

第一轮笔试题



第一部分：68道单选题

题库抽题，练习要以我们的在线题库为主

1. Who does a re-establishment survey to a building site? Land surveyor
2. Which Australian Standard must smoke detectors comply with? AS3786
3. To find the maximum riser height for stairs to a domestic residence, what would you refer to? National Construction Code Volume 2
4. Who determines the need for protection works of an adjoining property? The building surveyor
5. What is the maximum distance between downpipes for a class 1 building? 12m
6. What is the minimum percentage of floor area required for ventilation in a sanitary compartment? 5%
7. Who is responsible for issuing a building direction? Building Surveyor or Building Inspector
8. Is a building permit required for an above ground swimming pool 1.2 meters in height? Yes
9. Who can appoint a Building Surveyor for the purpose of issuing a building permit? The owner
10. Within a residence a window of more than 1.2 meter squared requires safety glass if located below 500mm above the finished floor level? True
11. Which forms relate to Protection Works of an adjoining property? Form 6,7,8,9
12. Is a building permit required for a swimming pool barrier? Yes
13. Which of the following is a class 10 building? A garage
14. How must smoke detectors in a new residence be installed? All the answers that are listed(Connected to the consumer mains, installed near bedrooms, be installed on both floors of a two-storey residence)

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15. The Domestic Building Contracts Act states that the Builder must obtain foundation data prior to entering into a major domestic building contract. True
16. In a building dispute, which body would you refer the dispute to as a matter of last resort to resolve the dispute? Refer that matter to a Domestic Building Dispute Resolution Victoria
17. What are Liquidated damages against the building? A bonus to the client for the builder being late
18. You have completed building a metal roof pergola to the value of \$16,600, what do you hand over to the client on completion? Plumbing compliance, domestic building insurance, final building certificate and a final invoice
19. What is the maximum deposit for a contract worth \$85,000? \$4,250
20. When calculating a variation, what would you have to allow for in your calculations? Both of the above(additional time, additional cost for labour and materials)
21. When does Domestic Builders Insurance(previously known as Home Owners` Warranty insurance) have to be purchase? When domestic building works is above \$16,000
22. The soil report shows the possibility of rock for your building site. You have not included rock removal in your specification or in the contract, can you request a variation?
No
23. What is a Provisional Sum? An allowance for labour and materials
24. What is a prime cost item? Fixtures and fitting
25. You are to build a pergola which you have quoted \$16,200. What deposit amount can you claim? 10%

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26. What is the liability period for structural defects to building work covered by Domestic Building Insurance? 6 years from date of handover
27. What is gross income? All income before tax
28. What turnover does a business need to achieve before being required to register for GST? \$75,000
29. Who prepares a balance sheet? Accountant
30. What is working capital? Cash in the bank
31. What is an asset? Mortgage
32. What should your budget reflect? Materials, labour overheads and profit
33. When there is no agreed timeframe, what is the maximum period of time you can hold a subcontractors invoice under the Security of Payments Act? 10days
34. The owner has requested a variation to install electric heating cables to be embedded into the slab. Who should you contact before preparing your quote for the variation?
Engineer(Building Surveyor?Draft person?Concreter?)
35. What is a sub-contractor agreement? A written agreement between the builder and sub-contractor that specifies work conditions, charge rates and outlines work
36. Who is covered by the Security of Payments Act? Trades and suppliers
37. Who is responsible for an OHS safety coordination plan on a domestic building site? The builder
38. One of your subcontractors gets an electric shock on your site and has to go to hospital. Who must you inform and when? Work Safe - Immediately
39. What should you do if you are going to get storm water runoff from your building site? Provide correct storm water drain protection

