

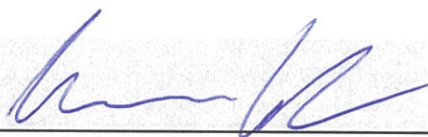
CPCBC4012B READ AND INTERPRET PLANS AND SPECIFICATIONS

THEORY EXAM INSTRUCTIONS

- This exam will occur under standard assessment conditions.
 - An oral examination may be allowed under certain circumstances. Answers will be documented and FT003 (Oral examination declaration form) must be completed.
- Participants must provide enough detail in their responses to demonstrate their knowledge and skills.
- Please fill in the details below, providing your name, signature and date of assessment.
 - Your signature acknowledges that this is your own work.
- If a participant initially answers a question incorrectly but modifies their response, they must follow the instructions below:
 - If a participant changes their response in writing, they must put their initials next to the written change.
 - If a participant changes their response verbally, this must be noted on the exam paper by the assessor.

Participant name Massimiliano Carante

Participant signature



Assessor name

Assessor signature

Date 19/03/2019

Number of questions	Number of questions answered correctly	Satisfactory?	
		Yes	No
87		☐	☐

Q1. Plans and specifications are used to inform which of the following processes? Tick all that apply.

Answer

Choice	Possible Answers
☒	Building contracts
☒	Development applications
☒	Estimation
☒	Planning
☒	Supervisory tasks
☒	Tenders

☐

Q2. Which compass direction is always shown on plans and drawings?

Answer North

☐

Q3. What information is provided on a location plan?

Answer Shows a site on a particular street

☐

Q4. What detail does a site or block plan contain?

Answer is usually drawn at 1:500 and gives the following information: A datum - reference height to other site level Building location and orientation to north point

☐

Q5. What do floor plans identify?

Answer Detail of proposed structure, such as rooms, positions of fixtures, floor coverings.

☐

Q6. What is a landscape plan and what information might it provide?

Answer A 2D view of the building from above. It may contain contours, slope direction, details of plants, paths, garden layouts and retaining walls

☐

Q7. What are elevation views? What do they provide to the plan reader?

Answer A side view of the building, usually shown from 4 sides (North, South, East, West)

☐

Q8. What is a section?

Answer A side view of the building that has been cut-through, to show details that are not visible from the elevation view.

☐

Q9. What are detailed drawings?

Answer Drawing of specific item or location, giving further details not shown on the general arrangement drawing.

☐

Q10. What are specifications?

Answer Written details and requirements that accompany the drawings. They contain details such as: colour, materials, installation standards,

☐

Q11. Explain the meaning of the abbreviations in the table below.

Answer

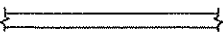
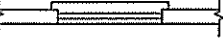
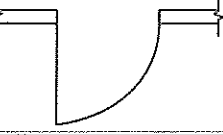
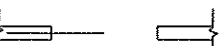
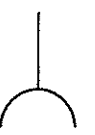
Abbreviation	Meaning
ACRYL	Acrylic
AS	Australian Standard
ASSD	Assumed Datum
B	Basin
BN	Bull Nose
BTH	Bathroom
BWK	Brickwork
CB	Concrete Block
CF	Concrete Floor
CG	Clear Glass
CJ	Ceiling Joist
CORR	Corrugated
CWT	Cold Water Tank
DG	Double Glazing
DH	Double Hung
DPC	Damp Proof Course
DSB	Distribution Switch Board
DW	Dishwasher
EJ	Expansion Joint
FPBD	Fibrous Plaster Board
FFL	Finished floor level
FHR	Fire hose reel
GPO	General Purpose Outlet
HBD	Hardboard
HTR	Hot Water Unit
HWD	Hardwood



Q12. Name each of the drawing symbol images shown in the table below.

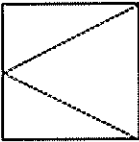
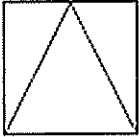
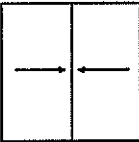
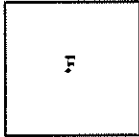
Answer



Name	Image
Cavity brick	
Brick and stud wall	
Stud wall	
Window (internal sill)	
Window (sill external)	
Door – swing angle	
Door – sliding into pocket	
Door - sliding exposed on wall	
Socket outlet - power	
	

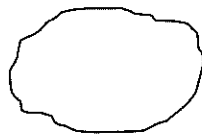
Q13. Identify what the following window symbols represent on elevations.

Answer

Item	Drawing
Hinged at side	
Hinged at top	
Sliding horizontal doors	
Fixed	



Q14. What does a clouded area on a plan indicate?



Answer

Indication of change detail – to draw the reader to changes since last drawing revision.



Q15. An amendment to specifications could relate to which of the following?
Tick all that apply.

Answer

Choice	Possible Answers
☐	Contact details of all construction crew members
☒	Materials or products used
☒	Methods of carrying out specified work



Refer to the title block below to respond to Q16. to Q18.

Site address: LOT 437, SOUTH ST. MARYVILLE WA	
Client: JM & KL JOHNSON	
Project # 2012/15	Project name: JOHNSON RESIDENCE
Builder: HOTSHOT HOMES	
Drawn by: MW	Date: July 2011
AMENDMENTS: 5/10/2011 Window added to study 8/11/2011 Bed 3 robe deleted	
Title: FLOOR PLAN	Scale: 1:100
Drawing # 3 OF 7	

Source: http://www.dtwd.wa.gov.au/sites/default/files/teachingproducts/BC1934_CCBY.PDF

Q16. On what date was an amendment made to the window details?

