

REVISIONS / REMARKS					
NO.	DESCRIPTION	DATE	BY	DESIGNED BY:	JRM
				CHECKED BY:	MPK/JLC
				DATE:	1/22/2010

FILE NAME:

HDR
HDR Engineering, Inc.
38 N LaSalle Street, Suite 3220
Chicago, IL 60602
312-443-4988

LakeCounty
Division of Transportation

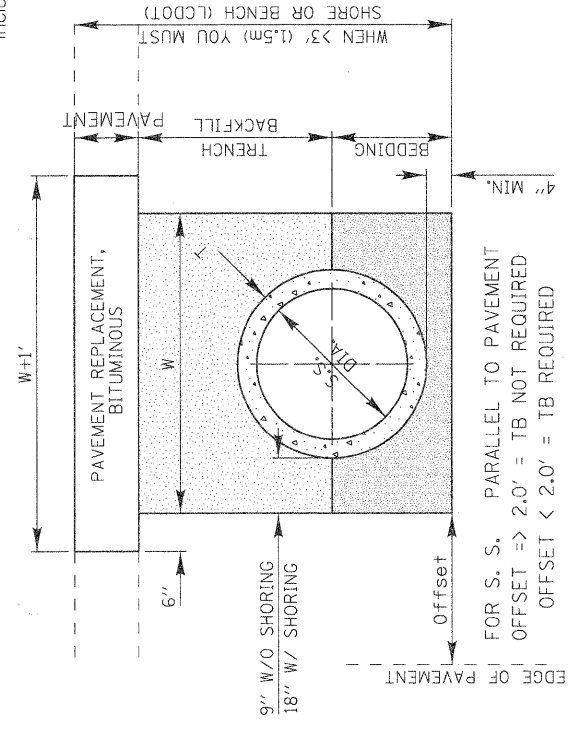
LCDOT DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CH	136	04-00136-06-CH	91	107

63415

ENGLISH	TRENCH WIDTH (W)		MIN OFFSET FROM E.O.P.* FOR NO TB	1/2 PIPE AREA [O.D.]
	WITHOUT SHORING	WITH SHORING		
10"	2.67'	3.33'	4.08'	0.53
12"	2.83'	3.42'	4.17'	0.70
15"	3.13'	3.56'	4.31'	1.04
18"	3.42'	3.71'	4.46'	1.44
21"	3.71'	3.85'	4.60'	1.92
24"	4.00'	4.00'	4.75'	2.45
27"	4.29'	4.15'	4.90'	3.06
30"	4.58'	4.29'	5.04'	3.73
36"	5.17'	4.58'	5.33'	5.28
42"	5.75'	4.88'	5.63'	7.09
48"	6.33'	5.17'	5.92'	9.17

* TO CENTER LINE OF PIPE



DESIGN NOTES:

- 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)
- 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.
- If the trench width is less than the above maximum values, payment will be based on the actual dimensions of the dug trench.
- 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.
- 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'