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40. Before allowing any subcontractor onto your site, what must you inspect? The subcontractors Construction Induction Card(White card)
41. What is the maximum height you can work without fall protection? 2.0m
42. Up to what height can a competent unlicensed person erect a scaffold around a domestic residence being constructed? 4 Metres
43. Galvanised metal bracing should be installed between the following angles? 30-60 degrees
44. What is the required height for a swimming pool barrier/fence? 1200mm
45. What is the minimum width of a vertical masonry articulation joint? 10mm
46. What size would the verandah posts be if they were 2400mm high and the rafter span was 6000mm distance between posts were 2700mm tiled roof F5 seasoned softwood? 90*90
47. What is the required clearance between the top of a window and the lintel or lintel trimmer? 15mm
48. What is the maximum span for a 240*45 mgp10 hanging beam ceiling joint span 2400mm? 4800mm
49. What must the clear gap between any vertical member in a safety fence not exceed? 100mm
50. When windows are placed in a wall that have no eaves, where would flashing to the window be installed? Both head and sill of window
51. Where possible, sheet flooring ends should be staggered? True
52. Nominate the size of the top plate not trenched, for the following: 100mm frame, single storey, load bearing wall, Stud spacing 450mm, Truss Span 6000mm, sheet roof, F8 Unseasoned timber. 50*100

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53. Which Australian Standard provides information on the construction of timber wall frames? AS1684

54. In a concrete slab with Soil Classification “H” and the cladding is to be Articulated Masonry Veneer. Where would be the location of the slab mesh be placed in the slab?

Top

55. How far should the hearth in front of a solid fuel heating appliance extend by? 400mm

56. What is the standard thickness of a typical solid brick(double brick) wall? 230mm

57. What is the minimum clearance to the underside of a bearer in a non-termite area? 150mm

58. Nominate the size of bottom plates not trenched, for the following: 90mm wall frame, single storey, Floor joist spacing 600mm, Truss Span 8600mm. tile roof, MGP10

Seasoned timber. 3/90*45

59. What is a jack stud? A short stud below or above a window/door opening

60. Nominate the bearer size required for the following: Bearers supporting floorboards on(40kg/m²), Bearer span 1800mm, Bearer spacing 2100mm. F5 Seasoned Timber.

2/140*35

61. What size underpurlin would be required if it was stress graded to F17, timber lengths are 5400mm, rafter span was 3000mm and struts are spaced at 1800mm on a tiled

roof? 2/90*35

62. What is the minimum kPa of the founding soil required to be for a strip footing? 100kPa

63. What is the minimum overlap for baltic pine weather boards? 25mm

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64. What is the minimum pitch of a roof when using corrugated iron(Custom orb)? 5 degrees
65. In stair construction, what is the maximum number of risers permitted to a single flight? 18
66. Is a swimming pool barrier/fence required for an above ground pool? Yes
67. Which of the following could be used as normal bracing? All the answers that are listed(Plaster board internal lining, Cement sheet internal lining, Decorative internal lining)
68. (25年5月更新) Which Australian Standard is relating to electricity? AS3959(Bushfire Area) AS3660(Termite Protection)AS1100(Technical Drawing)AS3000(Wiring Rules)
69. (25年5月更新) Which is the minimum percentage of floor area natural light by means of windows in class 1 building? 10%
70. (25年5月更新) Better energy rating, what is typical absorption value of zinc aluminum roof sheet? 0.55 NCC 3.12.1.2
71. (25年5月更新) Concrete slab, H soil, articulated masonry veneer, what is the min. coverage to trench mesh of garage slab without vapour barrier? 40
72. (25年5月更新) What is the maximum nail spacing of ribbon plate? 600mm AS1684.4 Table 9.3
73. (25年5月更新) What support wall bracing provide? Lateral(horizontal racking forces) AS1684 Clause 8.3.2.1
74. (25年5月更新) How high chimney must be above the ridge height if it is 3000mm from the ridge? 300mm NCC 12.4.3 Figure 12.4.3
75. (25年5月更新) What is the minimum ceiling height of a laundry? 2100mm NCC 3.8.2

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第二部分：26道问答题，8道作图题，全部要写出处（可多处引用），画图软件很不方便，打字很浪费时间

