



CONSTRUCTION
INDUSTRY COUNCIL
建造業議會

Bar Bender and Fixer Skilled Trade Test Mock Practical Test Paper

此文件關於鋼筋屈紮大工工藝測試考題。如有需要索取此文件的中文版本，請致電 2100 9232 與工藝測試中心聯絡。

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Enquiries

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Trade Test Paper

Trade : Bar Bender & Fixer
Grade : Skilled Worker

Test Paper A :
Bar Cutting & Bending 25%
Bar Fixing 75%

Test Content : 1 Cutting and bending of reinforcement (25 marks)

- i) Cut and bend reinforcement bars which are $\varnothing 16\text{mm}$ or above with the provided cutting and bending machine.
- ii) Cut reinforcement bars which are $\varnothing 10\text{ mm}$ or below with the cutting machine and bend with stirrup bending machine.

2. Fixing of reinforcement structure according to drawings provided (75 marks)

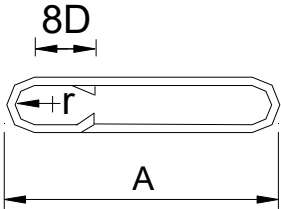
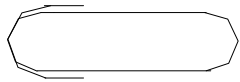
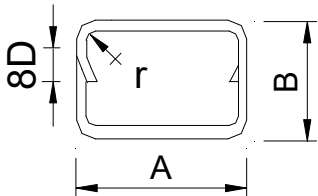

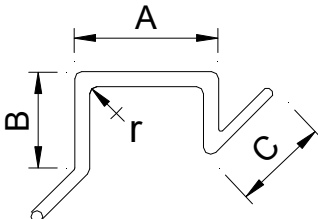
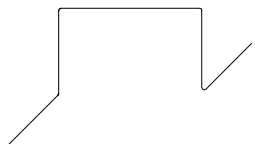
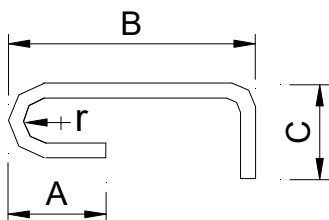

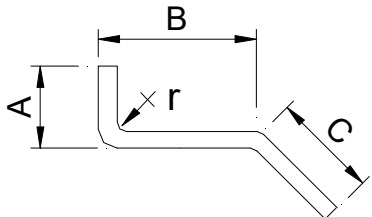

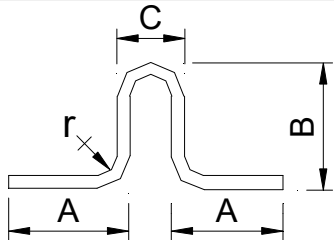

- i) W1 & W2 wall
- ii) C1 & C2 column
- iii) B1 & B2 beam
- iv) S1 slab

Duration : 6 Hours (Not including lunch time)

- Notes :
- (1) Candidate should read the attached "Notes to Candidates" before commencement of work.
 - (2) Candidate will be marked as fail if he / she does not carry out safety precautions during the test.
 - (3) The test paper consists of 8 pages. Total mark is 100. Passing mark is 60.

1. Cutting and Bending of Reinforcement

Candidate has 1T10 & 1T16 which are 4000mm long and required to cut and bend as following :