LC0020

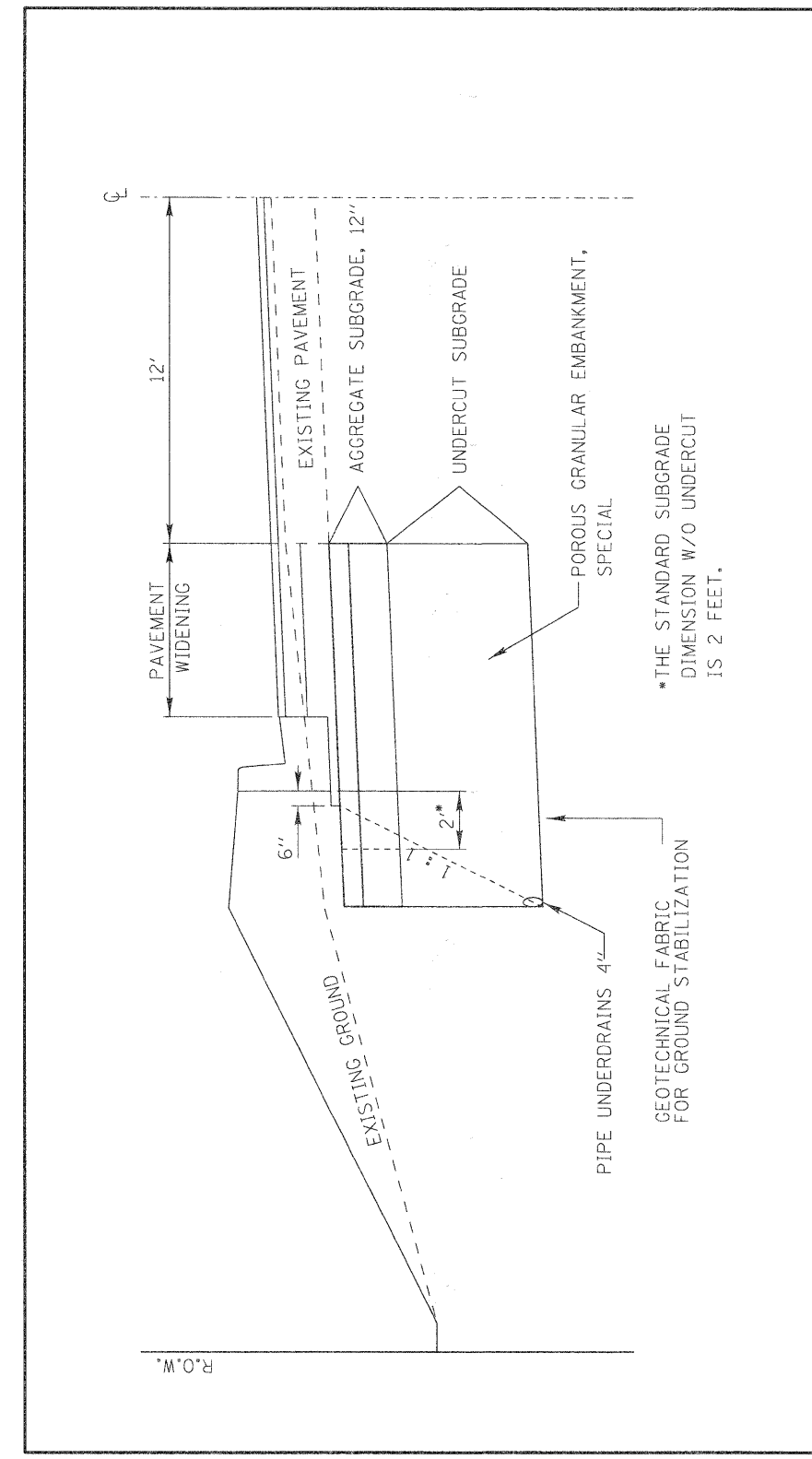
APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

LakeCounty
Division of Transportation

11/06/07

Text Revision

TRENCH WIDTHS FOR TRENCH BACKFILL & PAVEMENT REPLACEMENT, BITUMINOUS



SCALE:
HORIZONTAL 1" = 5'
VERTICAL 1" = 2.5'

IN UNSTABLE AREAS, THE SUBGRADE SHALL BE:
UNDERCUT (PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS PER CU YD);
REINFORCED WITH GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (PAID FOR PER SQ YD);
DRAINED BY INSTALLATION OF PIPE UNDERDRAINS, 4" (PAID FOR PER FOOT);
BACKFILLED WITH POROUS GRANULAR EMBANKMENT, SPECIAL (PAID FOR PER TON) AND;
TOPPED WITH AGGREGATE SUBGRADE, 12" (300mm) (PAID FOR PER SQ YD).

* THE STANDARD SUBGRADE DIMENSION W/O UNDERCUT IS 2 FEET.

LC2000

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

LakeCounty
Division of Transportation

REVISIONS

NO.	DATE	DESCRIPTION

UNDERCUT DETAIL