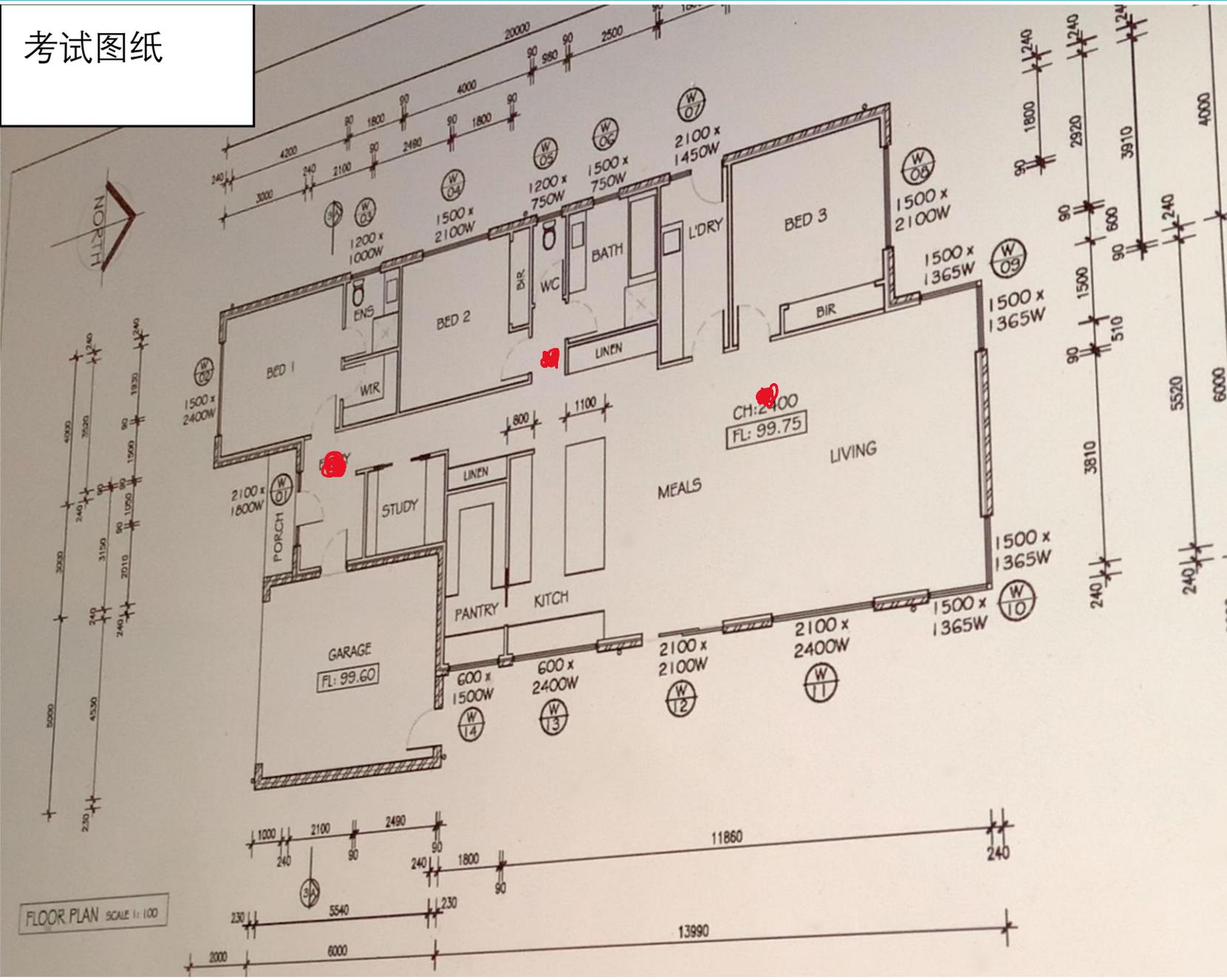
题目介绍：The purpose of this plan based exercise is to test the applicant's ability to correctly apply their knowledge of building codes/standards and standard building practices, to a typical domestic construction scenario; specifically:

- roof frame construction
- timber frame construction
- concrete footings and slab floors
- plan reading/interpretation

To be considered as competent the applicant is to achieve a score of 54 out of a possible 77 marks = 70% for this exercise.