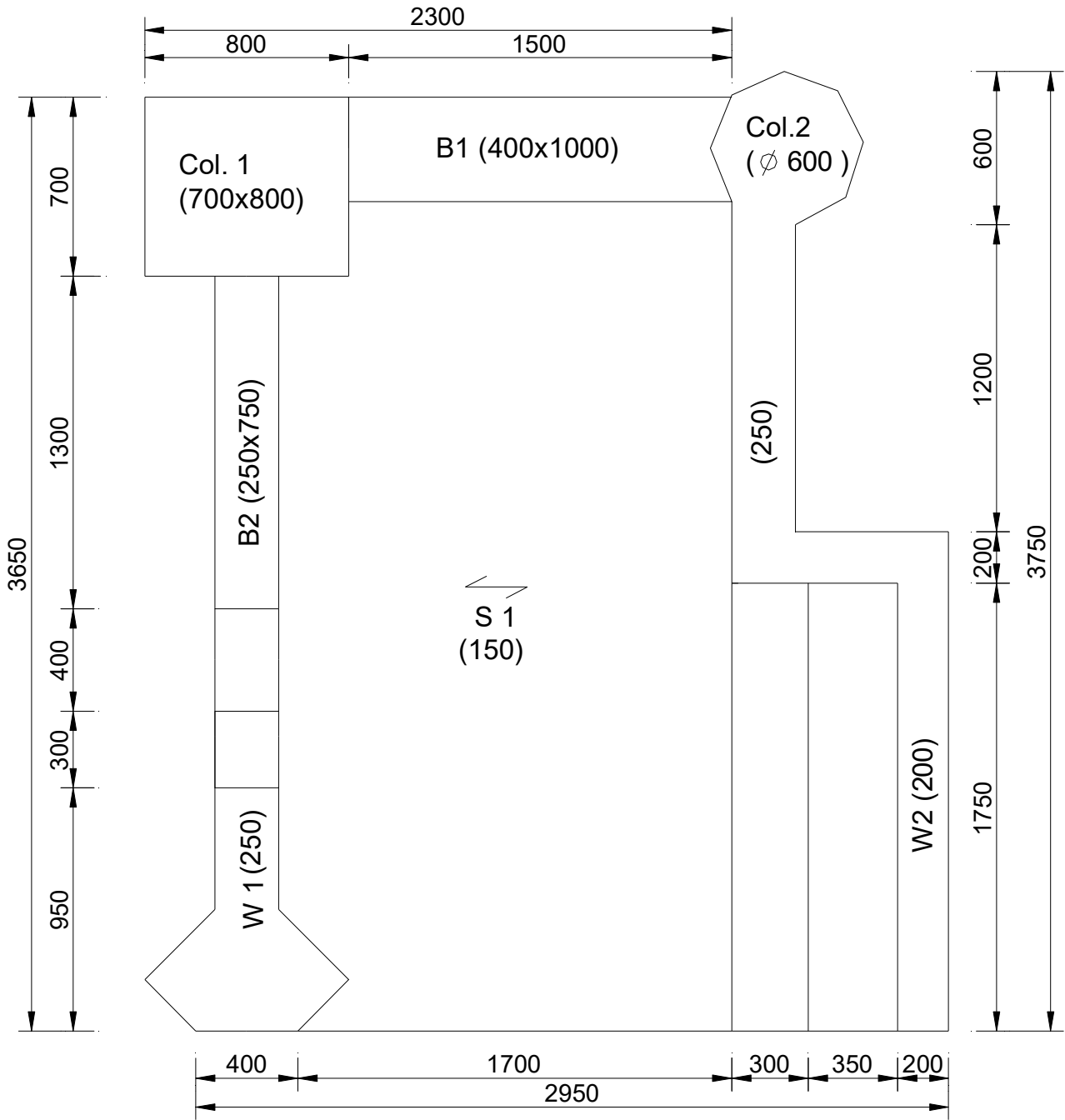
Item	Type	Specification	Length	Format
01	1 T10		A = 400	
02	1 T10		A = 250 B = 300	
03	1 T10		A = 200 B = 175 C = 200	
04	1 T16		A = 250 B = 600 C = 250	
05	1 T16		A = 250 B = 650 C = 250	
06	1 T16		A = 500 B = 300 C = 165	

