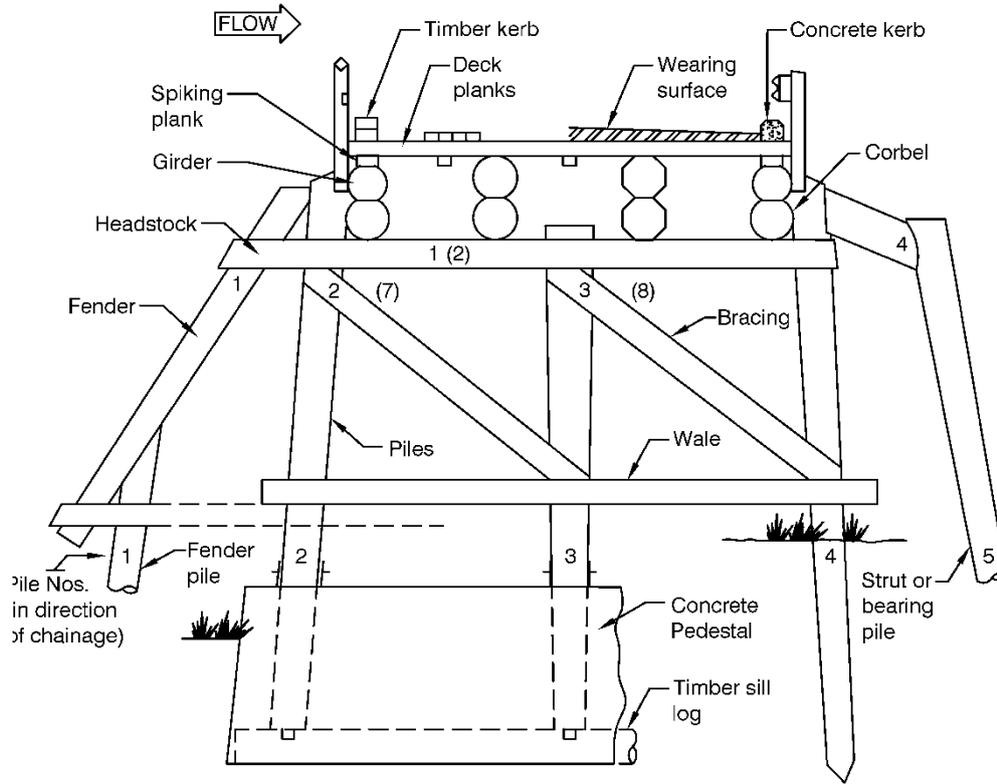
ABUTMENTS

For ABUTMENTS refer to Figures C1, C3 and C5

MISCELLANEOUS

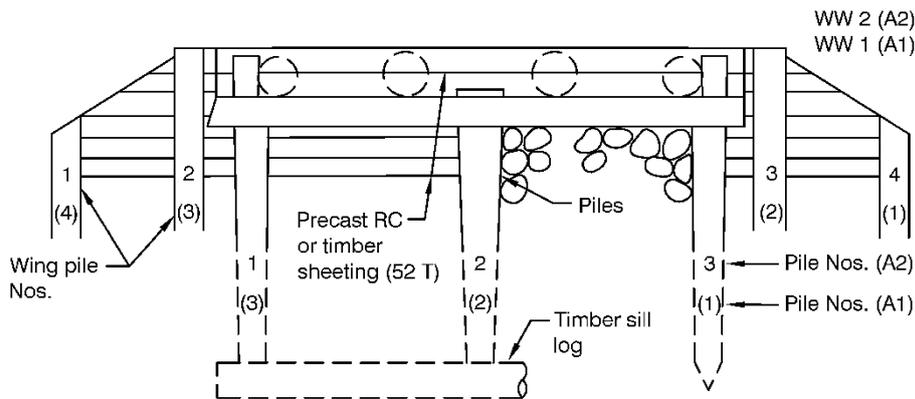
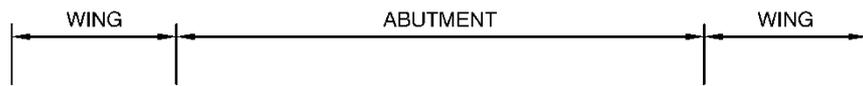
- 70 O BRIDGE APPROACHES
- 71 C or O WATERWAY
- 72 S APPROACH GUARDRAIL

Figure C5 – Typical timber bridge



Bracing pair indicated 2 (7) with brackets denoting reverse side

**PIER & DECK**



**ABUTMENT & WINGS**

FIGURE C5 - TYPICAL TIMBER BRIDGE

**COMPONENT No.**

**DECK**

- 1 C or O WEARING SURFACE (if any)
- 2 T or S BRIDGE BARRIERS
- 3 T or C BRIDGE KERBS

**SUPERSTRUCTURE**

- 29 T (or P) DECK PLANKS

**ALTERNATIVES**

- 20 T PLY DECK OR STRESS LAMINATED
- 20 C CONCRETE SLAB DECK
- 30 S STEEL DECKING

- 22 T GIRDERS
- 33 T SPIKING PLANK

**PIER**

- 27 T CORBELS
- 54 T PIER HEADSTOCKS (1 & 2)
- 56 T PILES
- 57 T BRACING & WALES
- 59 C, T FOOTING & SILL LOG

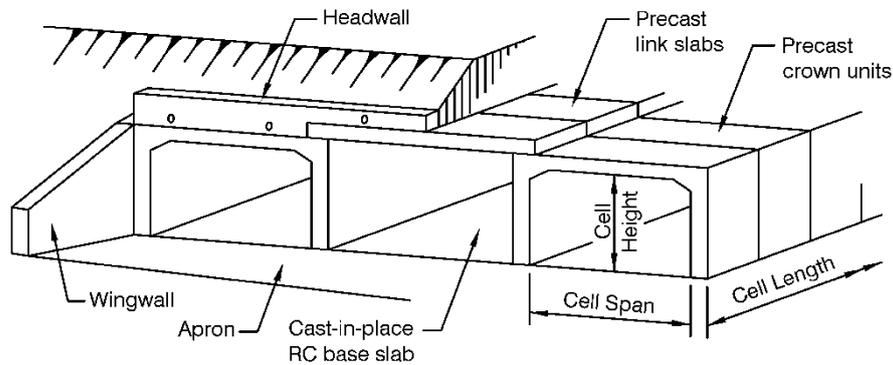
**ABUTMENT**

- 54 T ABUTMENT (Htks 1 & 2)
- 56 T PILES
- 52 T, P or O ABUT. SHEETING
- 53 O, P or C PROTECTION
- 51 C, O or T WING WALLS (discrete)
- 60 T, P, S WING PILES

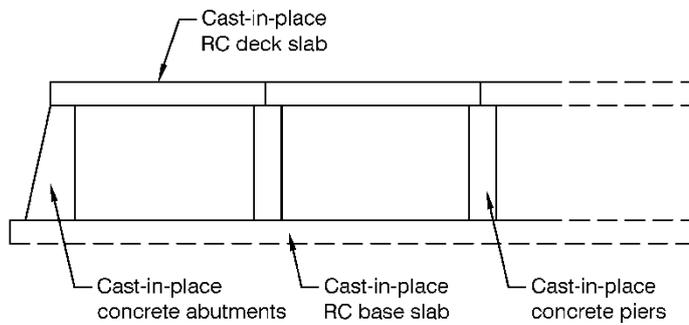
**MISCELLANEOUS**

For MISCELLANEOUS refer to Figure C1

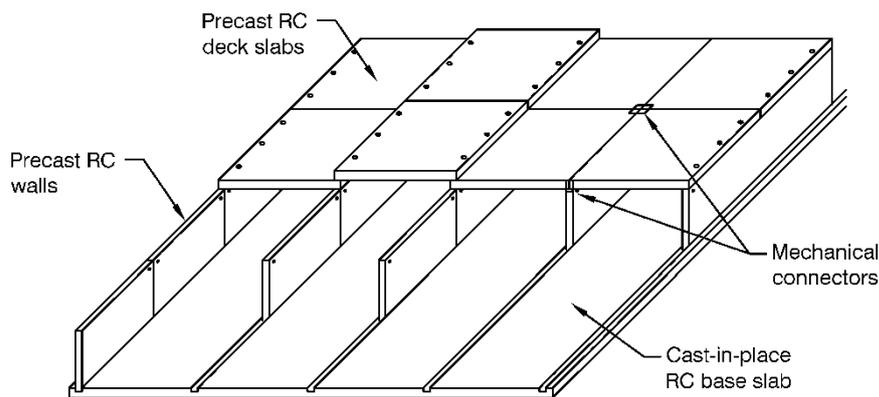
Figure C6 – Typical concrete culverts



PRECAST CROWN UNITS



SLAB DECK CULVERT



MODULAR CULVERT

COMPONENT No.

81 P  
CROWN UNITS AND LINK  
SLAB

84 C  
HEADWALLS AND  
WINGWALLS

85 C  
BASE SLAB

20 C  
DECK SLAB

50 C  
ABUTMENT

58 C  
PIER WALLS

85 C  
BASE SLAB

82 P  
DECK SLABS AND WALLS

85 C  
BASE SLAB

MISCELLANEOUS

For MISCELLANEOUS  
refer to Figure C1

FIGURE C6 - TYPICAL CONCRETE CULVERTS

**Figure C7 – Typical steel culverts**

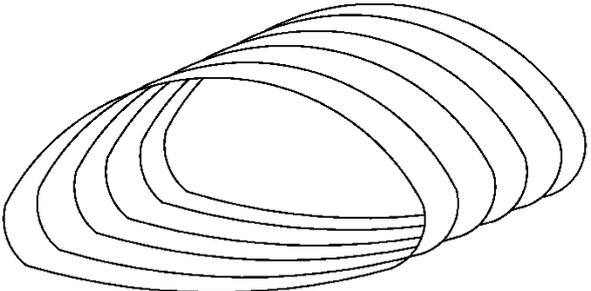
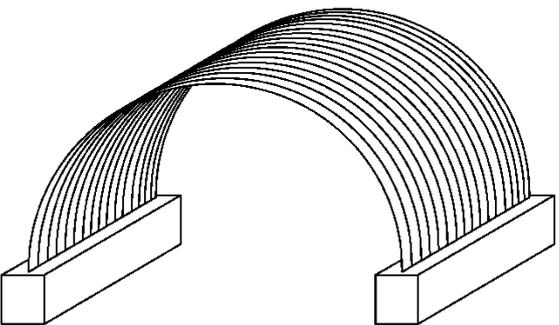
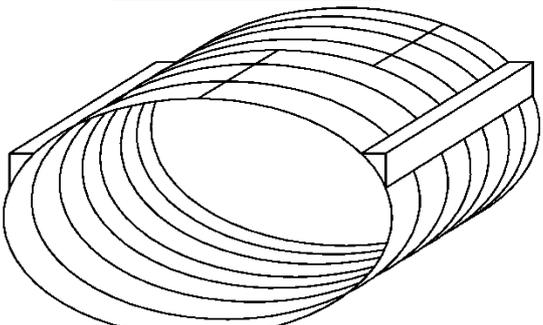
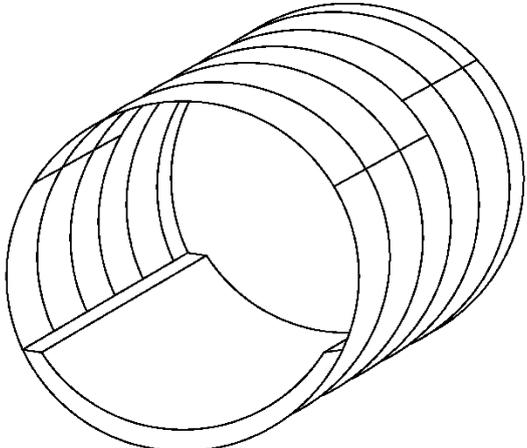
	COMPONENT No.
 <p data-bbox="614 593 869 660"><u>CORRUGATED METAL PLATE PIPE ARCH</u></p>	<p data-bbox="1252 436 1364 504">80 S, A PIPE CULVERT</p>
 <p data-bbox="566 996 917 1064"><u>CORRUGATED METAL PLATE OPEN FOOTING ARCH</u></p>	<p data-bbox="1252 828 1380 884">83 S, A ARCH CULVERT</p>
 <p data-bbox="574 1388 925 1456"><u>CORRUGATED METAL PLATE SUPERSPAN ELLIPSE</u></p>	<p data-bbox="1252 1220 1364 1276">80 S, A PIPE CULVERT</p>
 <p data-bbox="391 1915 1085 1960"><u>ROUND CORRUGATED METAL PLATE/HELICALLY FORMED</u></p>	<p data-bbox="1252 1668 1364 1724">80 S, A PIPE CULVERT</p> <p data-bbox="1252 1724 1348 1780">85 C PIPE INVERT</p>
<p data-bbox="494 1982 965 2007">FIGURE C7 - TYPICAL STEEL CULVERTS</p>	<p data-bbox="1244 1870 1460 1904"><b>MISCELLANEOUS</b></p> <p data-bbox="1252 1915 1460 1971">For MISCELLANEOUS refer to Figure C1</p>

