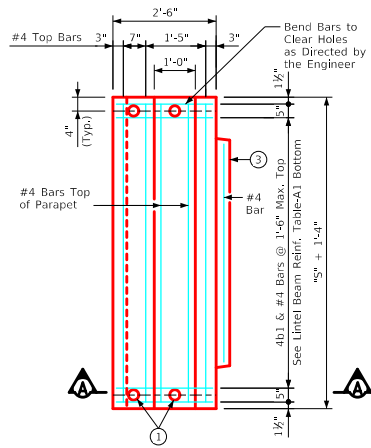
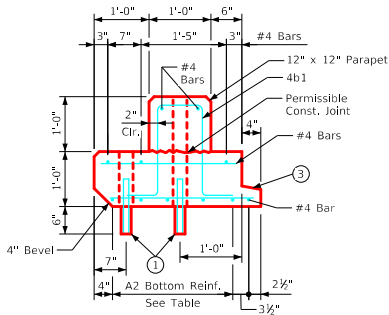


REVISED 10-2021: Updated width dimension on Plan of Square Lintel Beam & Plan View of Skewed Lintel Beam. ENGLISHIGNEDPRECASTCULVERTS.DGN - PES 10-20-T3 - THIS SHEET ISSUED 12-2020.



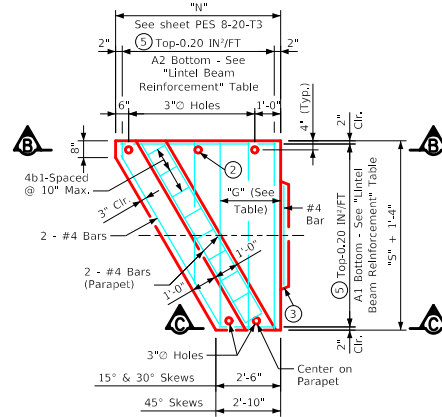
Plan of Square Lintel Beam
(Tongue Option Shown)



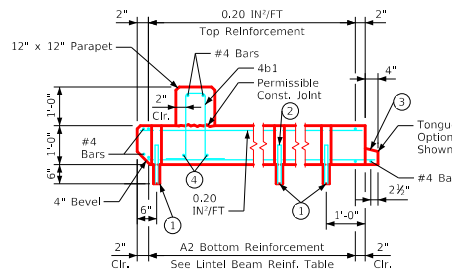
Section A-A
(Tongue Option Shown)

0° Skew Lintel Beam
(For Skews up to 7°30')

Span S (FT)	Lintel Beam Reinforcement			
	Bottom Reinforcement		Rebar Option	
	WWR Option		A1	A2
14	A1 (IN ² /FT)	A2 (IN ² /FT)	#5 @ 12"	4 - #5 @ 8"
16	0.26	0.51	#5 @ 12"	4 - #5 @ 8"
16	0.30	0.59	#5 @ 12"	5 - #5 @ 6"



Plan View



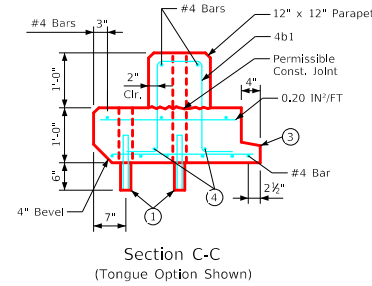
Section B-B

Skewed Lintel Beam
(For Skews of 7°30' to 45°)

Span S (FT)	Length G (14' - 16' Spans) Along Barrel C of Skewed Lintel Beam			
	Box Rise	15° Skew	30° Skew	45° Skew
14	4' to 12'	2'-5 1/16"	4'-7 1/8"	7'-8 1/8"
	13' & 14'	2'-6 1/8"	4'-8"	7'-9 1/8"
16	4' to 12'	2'-9"	5'-2 3/8"	8'-8 1/8"
	13' & 14'	2'-9 1/8"	5'-2 1/8"	8'-9 1/8"

Span S (FT)	Lintel Beam Reinforcement			
	Bottom Reinforcement		Rebar Option	
	WWR Option		A1	A2
14	A1 (IN ² /FT)	A2 (IN ² /FT)	#7 @ 12"	#7 @ 6"
16	0.56	1.12	#7 @ 12"	#7 @ 6"
16	0.73	1.46	#8 @ 12"	#8 @ 6"

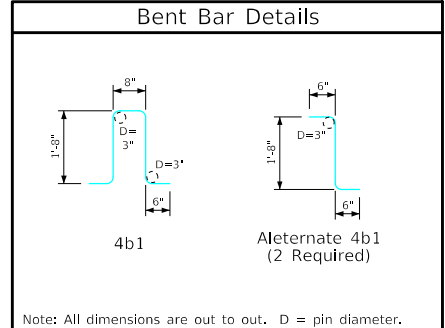
Span S (FT)	Skewed Parapet Reinforcement		
	Bottom Reinforcement		
	15° Skew	30° Skew	45° Skew
14	2 - #8	3 - #7	3 - #8
16	2 - #8	2 - #9	3 - #9



Section C-C
(Tongue Option Shown)

Notes:

- 1 Precast lintel beams shall be constructed in accordance with precast barrel and end section details and notes, except as modified below:
- 2 Reinforcing for precast lintels and parapets shall be either welded wire reinforcing (WWR) meeting the requirements of AASHTO LRFD Section 5 or reinforcing bars meeting the requirements of ASTM A615 (60 KSI). Wire spacing for WWR shall not exceed 4 inches for primary steel and 8 inches for distribution steel.
- 3 Place #8 dowel, 1'-0" long into 2 inch dia. hole in the top of the wall section and 3 inch dia. hole in the lintel beam. Fill holes with grout.
- 4 Cast additional 3 inch holes to maintain a 4 foot maximum hole spacing.
- 5 Check the location to determine whether a tongue or a groove is used. Tongue and groove to terminate at culvert radius.
- 6 See "Skewed Parapet Reinforcement" table.
- 7 Areas shown are for welded wire fabric. If rebar is used, #4 at a max. of 11 inch spacing should be used.



10-2021

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Standard Design
Single Precast Reinforced Concrete Box Culverts
December, 2020

Type 3 Lintel Beam Details

PES 10-20-T3

For Skews 0° to 45°; 14' - 16' Spans