Not to scale
All dimensions are in mm

r = Bend Radius

Mild Steel r = 2D
High Tensile T20 or Below r = 3D

2. Fixing of Reinforcement



Plan

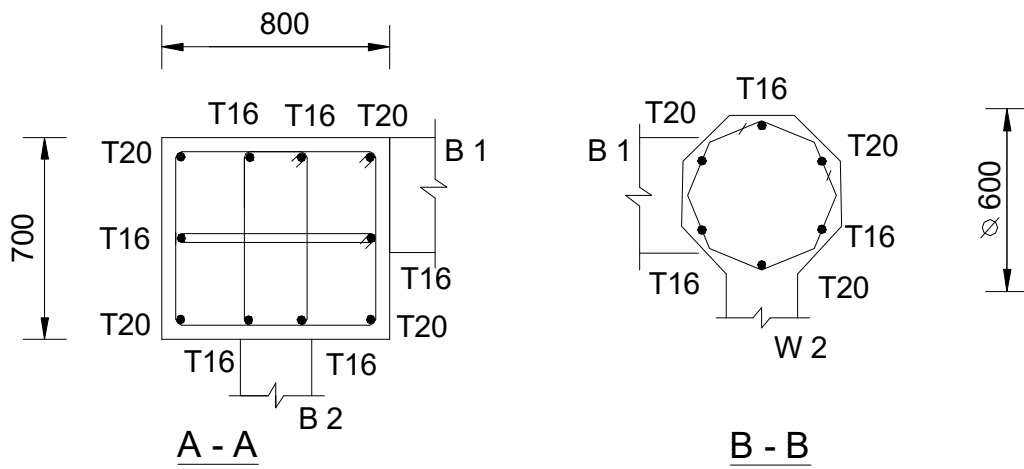
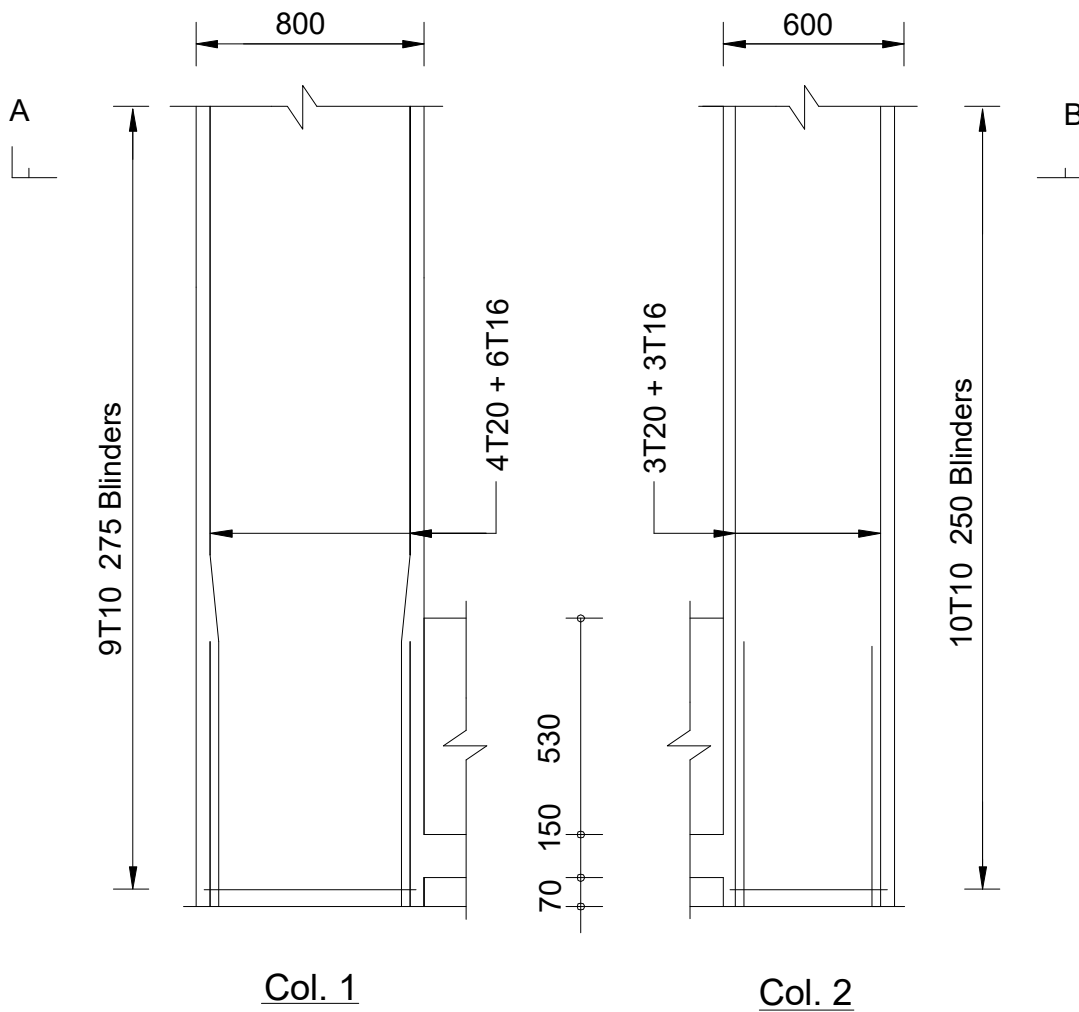
Outer most Conc. Cover	
Beam	40
Column	40
Wall	25
Slab	25

Unless stated, all the lapping and anchorage length to be 42 x bar diameter (smallest bar size).