Figure C8 – Bridge railing/barrier

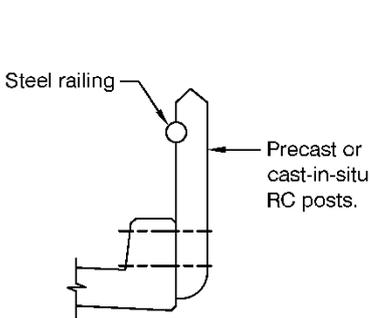
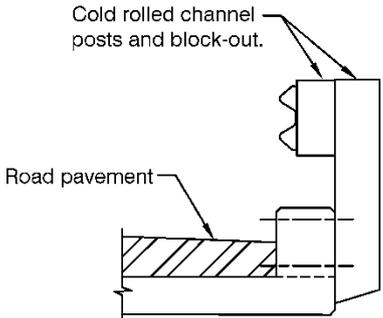
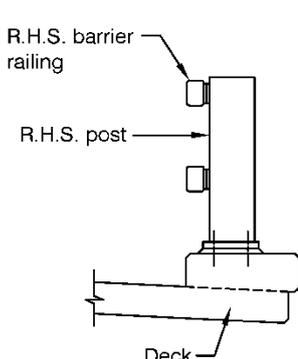
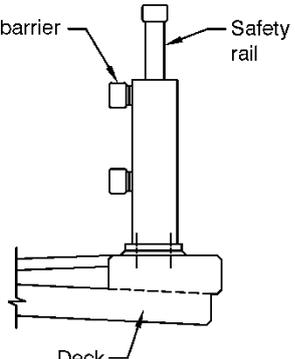
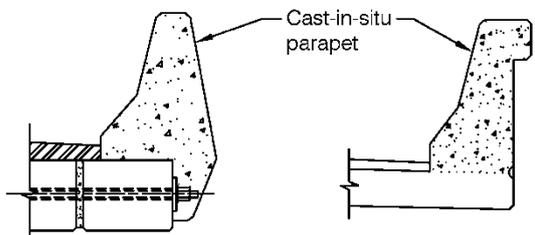
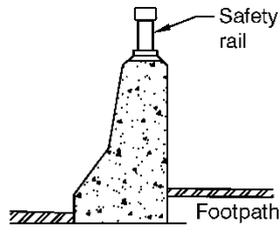
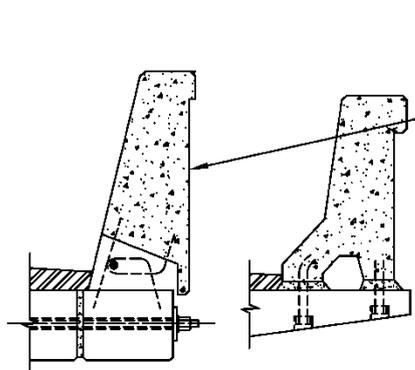
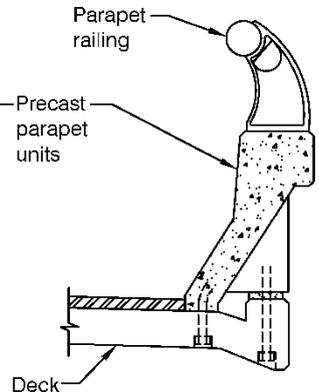
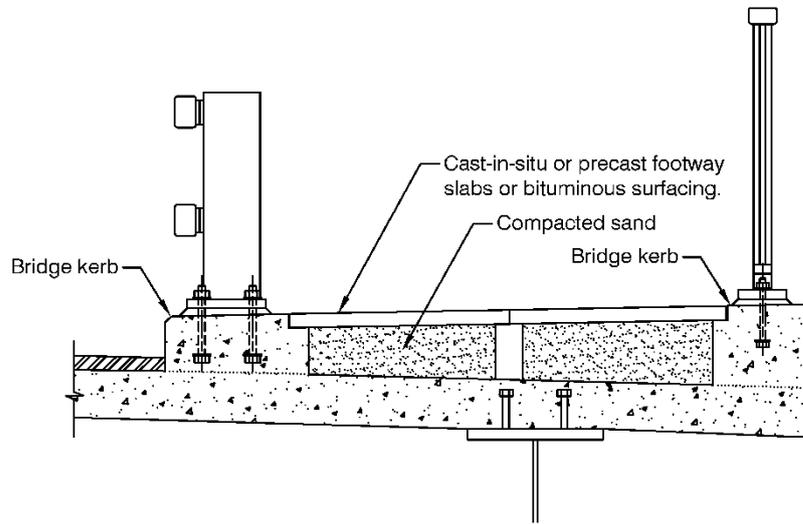
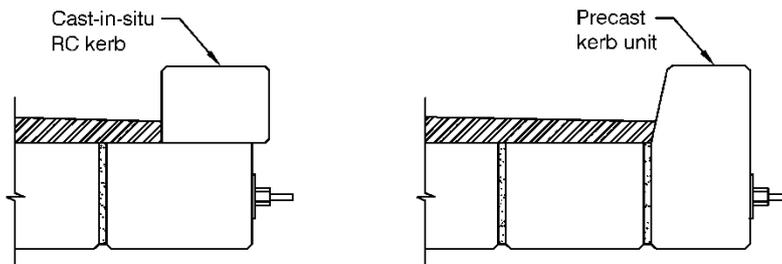
		COMPONENT No.
 <p>Steel railing</p> <p>Precast or cast-in-situ RC posts.</p>	 <p>Cold rolled channel posts and block-out.</p> <p>Road pavement</p>	2 S
 <p>R.H.S. barrier railing</p> <p>R.H.S. post</p> <p>Deck</p>	 <p>R.H.S. barrier railing</p> <p>Safety rail</p> <p>Deck</p>	2 S (O if aluminium)
 <p>Cast-in-situ parapet</p>	 <p>Safety rail</p> <p>Footpath</p>	2 C
 <p>Precast parapet units</p> <p>Deck</p>	 <p>Parapet railing</p> <p>Deck</p>	2 P

FIGURE C8 - BRIDGE RAILING/BARRIER

Figure C9 – Bridge kerbs and footways



KERB & FOOTWAY



KERBS

COMPONENT No.

3 C  
KERB

4 C  
CAST-IN-SITU FOOTWAY

4 P  
PRECAST FOOTWAY

4 O  
BITUMINOUS SURFACING

3 C  
CAST-IN-SITU KERB

3 P  
PRECAST KERB

FIGURE C9 - BRIDGE KERBS & FOOTWAYS

Figure C10 – Deck joints, sheet 1 of 3

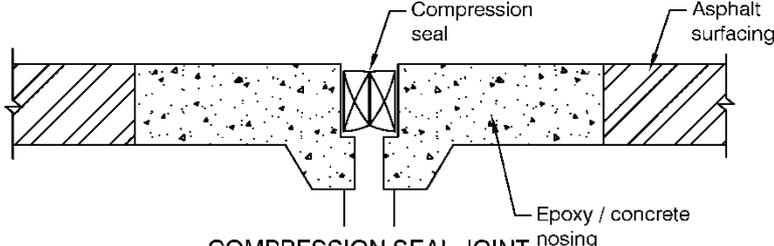
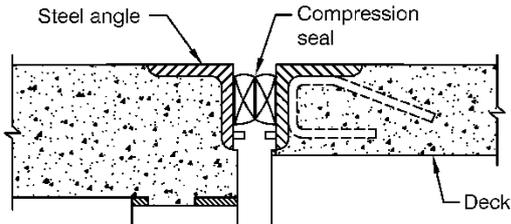
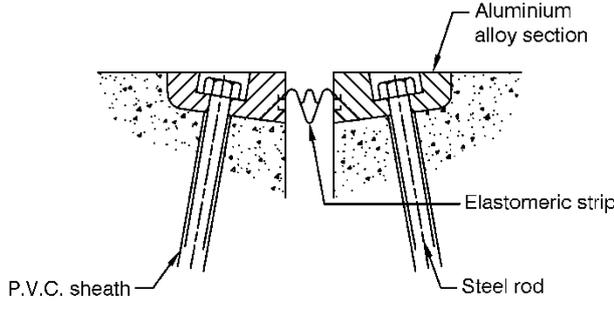
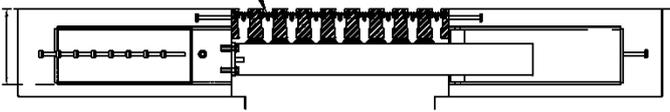
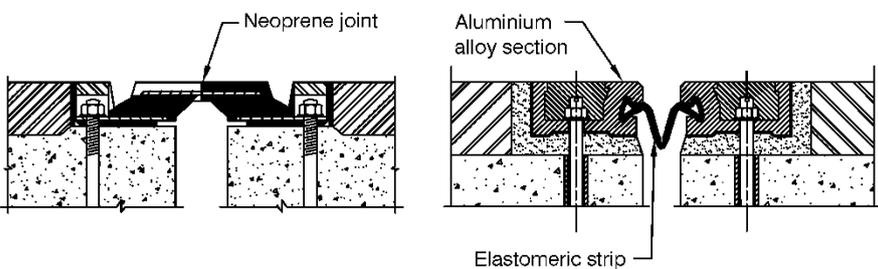
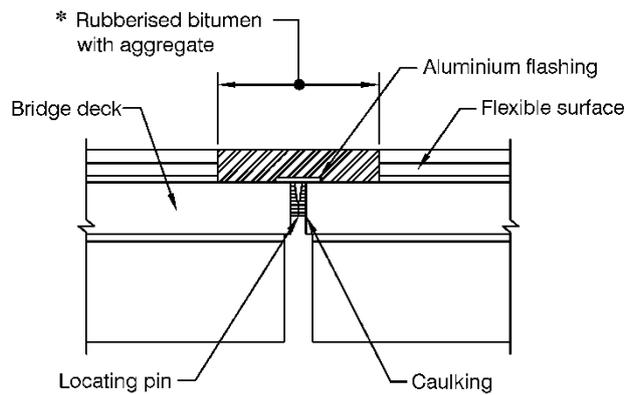
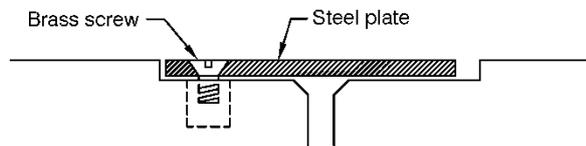
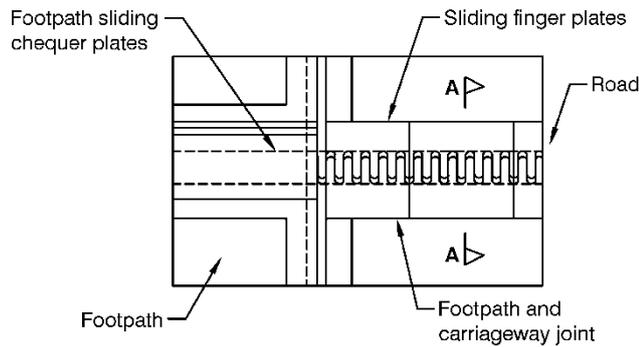
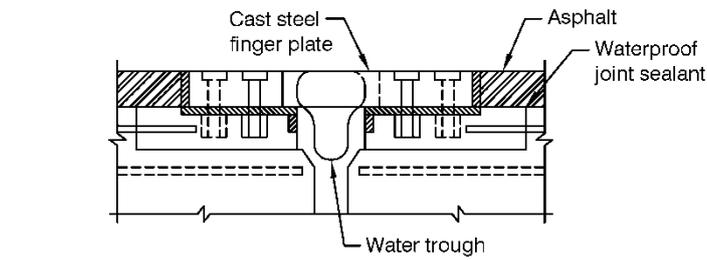
	COMPONENT No.
 <p style="text-align: center;"><b>COMPRESSION SEAL JOINT</b></p>	11 O
 <p style="text-align: center;"><b>COMPRESSION SEAL JOINT</b></p>	11 O
 <p style="text-align: center;"><b>ASSEMBLY JOINT SEALS</b></p>	12 O
<p>CONTINUOUS NEOPRENE STRIP SEAL</p>  <p style="text-align: center;"><b>MODULAR JOINT</b></p>	12 O
 <p style="text-align: center;"><b>ASSEMBLY JOINT SEALS</b></p>	12 O

FIGURE C10 - DECK JOINTS. SHEET 1 of 3

Figure C11 – Deck joints, sheet 2 of 3



\* also includes continuous DWS

COMPONENT No.