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考试图纸



Specifications:

- Concrete tile roof with 450mm eaves, roof truss at 600mm centres - 17 degree roof pitch
- Articulated brick veneer construction, assume consistent 40mm brick cavity width
- Assume articulated full masonry to garage, assume similar to front porch
- Conventional raft slab on ground to residence and garage
- 90mm wall frames throughout, wall height 2400mm, studs at 450mm centres - NOT notched. Bottom and Top plates - NOT trenched
- Wind classification: 'N2'
- Soil Classification Class M

Q1 The floor plan depicts a typical single storey dwelling. Assuming the use of quad gutter fixed to timber fascia boards;

What is the minimum fall that the gutter must be installed at?

Answer: 1:500

Ref: NCC 7.4.4(a)

Q2 What is the maximum spacing for gutter brackets?

Answer: 1200mm

Ref: NCC 7.4.4(b)

Q3 Mark location of smoke detector

Ref: NCC 9.5.2(a) (b)

Q4 Are smoke alarms required to be connected to mains power and interconnected (connected) to one another?

Choose Yes or No: yes

Ref: NCC Figure 9.5.2b

Q5 For walls with openings greater than 900mm, what is the maximum distance between the vertical articulation joints in the brickwork for the proposed dwelling?

Answer: 5m

Ref: AS 4773.2:2015, Section 7.2(c),

NCC 5.6.8 (2) (b)

Q6 What is the maximum spacing of wall ties in both directions (horizontally and vertically)?

Answer: in all cases, the maximum vertical and horizontal spacing shall not exceed 600mm.

Ref: AS 4773.2:2015, Section 9.7

Q7 What is the maximum spacing for weepholes in a brick veneer wall?

Answer: 1200mm

Ref: AS 4773.2:2015, Section 9.6.2.1

NCC Part 5.7.5 (1) (b)

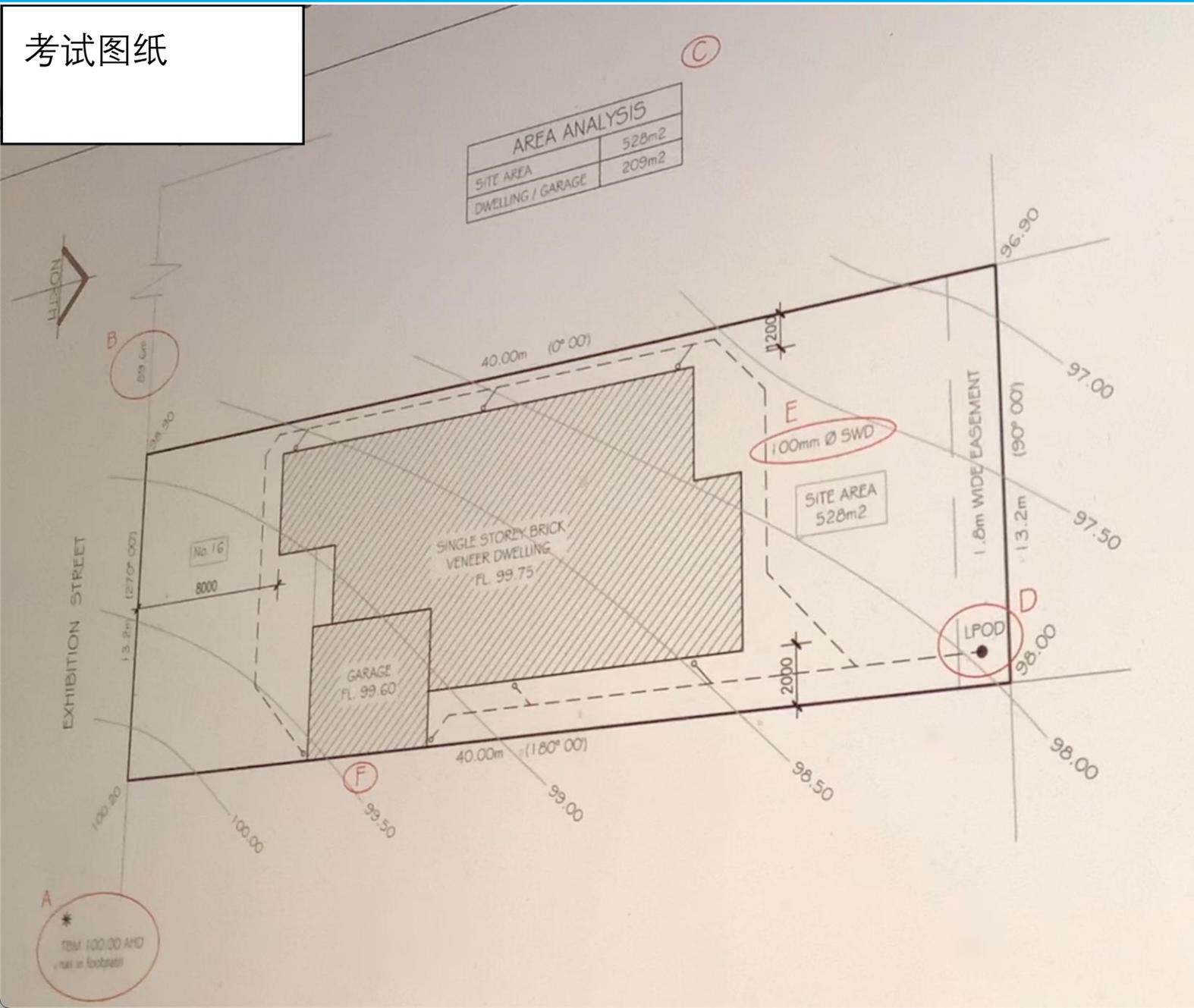
Q8 What is the minimum end bearing for brick lintels when openings are greater than 1m/900mm?