T10	420
T12	510
T16	680
T20	840
T25	1050
T32	1350
T40	1680

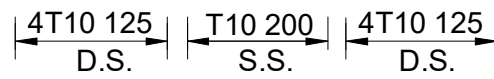
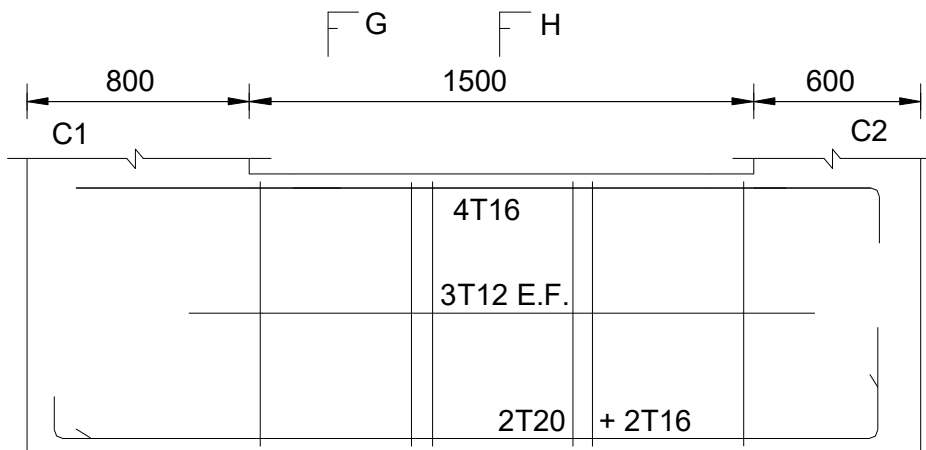
Not to scale
All dimensions are in mm

2. Fixing of C1 & C2 Column

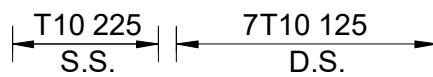
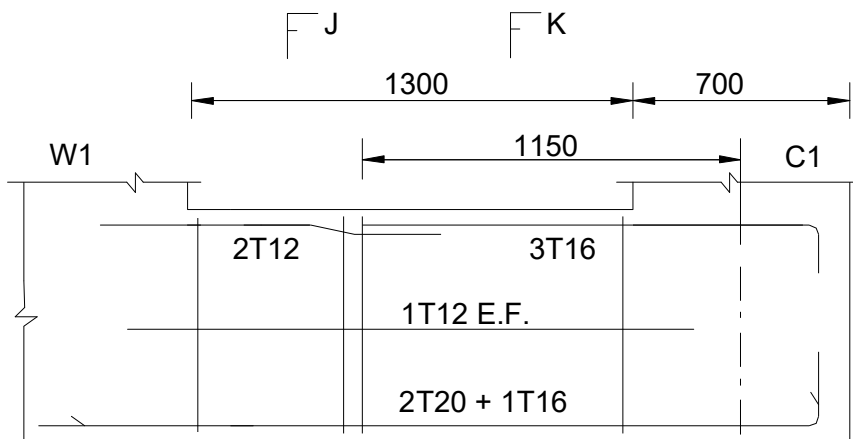