14 S  
FINGER PLATE JOINT

14 S  
SLIDING PLATE JOINT

10 O

FIGURE C11 - DECK JOINTS. SHEET 2 of 3

Figure C12 – Deck joints, sheet 3 of 3

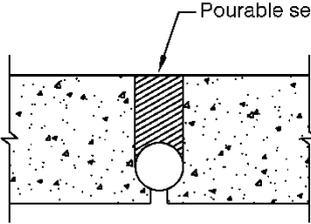
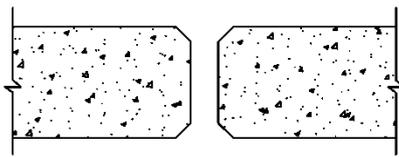
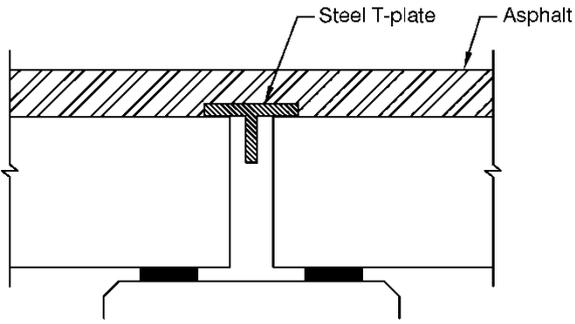
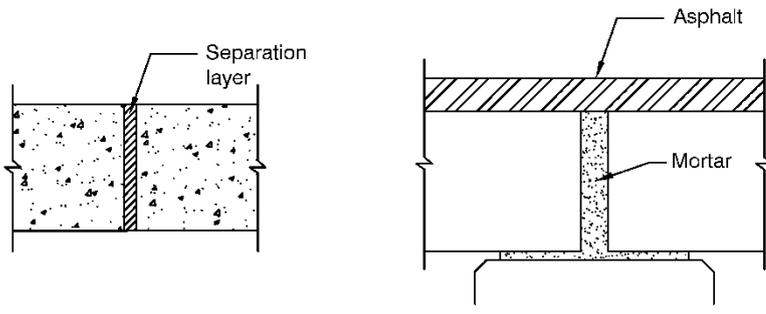
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 <p style="text-align: center;"><b>OPEN JOINT</b></p>	13 O	
 <p style="text-align: center;"><b>BURIED EXPANSION JOINT</b></p>	10 O	
 <p style="text-align: center;"><b>FIXED JOINTS</b></p>	15 O	

FIGURE C12 - DECK JOINTS. SHEET 3 of 3

Figure C13 – Decks/slabs and steel decking, sheet 1 of 2

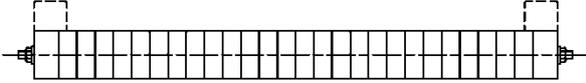
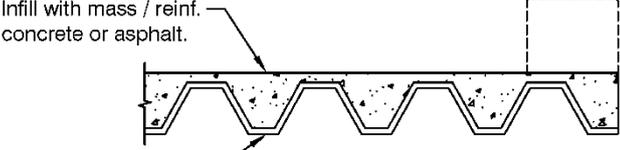
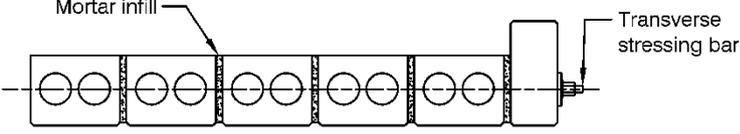
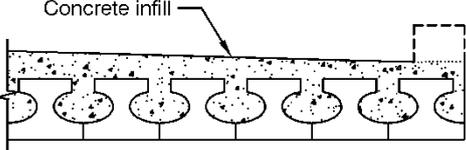
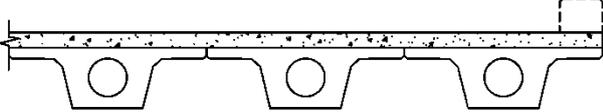
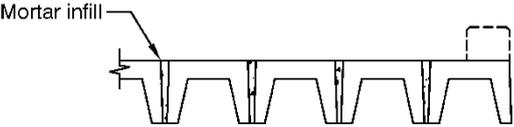
	COMPONENT No.
 <p data-bbox="571 450 815 479" style="text-align: center;"><u>STRESS LAMINATED</u></p>	20 T
 <p data-bbox="308 533 502 584">Infill with mass / reinf. concrete or asphalt.</p> <p data-bbox="352 689 502 734">Corrugated steel bridge deck.</p> <p data-bbox="507 725 868 786" style="text-align: center;"><u>STEEL DECKING (Longitudinal)</u> (also transverse placement)</p>	30 S
 <p data-bbox="443 831 555 853">Mortar infill</p> <p data-bbox="1002 846 1129 891">Transverse stressing bar</p> <p data-bbox="464 1010 922 1039" style="text-align: center;"><u>PRECAST PRESTRESSED DECK UNITS</u></p>	20 P
 <p data-bbox="496 1099 635 1122">Concrete infill</p> <p data-bbox="389 1301 986 1330" style="text-align: center;"><u>PRECAST PRESTRESSED UNITS &amp; OVERLAY SLAB</u></p>	20 P
 <p data-bbox="379 1570 1007 1599" style="text-align: center;"><u>PRECAST PRESTRESSED T-SLABS &amp; OVERLAY SLAB</u></p>	20 P
 <p data-bbox="357 1682 464 1704">Mortar infill</p> <p data-bbox="576 1861 804 1890" style="text-align: center;"><u>PRECAST U-SLABS</u></p>	20 P

FIGURE C-13 - DECKS/SLABS & STEEL DECKING. SHEET 1 of 2

Figure C14 – Decks/slabs and steel decking, sheet 2 of 2

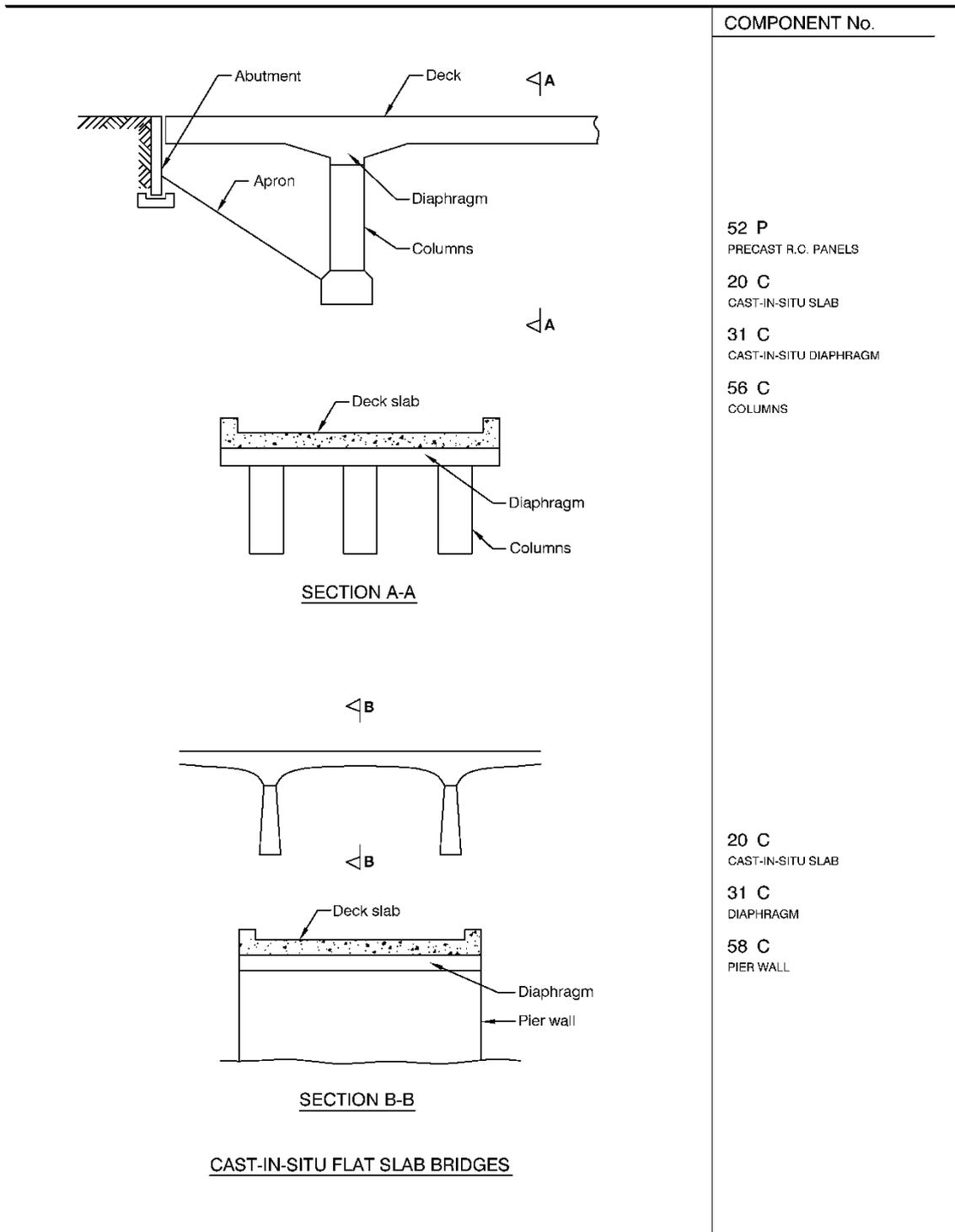


FIGURE C14 - DECKS/SLABS & STEEL DECKING. SHEET 2 of 2

Figure C15 – Closed web/box girder

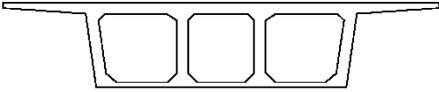
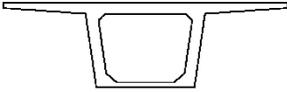
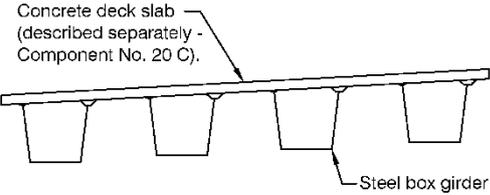
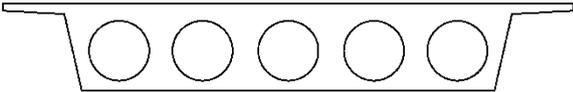
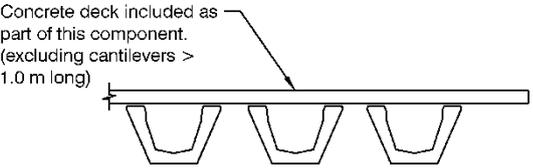
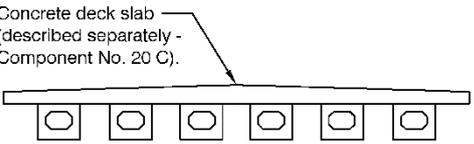
SUPERSTRUCTURE	COMPONENT No.
 <p><u>MULTI-CELL PSC BOX</u></p>	21 P or 21 C
 <p><u>SINGLE-CELL PSC BOX</u></p>	
 <p><u>STEEL BOX GIRDER WITH COMPOSITE DECK</u></p>	20 C CONCRETE DECK  21 S STEEL GIRDER
 <p><u>PSC VOIDED SLAB</u></p>	21 C
 <p><u>PSC U-BEAM / TROUGH BEAM AND RC SLAB</u></p>	21 P GIRDER  20 C DECK CANTILEVER
 <p><u>PSC DECK UNITS &amp; RC DECK</u></p>	20 C CONCRETE DECK  21 P DECK UNITS