Answer: 150mm

Ref: AS 4773.2:2015, Section 8, Table 8.3/NCC 5.6.7 Figure 5.6.7

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考试图纸



Q9 Detail A: What do the letters TBM stand for?

Answer: temporary bench mark

Q10 Detail B: What does the number 89.6 reflect?

Answer: the distance to the next street cross.

Q11 Detail C: Using the numbers from the given table, calculate the site coverage of building to site area as a percentage.

Answer: 39.58%

Q12 Detail D: What do the letters LPOD stand for?

Answer: legal point of discharge

Q13 Detail E: What does the number 100mm mean?

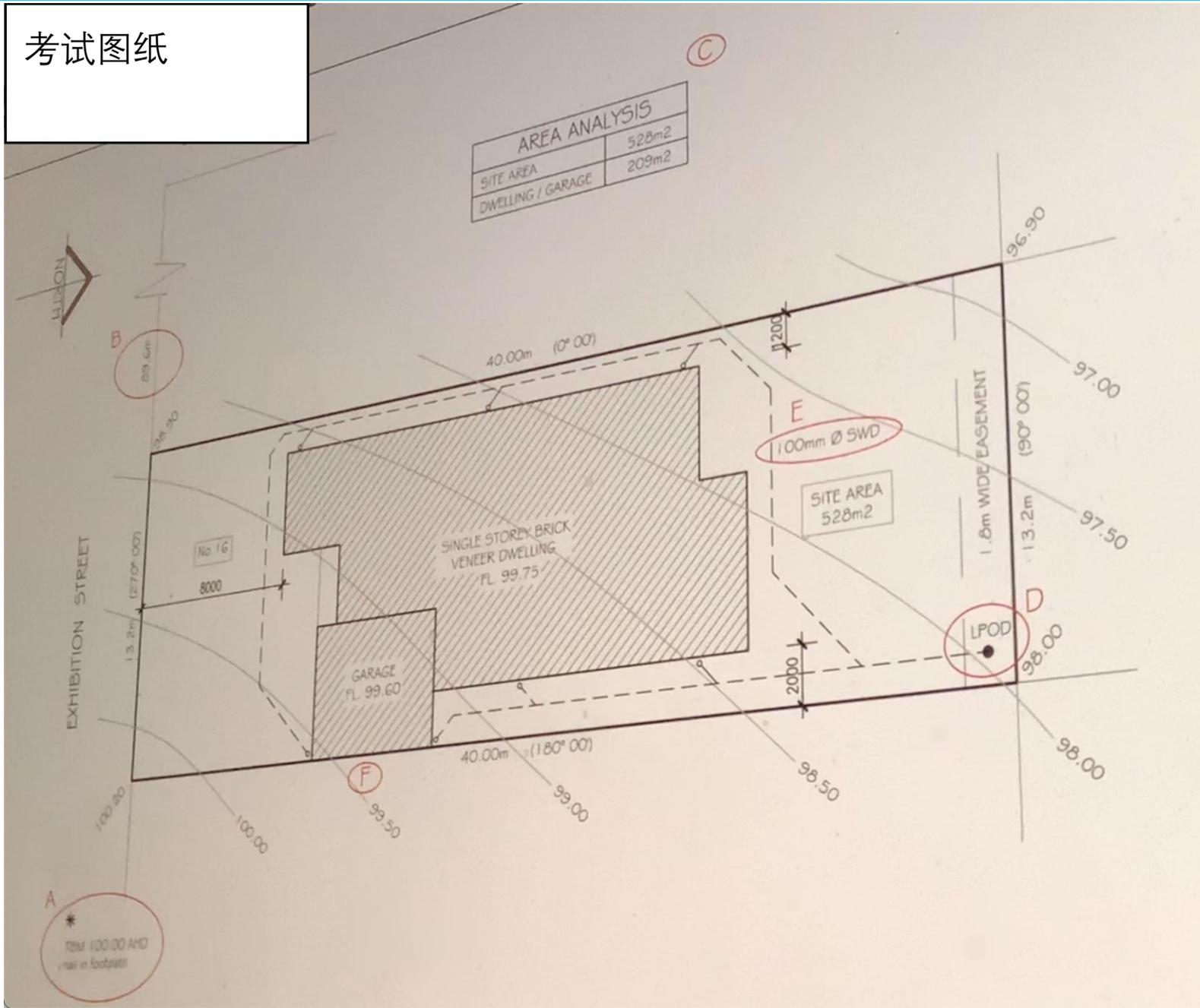
Answer: sewerage pipe size: diameter 100mm