Not to scale
All dimensions are in mm

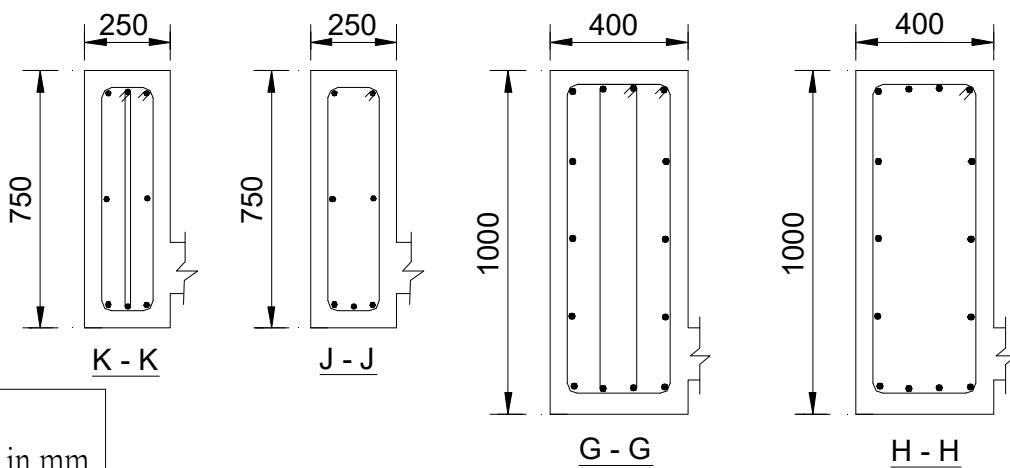
2. Fixing of B1 & B2 Beam



B1 (400x1000) INV.780

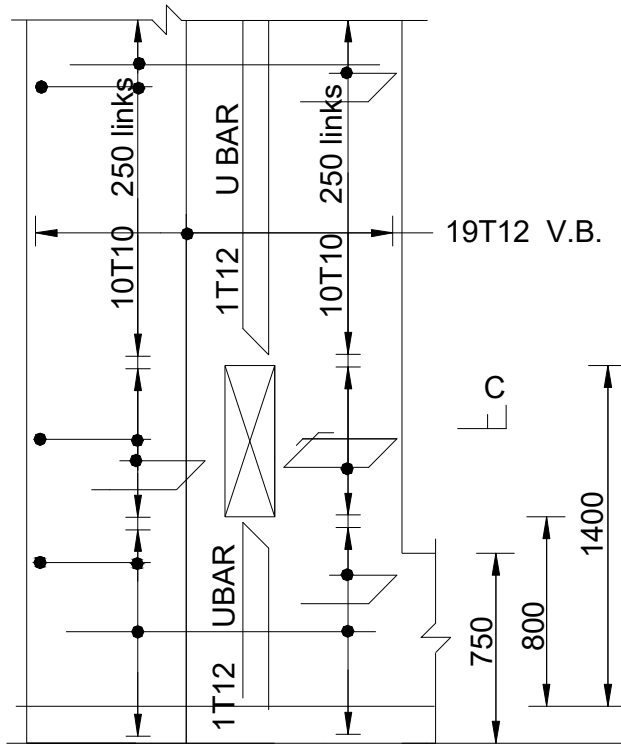


B2 (250x750) INV.530



Not to scale
All dimensions are in mm

2. Fixing of W1 & W2 Wall

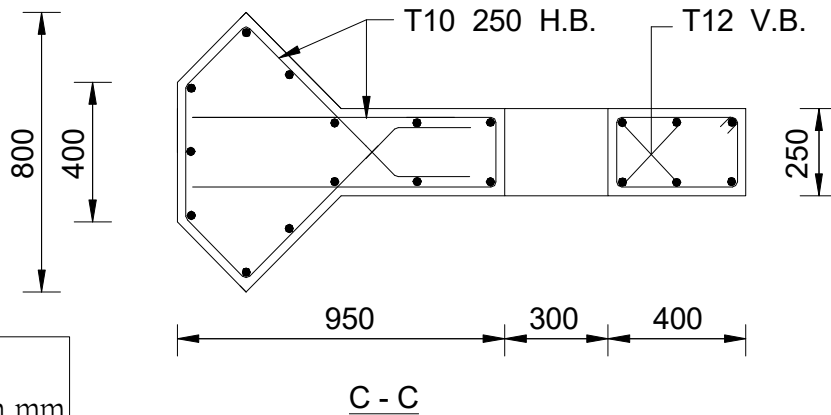
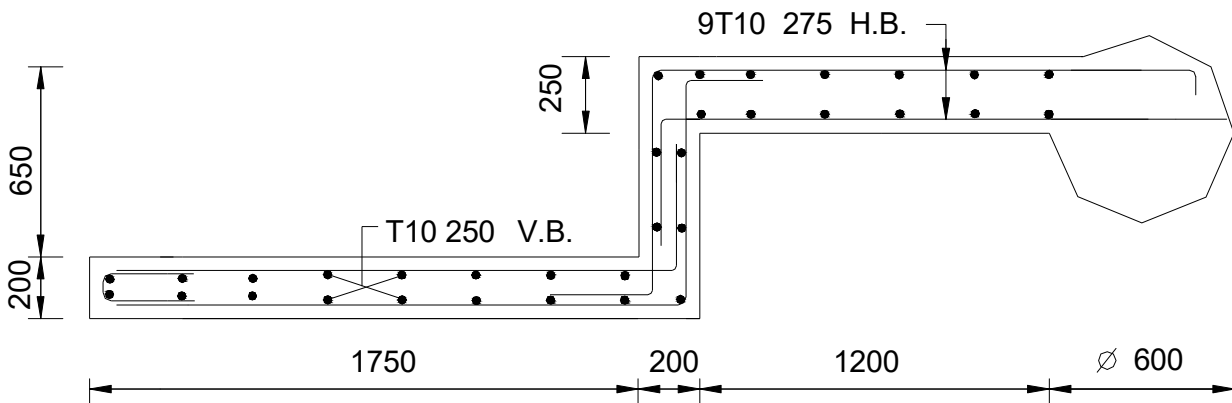