FIGURE C15 - CLOSED WEB/BOX GIRDER

Figure C16 – Open girders

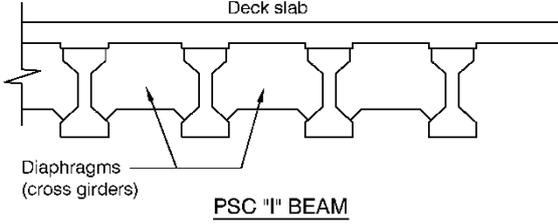
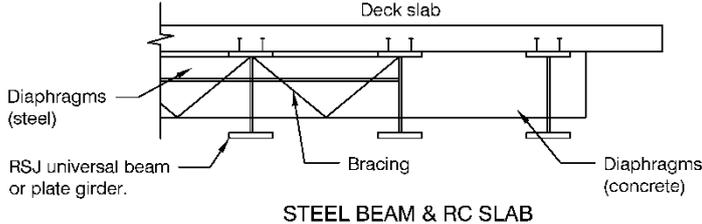
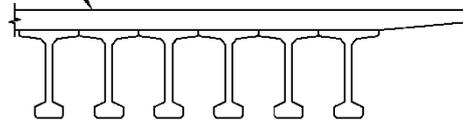
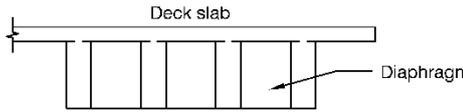
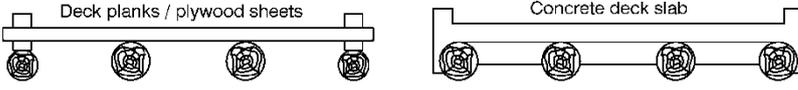
	COMPONENT No.
 <p>Deck slab</p> <p>Diaphragms (cross girders)</p> <p><b>PSC "I" BEAM</b></p>	<p>20 C DECK SLAB</p> <p>22 P GIRDERS</p> <p>31 C DIAPHRAGMS</p>
 <p>Deck slab</p> <p>Diaphragms (steel)</p> <p>RSJ universal beam or plate girder.</p> <p>Bracing</p> <p>Diaphragms (concrete)</p> <p><b>STEEL BEAM &amp; RC SLAB</b></p>	<p>20 C DECK SLAB</p> <p>22 S GIRDERS</p> <p>31 S, C DIAPHRAGMS / BRACING</p>
<p>Concrete deck included as part of this component. (excluding cantilevers &gt; 1.0 m long)</p>  <p>Deck slab</p> <p><b>PSC SUPER T-BEAM &amp; RC SLAB</b></p>	<p>22 P GIRDER</p> <p>20 C DECK CANTILEVER</p>
<p>Concrete deck included as part of this component. (excluding cantilevers &gt; 1.0 m long)</p>  <p>Deck slab</p> <p><b>PSC BULB-T BEAM &amp; RC SLAB</b></p>	<p>22 P GIRDER</p> <p>20 C DECK CANTILEVER</p>
 <p>Deck slab</p> <p>Diaphragm</p> <p><b>CAST-IN-SITU RC BEAM &amp; SLAB</b></p>	<p>20 C DECK SLAB</p> <p>22 C GIRDERS</p> <p>55 C PIER HEADSTOCK (INTEGRAL)</p> <p>31 C DIAPHRAGMS</p>
 <p>Deck planks / plywood sheets</p> <p>Concrete deck slab</p> <p><b>TIMBER GIRDERS</b></p>	<p>22 T GIRDERS</p> <p>29 T, P DECK PLANKS</p> <p>20 C, T DECK SLAB</p>

FIGURE C16 - OPEN GIRDERS

Figure C17 – Truss bridges

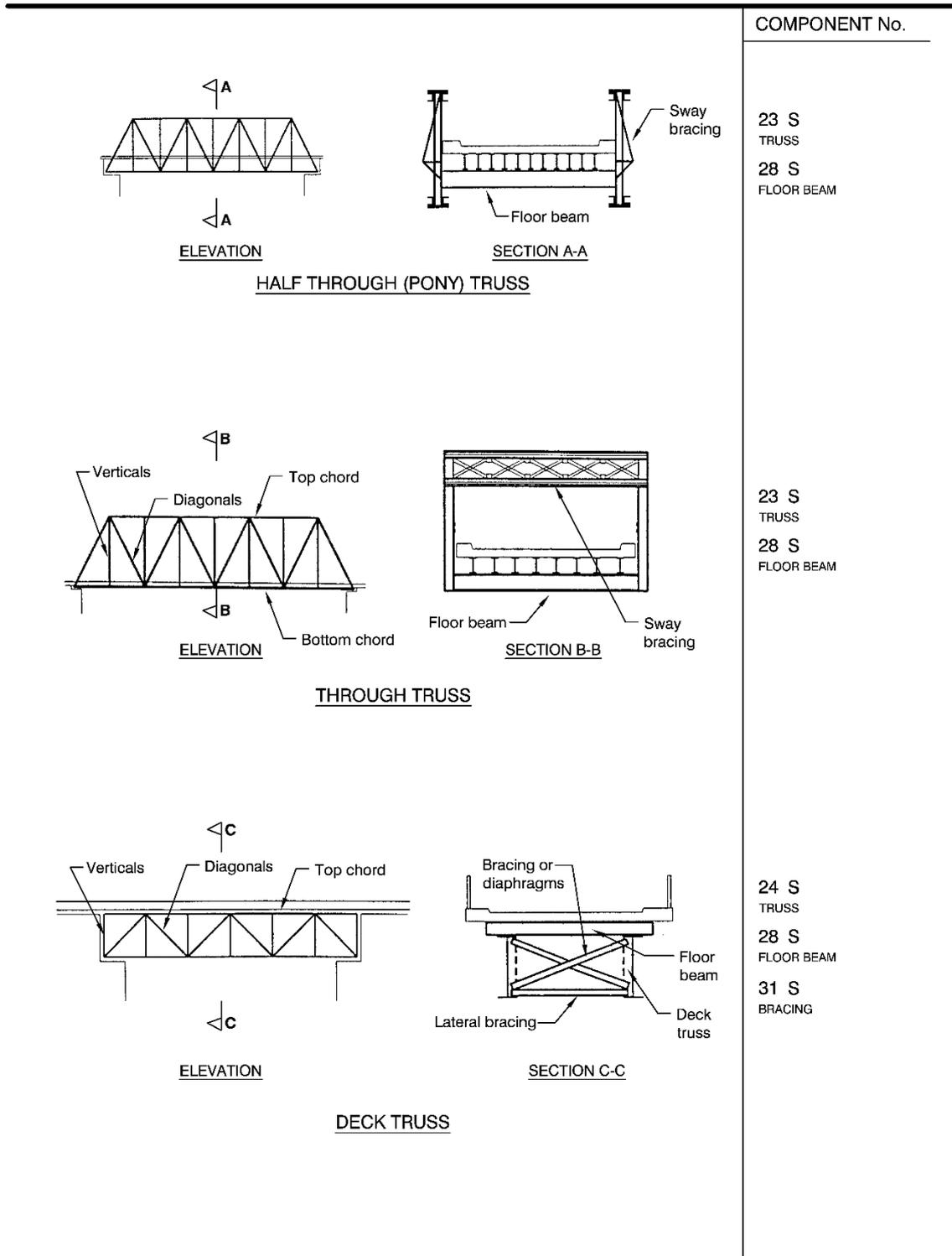


FIGURE C17 - TRUSS BRIDGES

Figure C18 – Arches, sheet 1 of 2

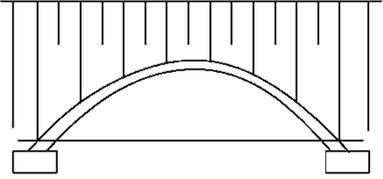
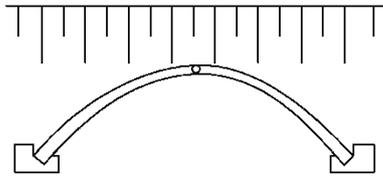
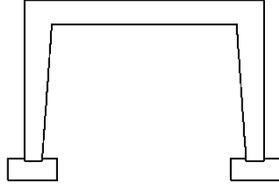
	COMPONENT No.
 <p data-bbox="454 649 885 683"><u>CONCRETE OR MASONRY BARREL ARCH</u></p>	25 C, P or O
 <p data-bbox="454 1108 885 1142"><u>PRECAST CONCRETE ARCH (3 PIN)</u></p>	25 P
 <p data-bbox="534 1579 798 1612"><u>PORTAL FRAME (SMALL)</u></p>	25 C

FIGURE C18 - ARCHES. Sheet 1 of 2

Figure C19 – Arches, sheet 2 of 2

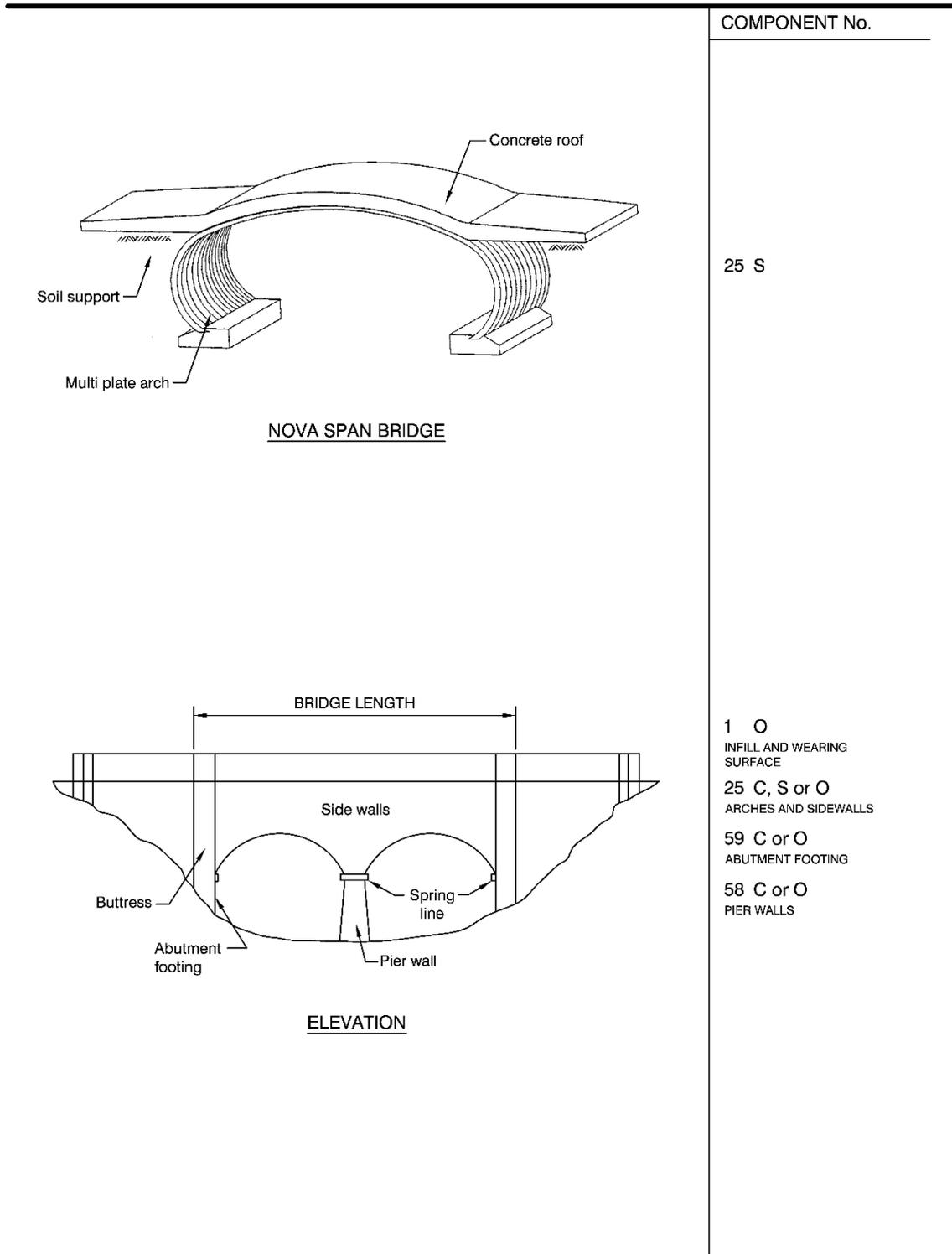
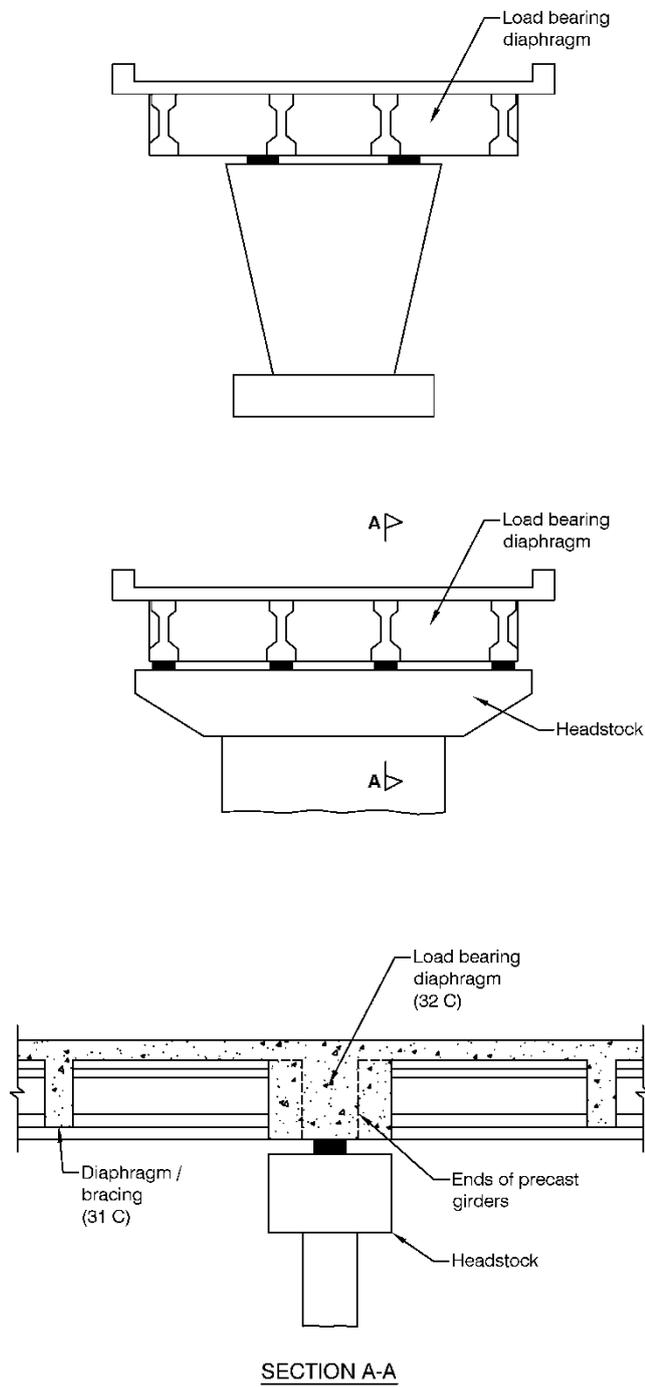