Q14 What is the height difference between the dwelling floor level and the garage floor level? Answer to be in millimetres.

Answer: $99.75 - 99.6 = 150\text{mm}$

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考试图纸



Q15 What is the height difference between the garage floor level and TBM? Answer to be in millimetres.

Answer: $100 - 99.6 = 400\text{mm}$

Q16 What is the FRL(fire rating level) for the garage wall on the allotment boundary?

Answer: 60/60/60

Ref: NCC Part 9.4.1 (2) (i)

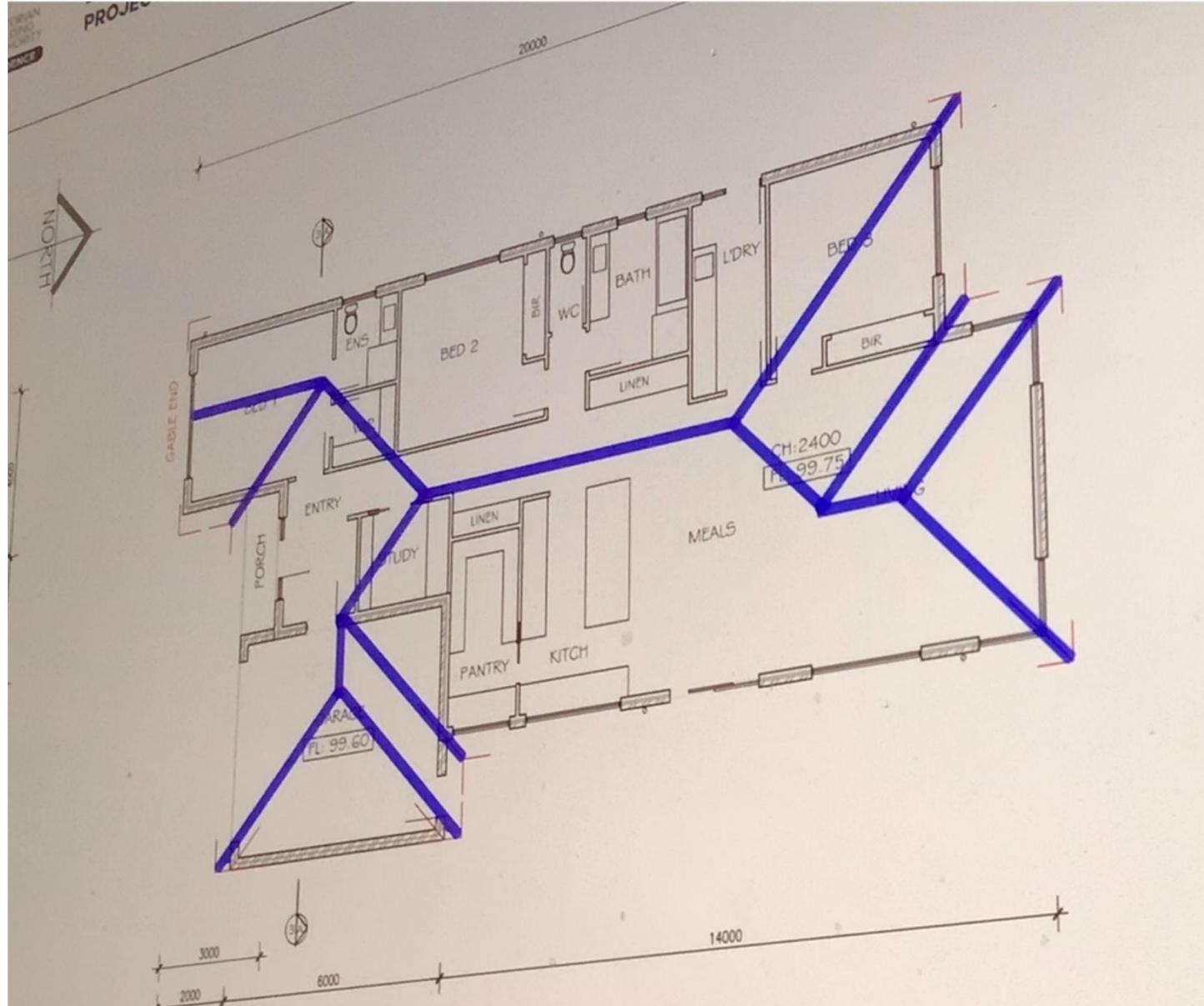
Q17 What is the minimum distance between the arch of the door and the front of the toilet pan before lift off hinges are required.

Answer: 1200mm

Ref: NCC Part 10.4.2

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Q18 Draw roof line (15 marks)



Q19 Is sarking required?

Choose Yes or No: no, as the roof pitch is less than 18 degree.

Ref: NCC Part 7.3.4, Table 7.3.4

Q20 Calculate Lintel(F17) and Jamb Stud(MGP10) size for W5 W6 W7 W12 W13 W14 (13 marks)

Answer: W5: F17 Lintel: 90*35mm, MGP 10 Jamb Stud: 90*35mm
W6: : F17 Lintel: 90*35mm, MGP 10 Jamb Stud: 90*35mm
W7: F17 Lintel: 2/120*45mm, MGP 10 Jamb Stud: 90*45mm
W12: F17 Lintel: 2/170*45mm, MGP 10 Jamb Stud: 2/90*35mm
W13: F17 Lintel: 2/190*45mm, MGP 10 Jamb Stud: 2/90*35mm
W14: F17 Lintel: 2/120*45mm, MGP 10 Jamb Stud: 90*45mm

Ref: AS 1684, Table A24 Lintel- Tile roof
AS 1684, Table A16 Jamb Studs-Tile roof

Q21 What is the maximum spacing between internal beam?