Wall Opening Trimming Bar

Wall Thickness (mm)	Trimming Bar
Under 200	8T12
200 to 300	8T16

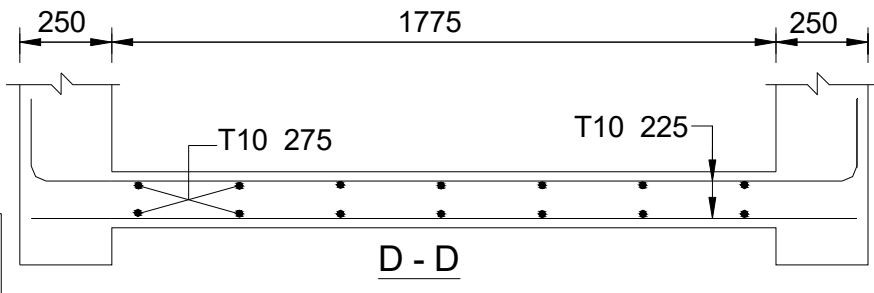
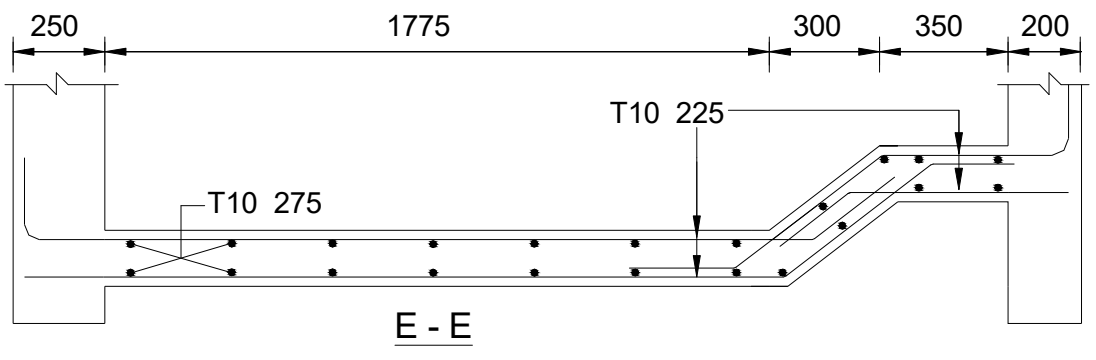
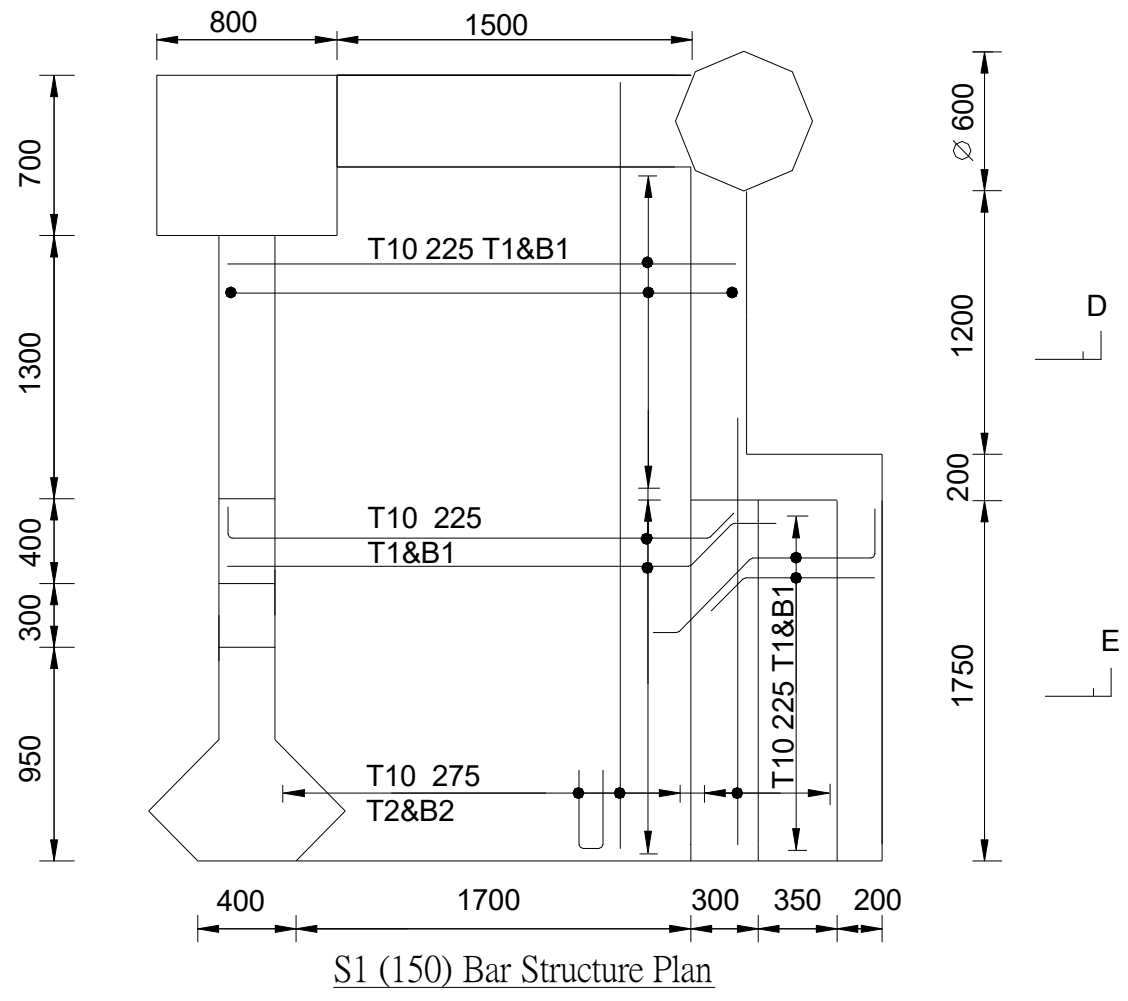
50 cover