FIGURE C19 - ARCHES. Sheet 2 of 2

Figure C20 – Load bearing diaphragms



COMPONENT No.

32 C  
LOAD BEARING DIAPHRAGM

32 C  
LOAD BEARING DIAPHRAGM

31 C  
DIAPHRAGM / BRACING

32 C  
LOAD BEARING DIAPHRAGM

FIGURE C20 - LOAD BEARING DIAPHRAGMS

Figure C21 – Diaphragm/bracing

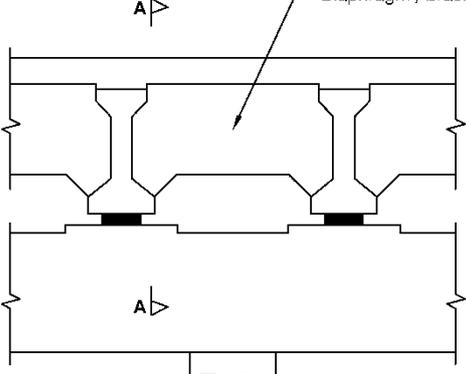
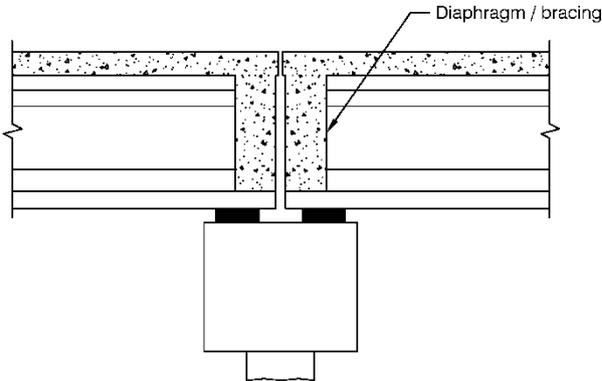
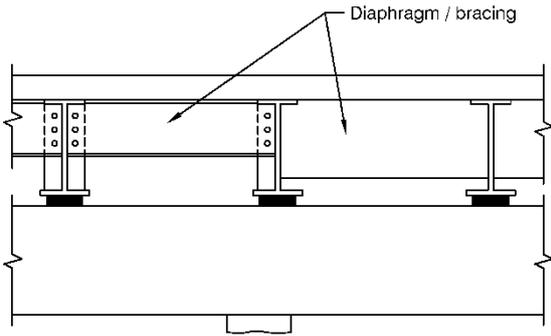
	COMPONENT No.
	<p>31 C DIAPHRAGM / BRACING</p>
 <p style="text-align: center;">SECTION A-A</p>	<p>31 C DIAPHRAGM / BRACING</p>
	<p>31 S 31 C DIAPHRAGM / BRACING</p>

