

ورقتين

٢٠٠٤ د قاسم صلاح الألفي
مدت

نسم حدت
اول حدت

Mansoura University
Faculty of Engineering
Civil Eng. Dept.

تخلفات حدت

First Year
Final Exam (First Term)
Civil Engineering Drawing

Date : 30 -12- 2010

Max. Degree (100)

Time allowed 3.0 Hours

Any missing data could be reasonably assumed.
All dimensions are in meter.

Question (1)

(75 Marks)

For the R. C. bridge structure illustrated in Fig. 1 **it is required to** draw with suitable scale:-

- 1- Complet Plan half earth removed. (25 Marks)
- 2- Sec. Elevation C-C. (25 Marks)
- 3- Upstream Sec. Side View A-A. (25 Marks)

Question (2)

(25 Marks)

For the plan illustrated in Fig. 2, **it is required to** draw with suitable scale:-

- 1- Complete reinforcement of the slab if the reinforcement is $8\phi 10/m$ in main direction and $6\phi 10/m$ in the other direction. (7 degrees)
- 2- Complete reinforcement of beams B1, B2, B3 and C1 if the reinforcement is as illustrated in the above table. (8 degrees)
- 3- Cross-sections A-A and X-X in beams B1 and C1. (5 degrees)
- 4- Reinforcement of the isolated footing if the reinforced footing is 2.0m x 2.0m and 70 cm depth with the reinforcement of $7\phi 16/m$ in both directions (plain concrete footing depth is 50 cm). (5 degrees)

Table of Reinforcement

beam	Section	Reinforcement			Strips
		bottom		above	
		Straight	bent		
B1	25 x 70	$4\phi 16$	$3\phi 16$	$2\phi 16$	$6\phi 8/m$
B2	25 x 70	$3\phi 16$	$3\phi 16$	$2\phi 16$	$6\phi 8/m$
B3	25 x 70	$3\phi 16$	$2\phi 16$	$2\phi 16$	$6\phi 8/m$
C1	25 x 70	$2\phi 16$	-----	$5\phi 16$	$6\phi 8/m$

Best Wishes
Prof. L.r. K.S. El-Alfy

Fig.1

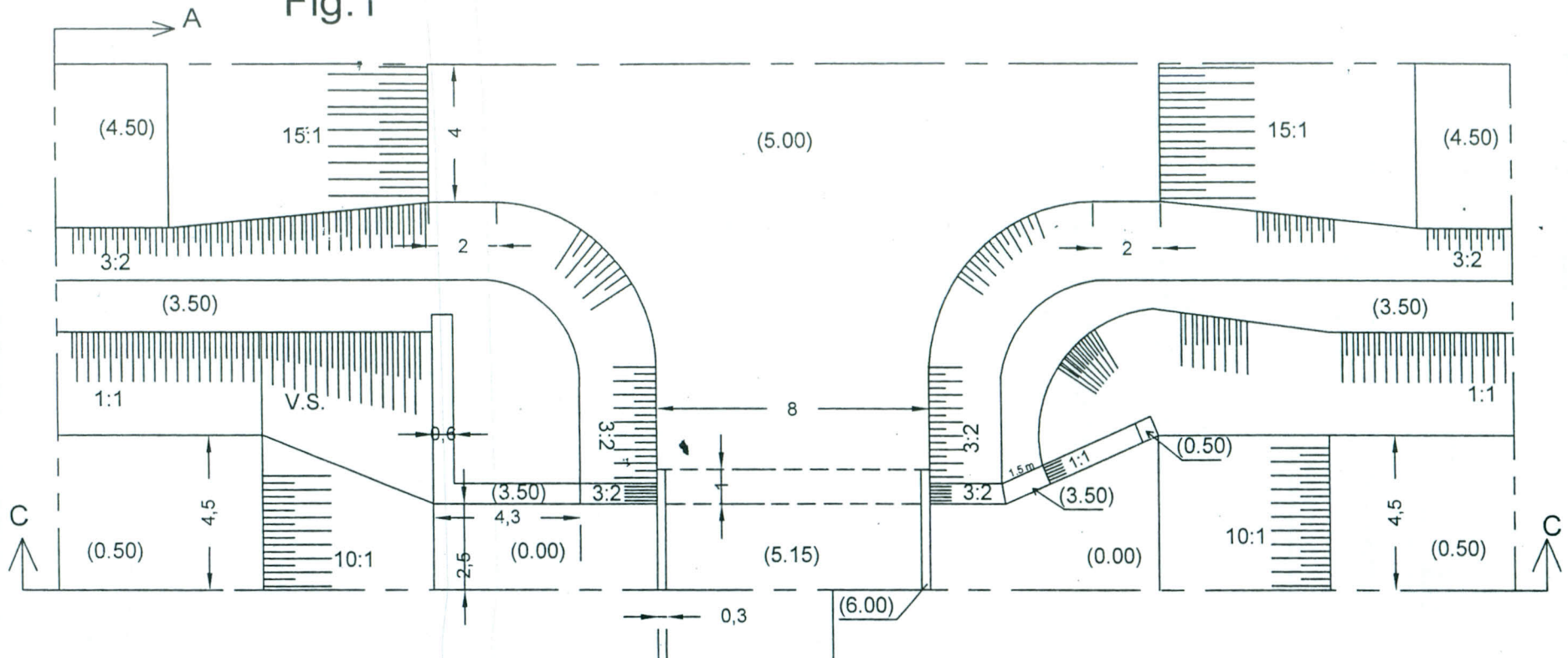
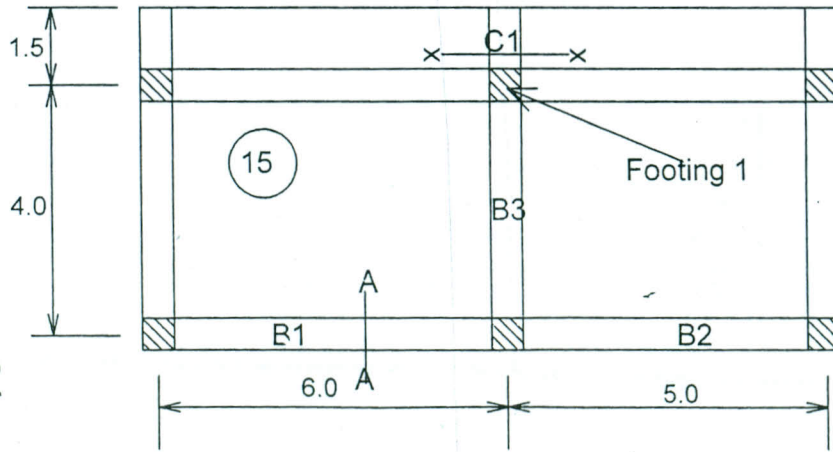