Answer: 6000mm

Ref: AS 2870 Figure 3.6

Q22 Size and position of trench mesh

Answer: 3 L11TM, top and bottom

Ref: NCC 4.2.15, Table 4.2.15c ,

Q23 Size of slab mesh

Answer: SL 72

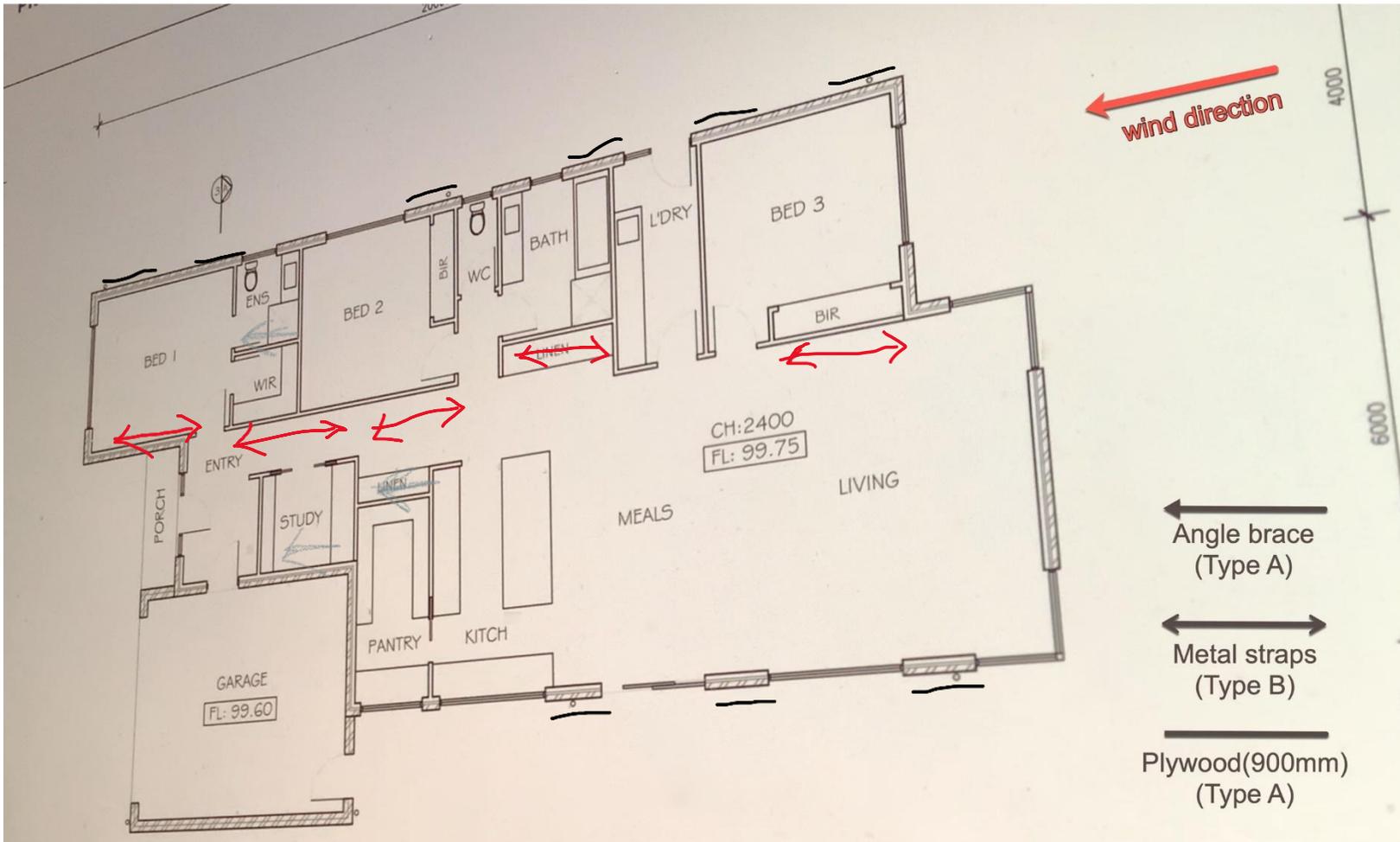
Ref: NCC 4.2.14, Table 4.2.14c

Q24 What is the minimum length of reinforcement for re-entrant corners?

Answer: 2000mm

Ref: NCC Part 4.2.11, Figure 4.2.11b

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Q25 (4 marks)

House elevation option: S3

Ref: AS 1684.8.3.2.2, Figure 8.3

Number of bracing: 22

Ref: AS 16848.3.2.2, Table 8.2

Q26 Draw bracing (11 marks)

Type A: Angel brace: 3

Type B: Metal straps: $5 \times 2 = 10$

Type A: Plywood(900mm): 9

Total: 22