FIGURE C21 - DIAPHRAGM/BRACING

Figure C22 – Bearings, sheet 1 of 2

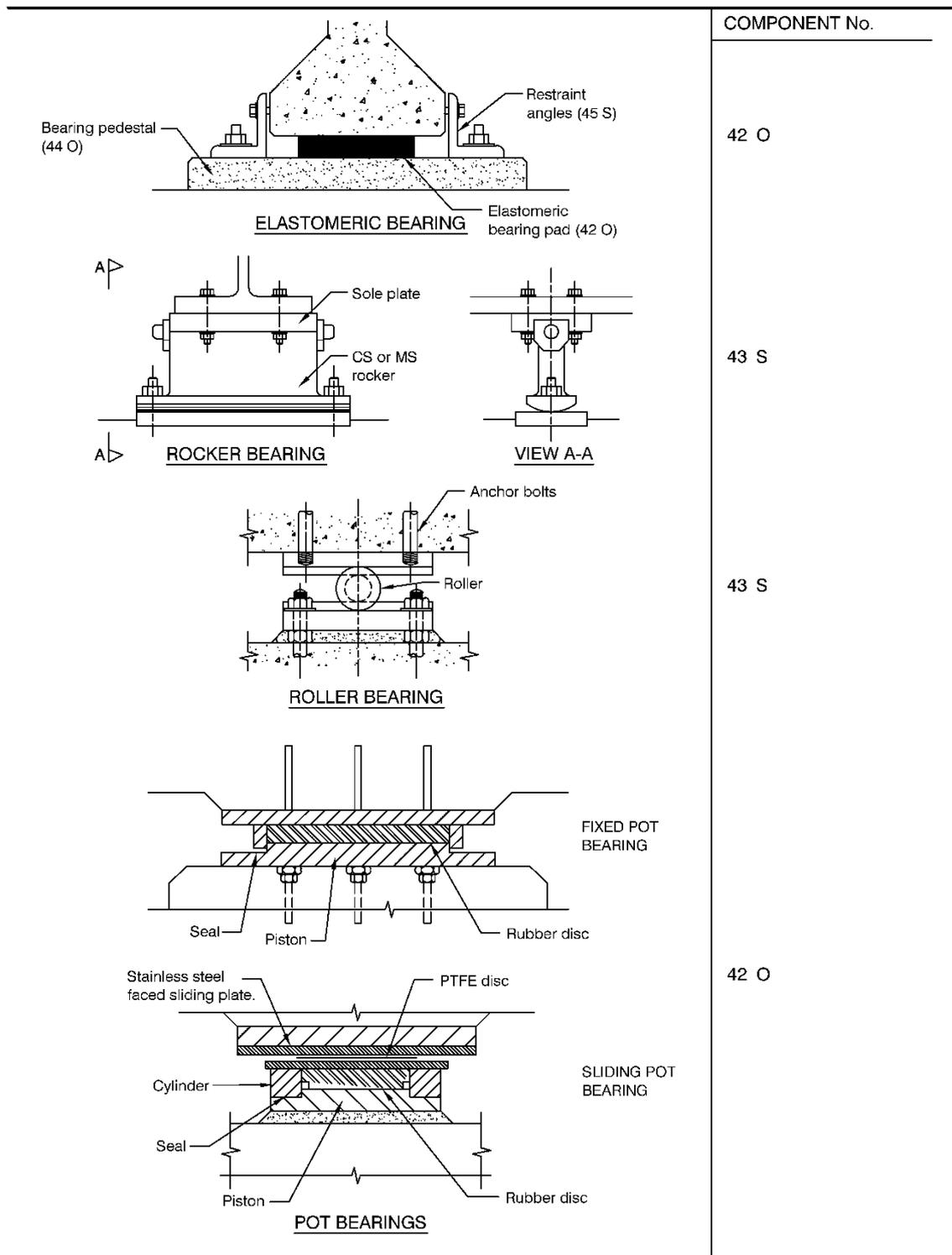


FIGURE C22 - BEARINGS. Sheet 1 of 2

Figure C23 – Bearings, sheet 2 of 2

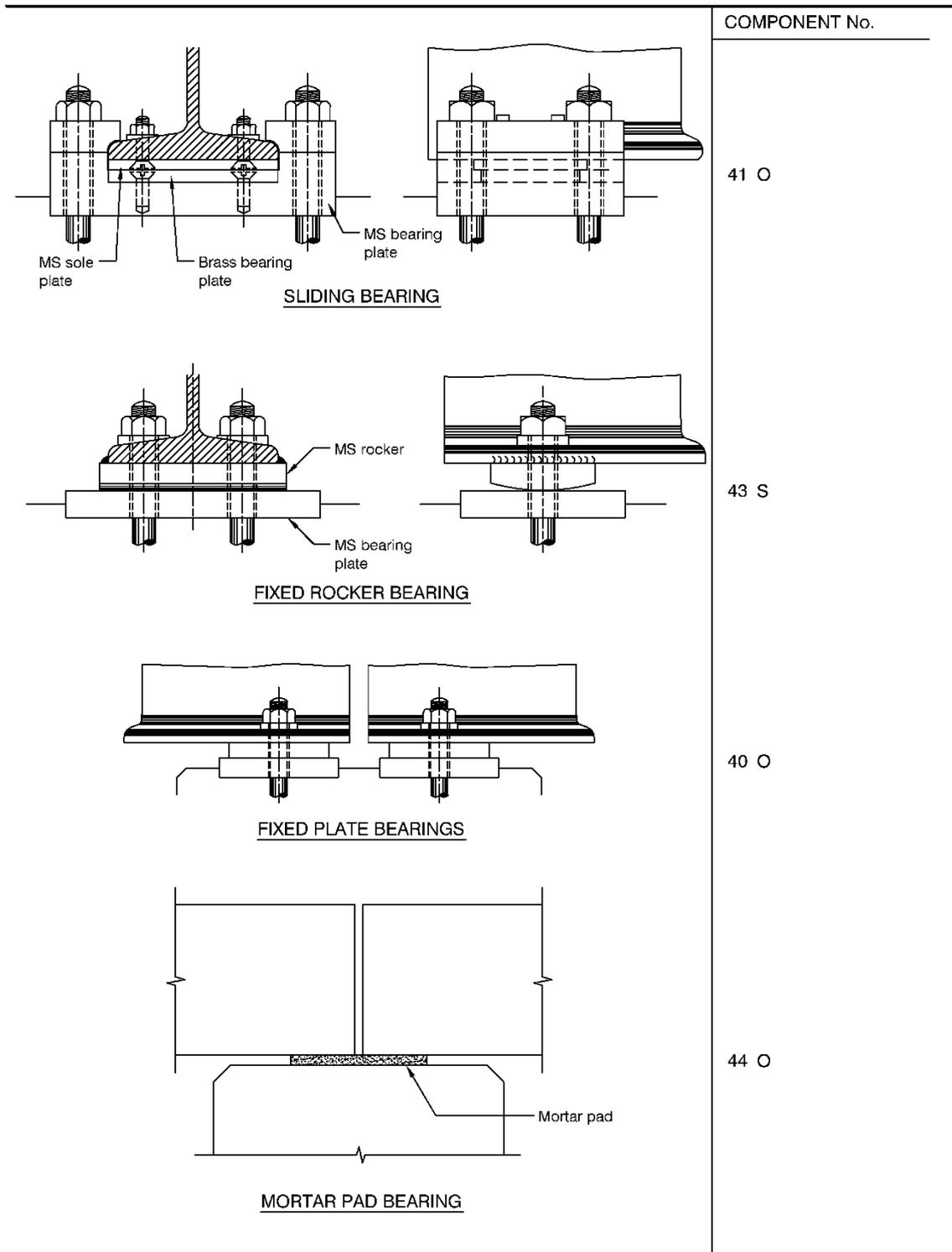


FIGURE C23 - BEARINGS. Sheet 2 of 2

Figure C24 – Abutments, sheet 1 of 2

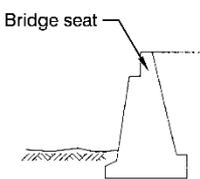
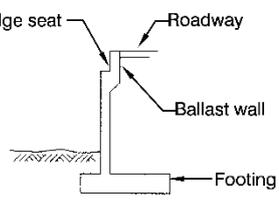
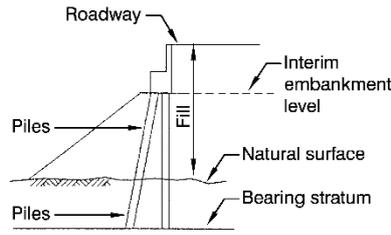
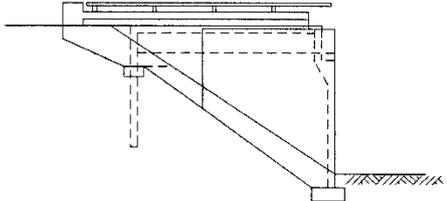
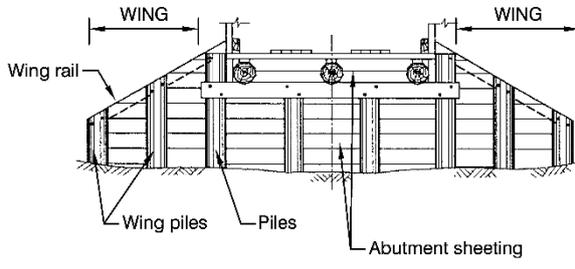
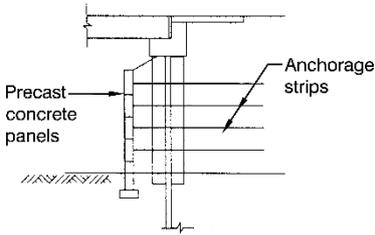
	COMPONENT No.
 <p><b>SOLID GRAVITY</b> (Concrete or Masonry)</p>	<p>50 C or O ABUTMENT</p>
 <p><b>CANTILEVER</b></p>	<p>59 C FOOTINGS</p>
 <p><b>SPILLTHROUGH ON PILES</b></p>	<p>50 C ABUTMENT</p>
 <p><b>CLOSED END - CELLULAR</b></p>	<p>50 C ABUTMENT</p>
 <p><b>TIMBER ABUTMENT</b></p>	<p>54 T HEADSTOCKS (1 &amp; 2)</p> <p>56 T PILES</p> <p>52 T, P, C, O, S SHEETING</p> <p>60 T, P, S WING PILES</p> <p>51 T, P, O, C WINGWALLS</p>
 <p><b>REINFORCED SOIL</b></p>	<p>50 C ABUTMENT</p> <p>52 P PRECAST PANEL</p>