W 1 Bar Structure Elevation



Not to scale
All dimensions are in mm

2. Fixing of S1 Slab



Not to scale
All dimensions are in mm

Notes to Candidates :

1. Candidates should read the test papers carefully and ask the invigilator for any queries.
2. Candidates should study the drawings and specifications attached to test papers, if any, before the test begins.
3. Candidates should carry out the test according to test papers, working drawings and specifications provided.
4. Candidates shall bring their own safety shoes, other safety equipment will be provided by trade testing centre. Candidates must take all necessary safety precautions to ensure work safety.
5. All tools and materials required by the test will be provided by trade testing centre, candidates should check and ensure their adequacy and quality. Candidates shall use the tools and materials properly based on trade practice. All the tools must be returned to trade testing centre after the test. The candidates may ask the invigilator for any problems.
6. Candidates are required to handle and move the tools and materials for use in the test, and to carry out associated works.
7. Invigilator will take record photos periodically during the test.
8. Candidates are not allowed to take any photo or video with cameras or mobile phones.
9. Candidates are not allowed to use their mobile phones during the trade tests, except for emergency situation.
10. The marking scheme is based on the following criteria :
 - a) Understanding of drawing and specification

- b) Preparation works before commencement of test
- c) Working procedures
- d) Accuracy and quality of works
- e) Progress of works
- f) Proper handling and use of materials
- g) Proper use of tools and equipment
- h) Safety precautions
- i) Considerate of other trades
- h) Housekeeping after completion of test

11. All candidates must stop when time is up.
12. Candidates are required to return the test paper to invigilator after the test.
13. Offering bribe to invigilator is an offence in law and trade testing centre will report to the ICAC for any such case.

In the event that the candidate fails to take any necessary safety precautions and / or works in any dangerous situations, he / she will be assessed failed