Fig.2



د.د. قاسم صلاح العلي
قديم ورقين

رسم هندسي
اولى عدد

Mansoura University
Faculty of Engineering
Civil Eng. Dept.
Date : 30-12- 2010

First Year
Second Term (Final Exam)
Civil Engineering Drawing
Time allowed 4.0 Hours

تخلفات قديم

Any missing data could be reasonably assumed.
All dimensions are in meter.

Question (1)

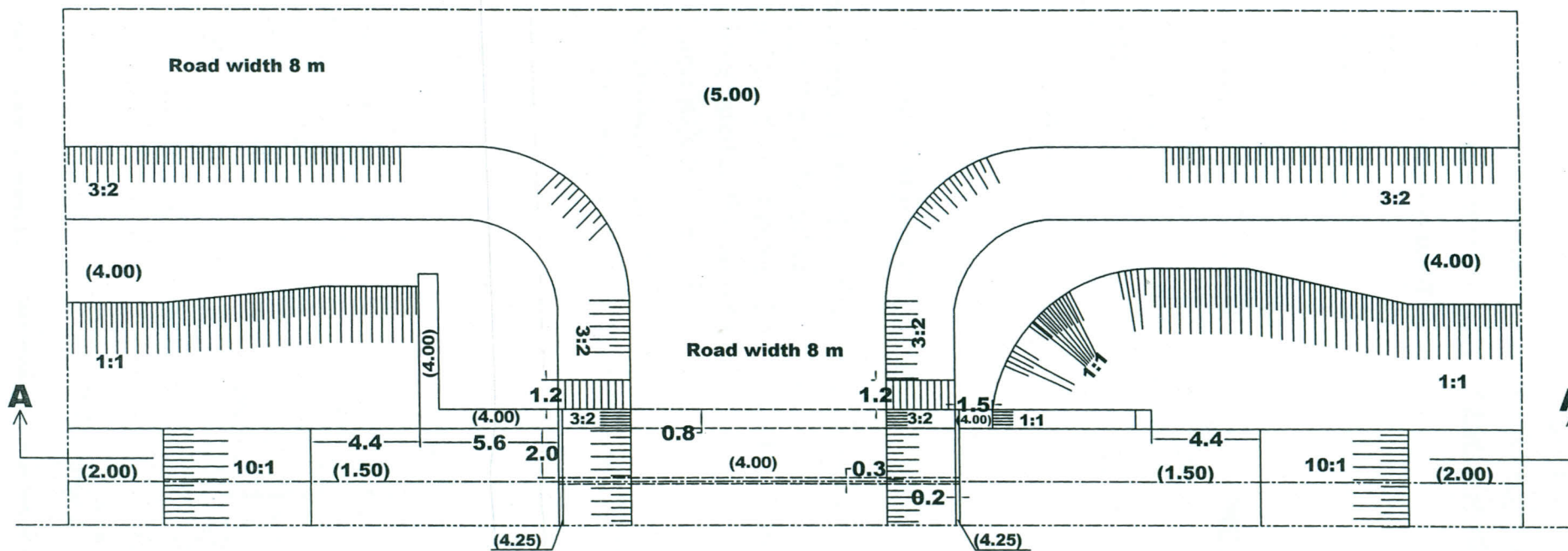
The following Figure shows half plan of two vents brick-R.C. culvert with slab thickness of 50 cm and brick stepped walls.

It is required to draw with suitable scale:-

- | | |
|----------------------------|--------|
| 1-Plan half earth removed. | (30%) |
| 2- Sec. Elevation A-A. | (20 %) |
| 3-Upstream Sec. Side View. | (25 %) |
| 4-Downstream Side View. | (25 %) |

Complete the required Pitching

Best Wishes
Prof. Dr. K.S. El-Alfy



vent inner dimensions 2x2 ms.

with my best wishes
 Prof. Dr. Kassem El-Alfy