FIGURE C24 - ABUTMENTS. Sheet 1 of 2

Figure C25 – Abutments, sheet 2 of 2

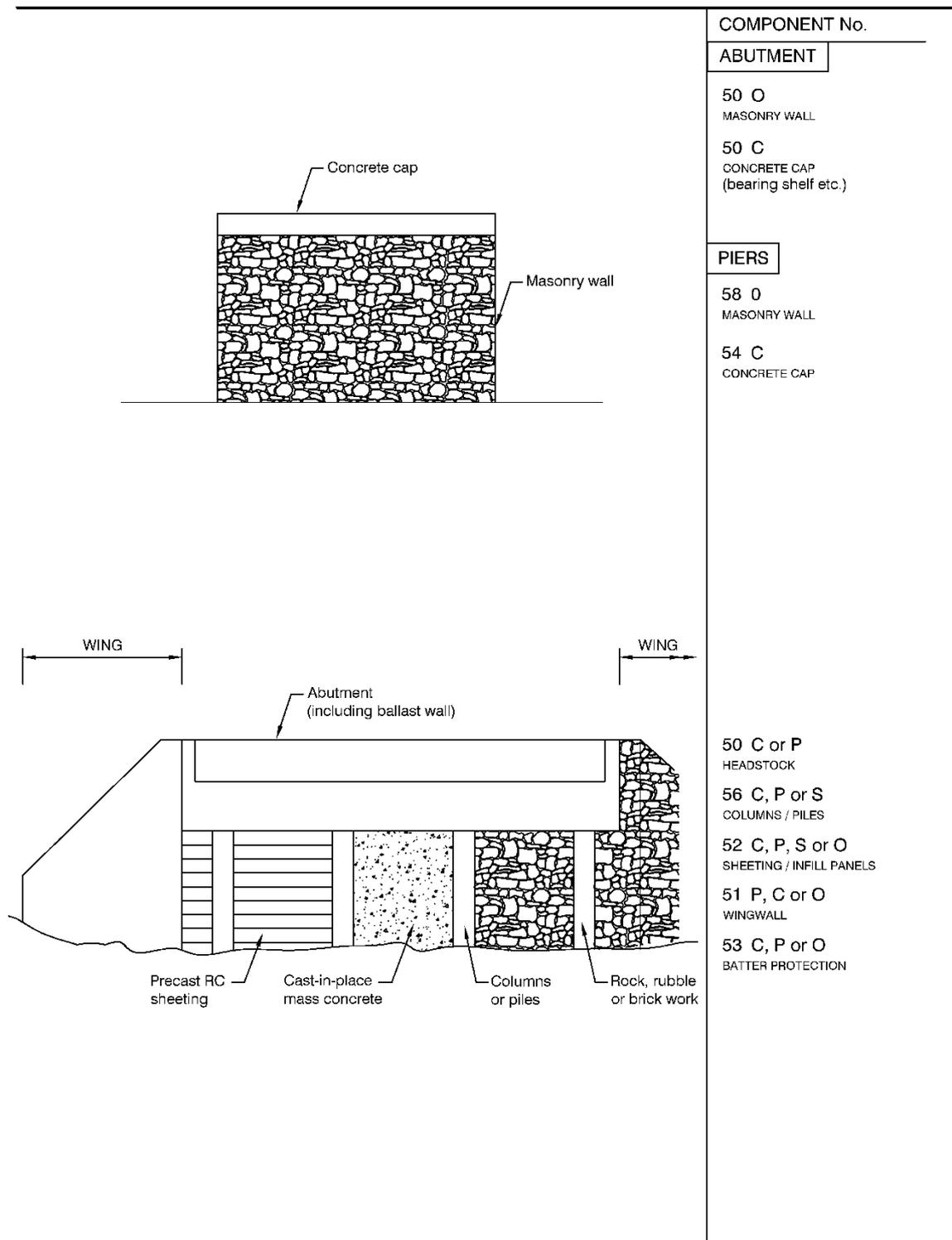


FIGURE C25 - ABUTMENTS. Sheet 2 of 2

Figure C26 - Piers

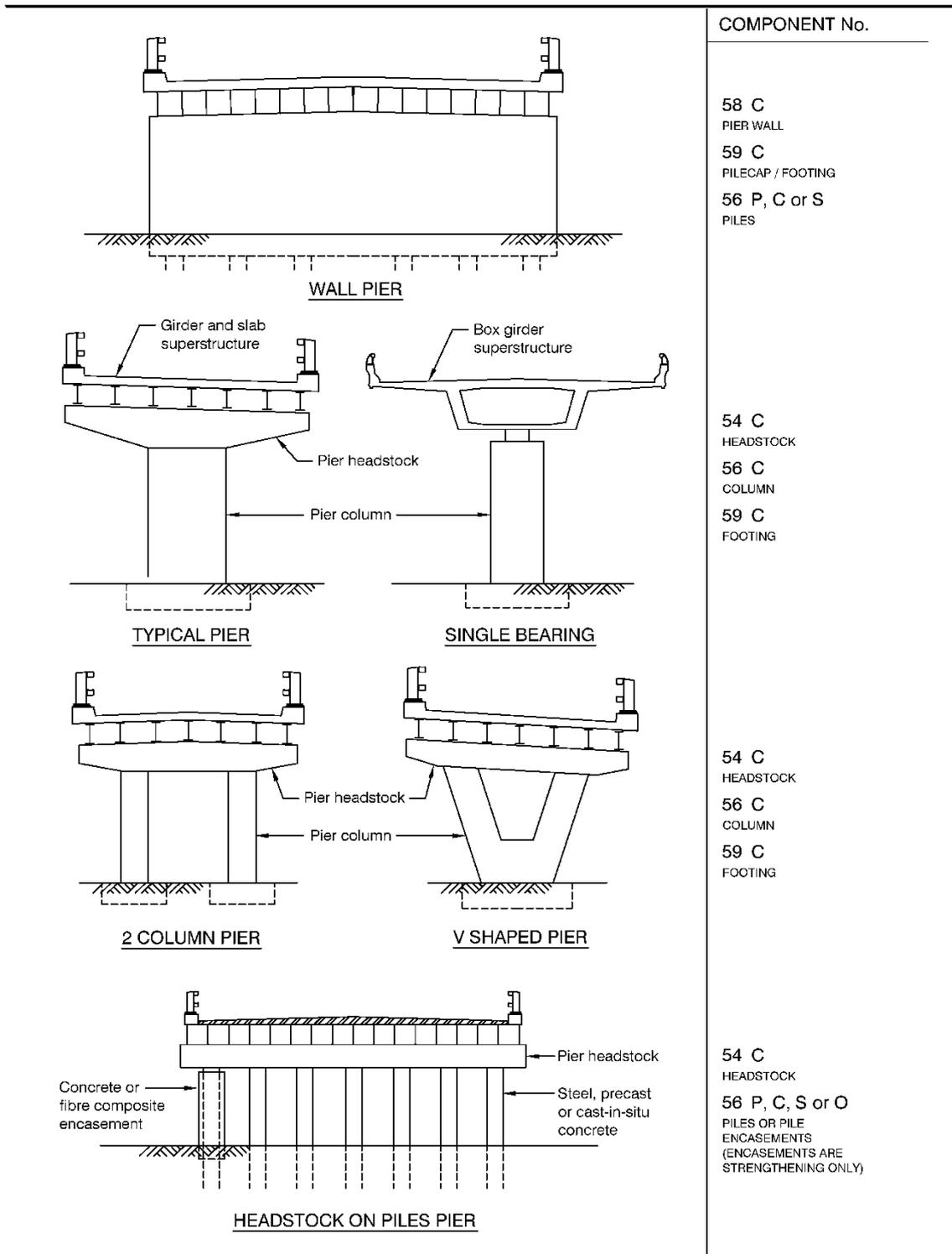


FIGURE C26 - PIERS

Figure C27 – LTMS Structures, sheet 1 of 2

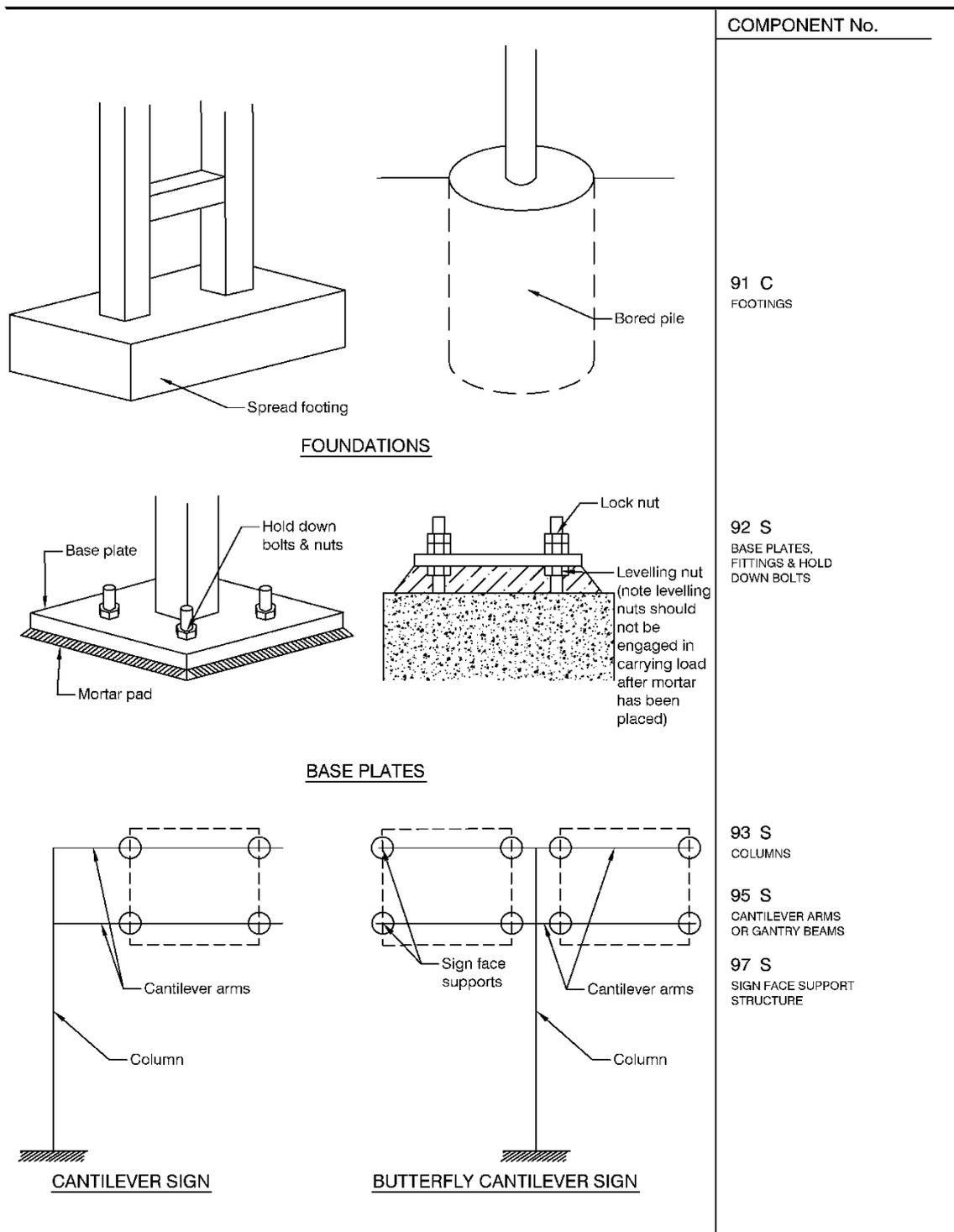


FIGURE C27 - LTMS STRUCTURES. Sheet 1 of 2

Figure C28 – LTMS Structures, sheet 2 of 2

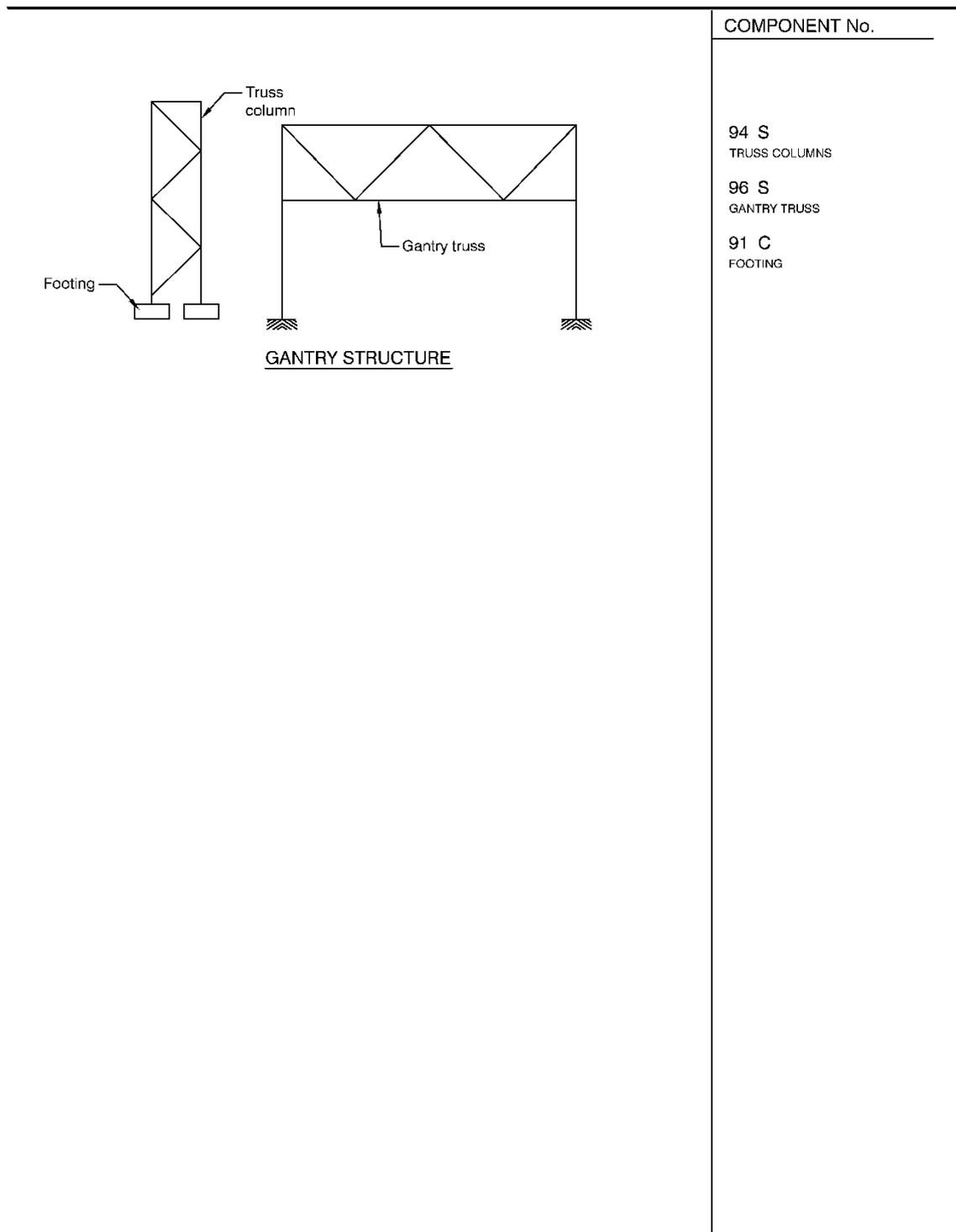


FIGURE C28 - LTMS STRUCTURES. Sheet 2 of 2

Figure C29 – Retaining walls

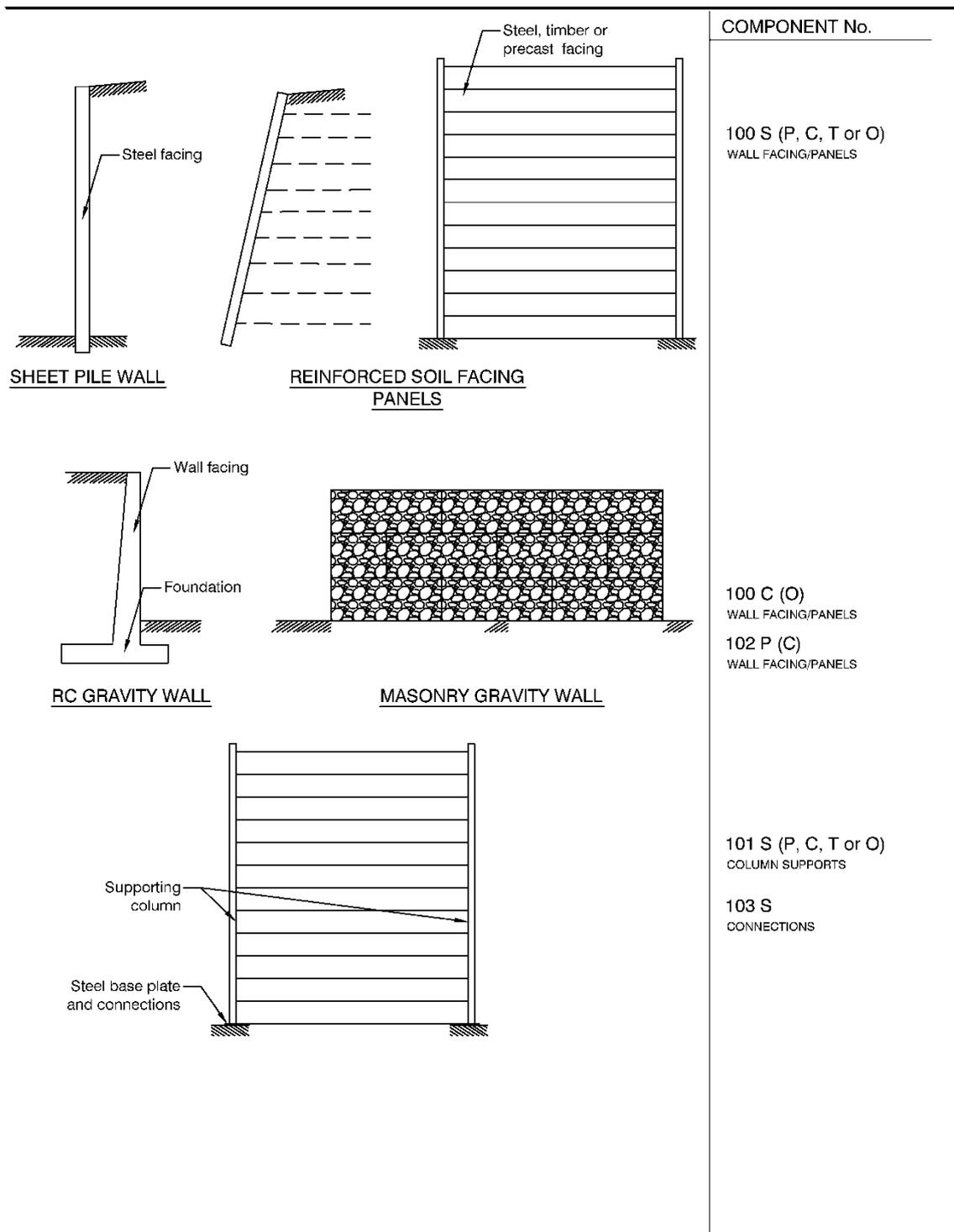
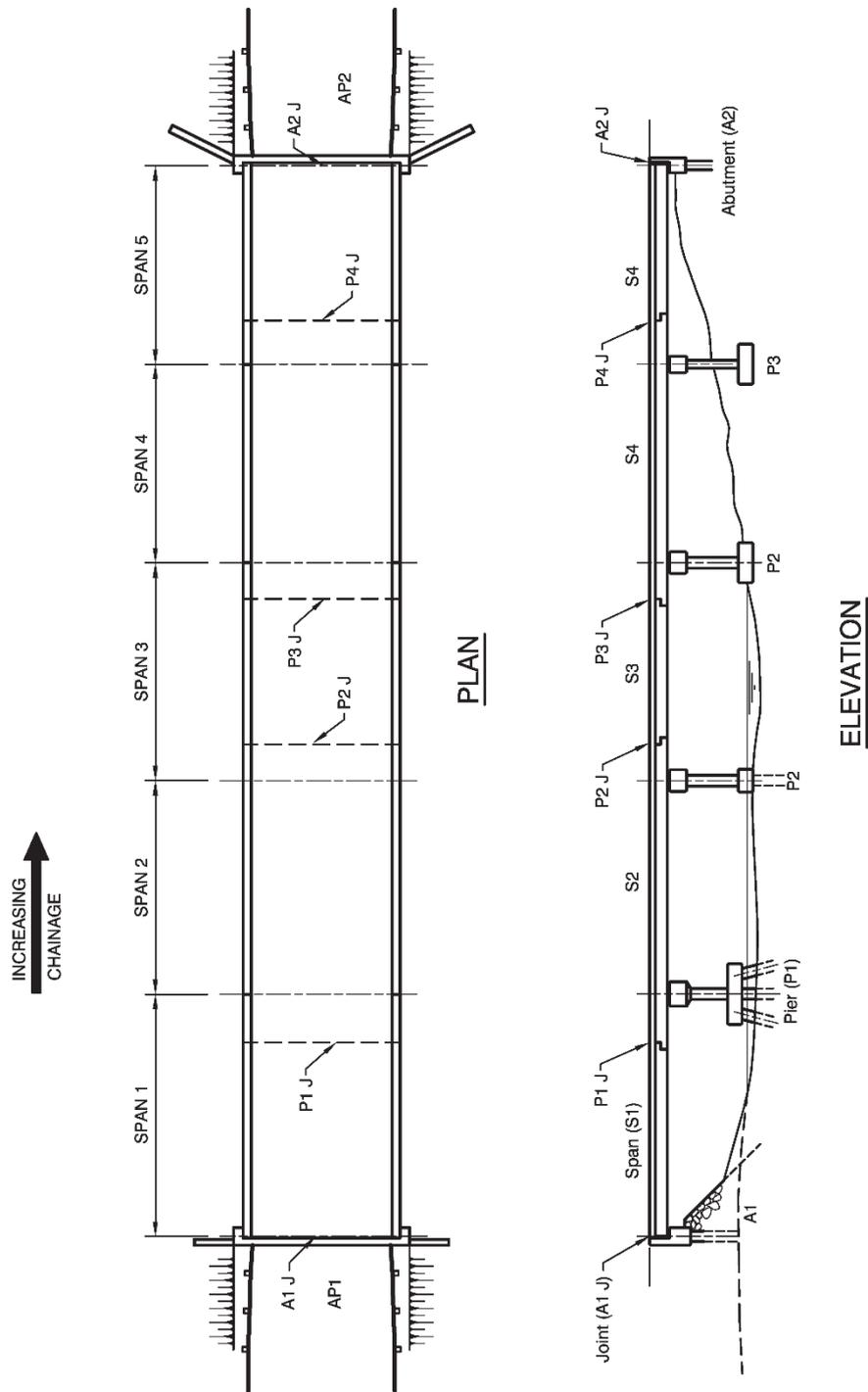


