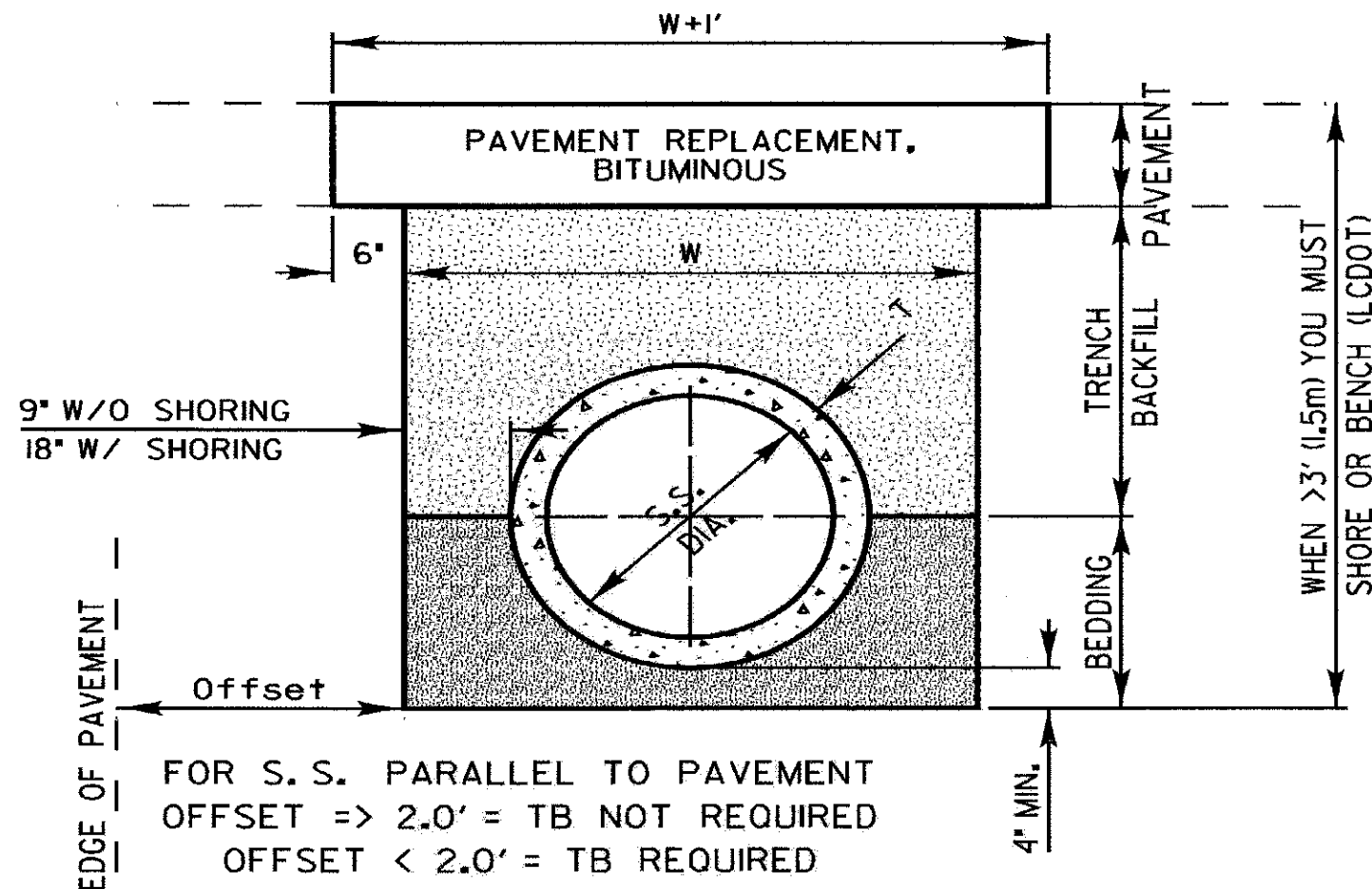


ENGLISH		TRENCH WIDTH (W)		MIN OFFSET FROM E.O.P.* FOR NO TB		1/2 PIPE AREA [O.D.] (SQ FT)
S.S. DIA.	T	WITHOUT SHORING	WITH SHORING	WITHOUT SHORING	WITH SHORING	
10"	2"	2.67'	4.17'	3.33'	4.08'	0.53
12"	2"	2.83'	4.33'	3.42'	4.17'	0.70
15"	2 1/4"	3.13'	4.63'	3.56'	4.31'	1.04
18"	2 1/2"	3.42'	4.92'	3.71'	4.46'	1.44
21"	2 3/4"	3.71'	5.21'	3.85'	4.60'	1.92
24"	3"	4.00'	5.50'	4.00'	4.75'	2.45
27"	3 1/4"	4.29'	5.79'	4.15'	4.90'	3.06
30"	3 1/2"	4.58'	6.08'	4.29'	5.04'	3.73
36"	4"	5.17'	6.67'	4.58'	5.33'	5.28
42"	4 1/2"	5.75'	7.25'	4.88'	5.63'	7.09
48"	5"	6.33'	7.83'	5.17'	5.92'	9.17

\* TO CENTER LINE OF PIPE


**DESIGN NOTES:**

1. Trench backfill is required if the storm sewer or culvert offset from the edge of the pavement is less than the tabulated values (the inner trench wall is closer than 2' to the edge of pavement)
2. Payment for the trench backfill shall not exceed the quantity computed using the maximum trench width dimensions. If the trench is excavated beyond these limits, the contractor shall furnish and place any additional trench backfill at his/her expense.
3. If the trench width is less than the above maximum values, payment will be based on the actual dimensions of the dug trench.
4. Bedding shall be placed from 4' under the pipe to the spring line of the pipe and is incidental to the corresponding storm sewer or culvert pay item.
5. If any part of the excavation for a drainage structure falls within 2' of the edge of pavement, the space between the side of the excavation and the outer surface of the drainage structure shall be filled with trench backfill. the cost of this item is included in the pay item for the drainage structure.



SCALE: 1" = 2'

REVISIONS	DATE
Text Revision	11/06/07


**APPROVED BY: M. G. ZEMAITIS**  
 DATE: APRIL 1, 2007

**TRENCH WIDTHS FOR  
 TRENCH BACKFILL &  
 PAVEMENT REPLACEMENT,  
 BITUMINOUS**

**LC0020**