FIGURE C29 - RETAINING WALLS

Figure C30 – Terminology for suspended span bridges



**Figure C31 – Terminology for pedestrian bridges**

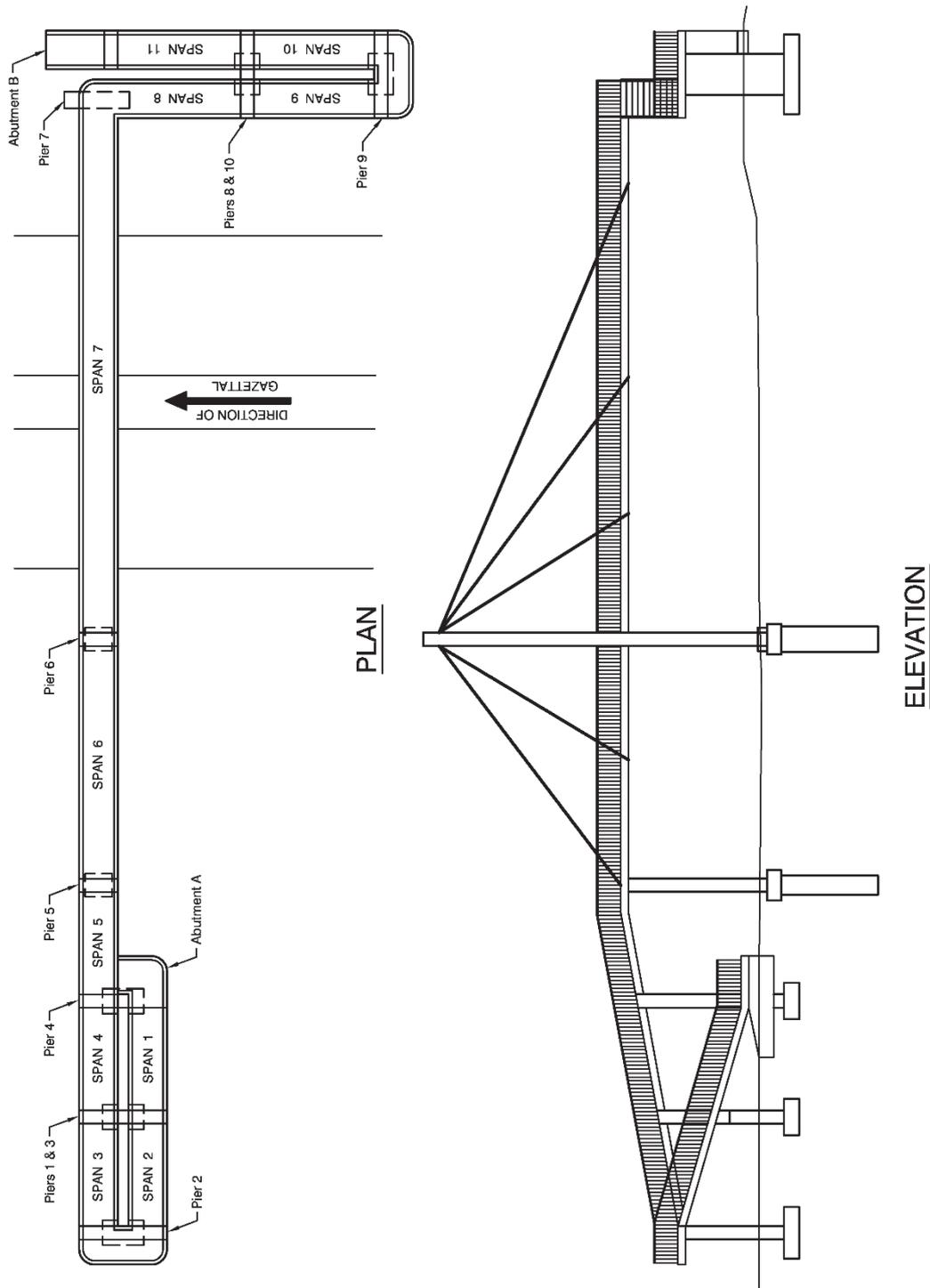
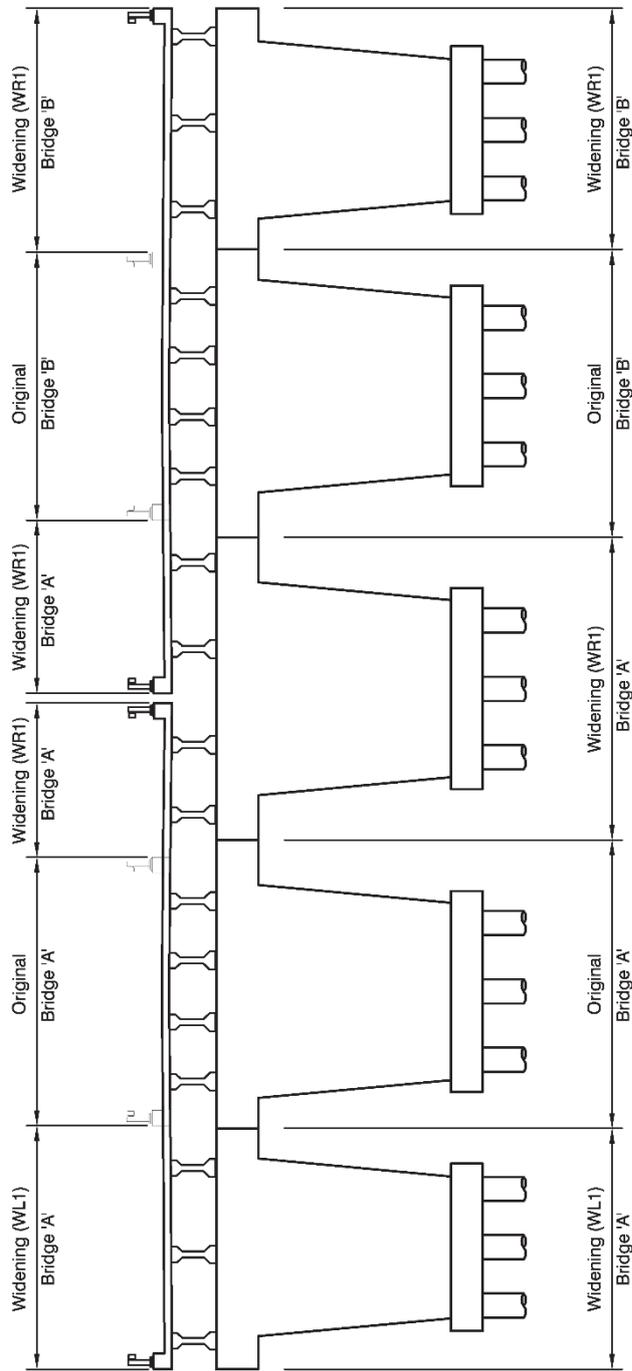


Figure C32 – Terminology for widened bridges



Bridge 'A' - built 1975 ; Bridge 'B' - built 1980  
 Note that any SHARED widening shall be considered to be part of the first structure to be built

**Figure C33 – Terminology for tunnels**

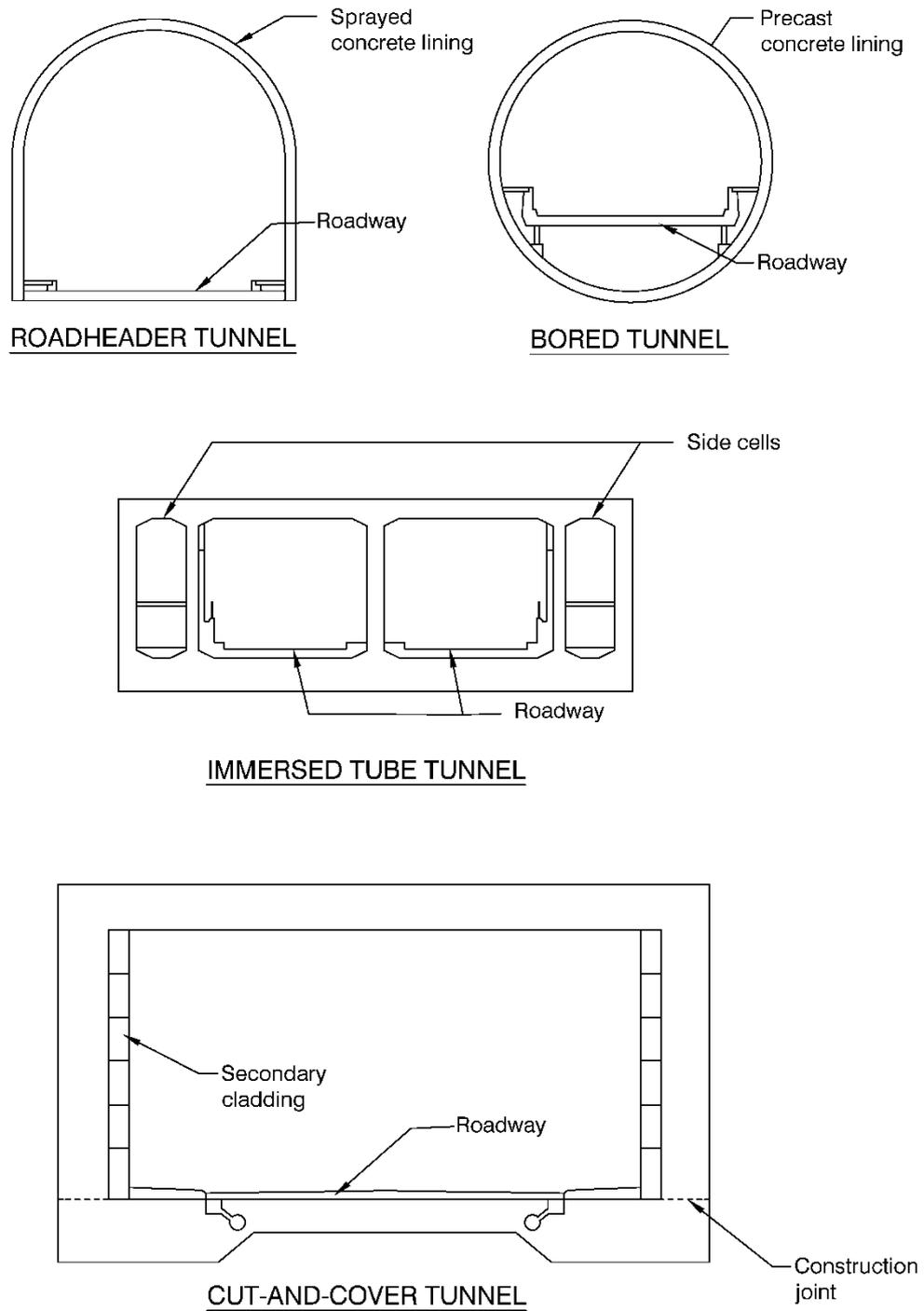


FIGURE C33 - TERMINOLOGY FOR TUNNELS