Answer 05/10/2011

☐

Q17. True or False (Tick your response): Details of the window in Q16. should also be reflected in the specifications and confirmed with the client.

Answer

☒	True
☐	False

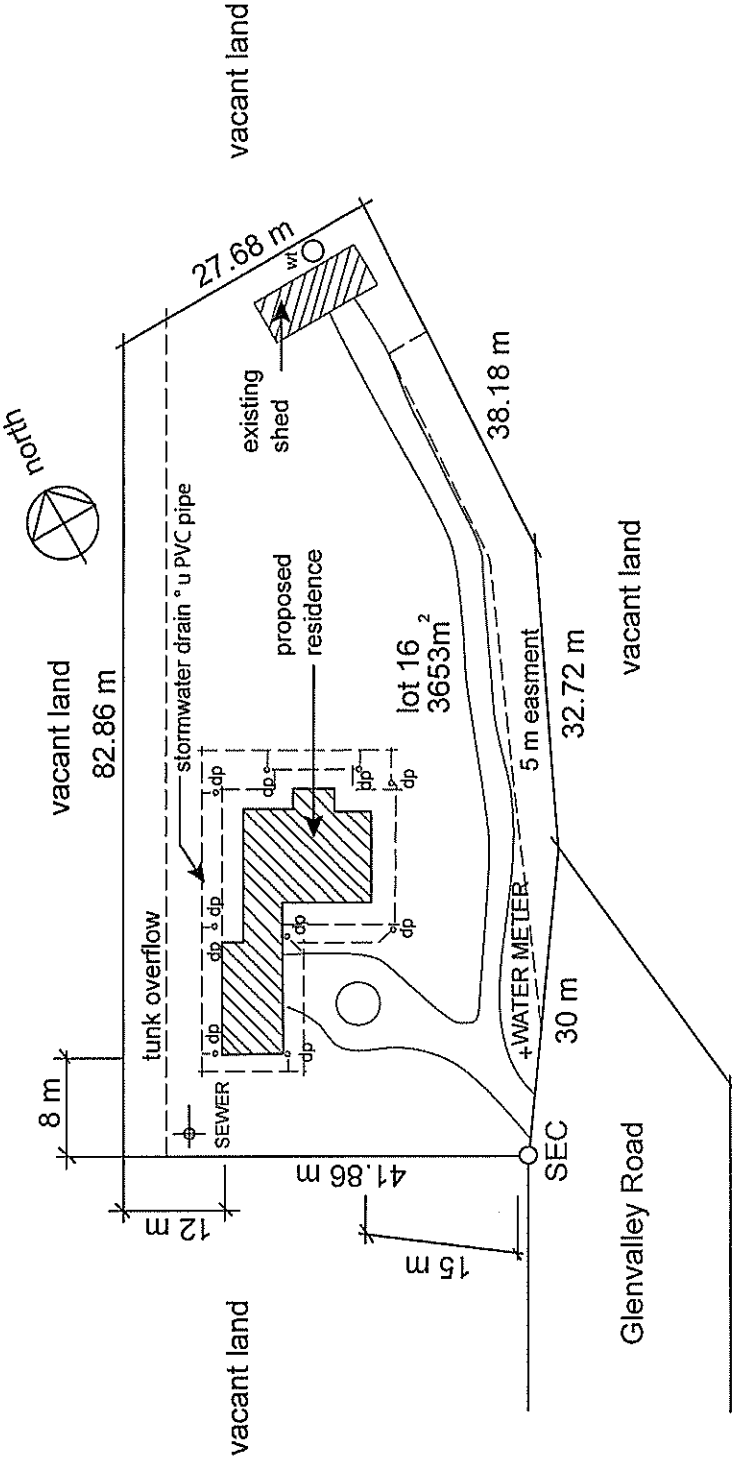
☐

Q18. What amendment occurred on 08/11/2011?

Answer Bedroom 3 wardrobe deleted

☐

Refer to the site plan below to respond to Q19. to Q26.



Site Plan 2

Clients : H&M Smith Lot 16 Glenvalley Road Richmond	North	drawn : DJA date : 11/10/07 scale : 1 : 500 drg no : WD 9733 sheet 6 of 7	REVISIONS		Joe Foreman Ph: 03 9514 2311 Mob: 0413 113 113 18 Fairview Road, Richmond 3216
			NO	DATE	BY

Q19. What structure is being built on this site? Tick your response.

Choice	Possible Answers
☒	Residence
☐	Road
☐	Shed
☐	Water meter

Q20. What is the Lot number of this site?

Answer	16
--------	----

Q21. What is the size of this lot?

Answer	3653m2
--------	--------

Q22. Is the shed at the north-east of the proposed structure to be removed or retained? Tick your response.

Choice	Possible Answers
☐	Removed
☒	Retained

Q23. True or False (Tick your response): The sewer is at the eastern boundary of the property.

Answer	☐ True
	☒ False

Q24. True or False (Tick your response): The driveway is located to the south of the proposed property.

Answer	☒ True
	☐ False

Q25. What size is the easement on the eastern boundary of the site?

Answer 5m

☐

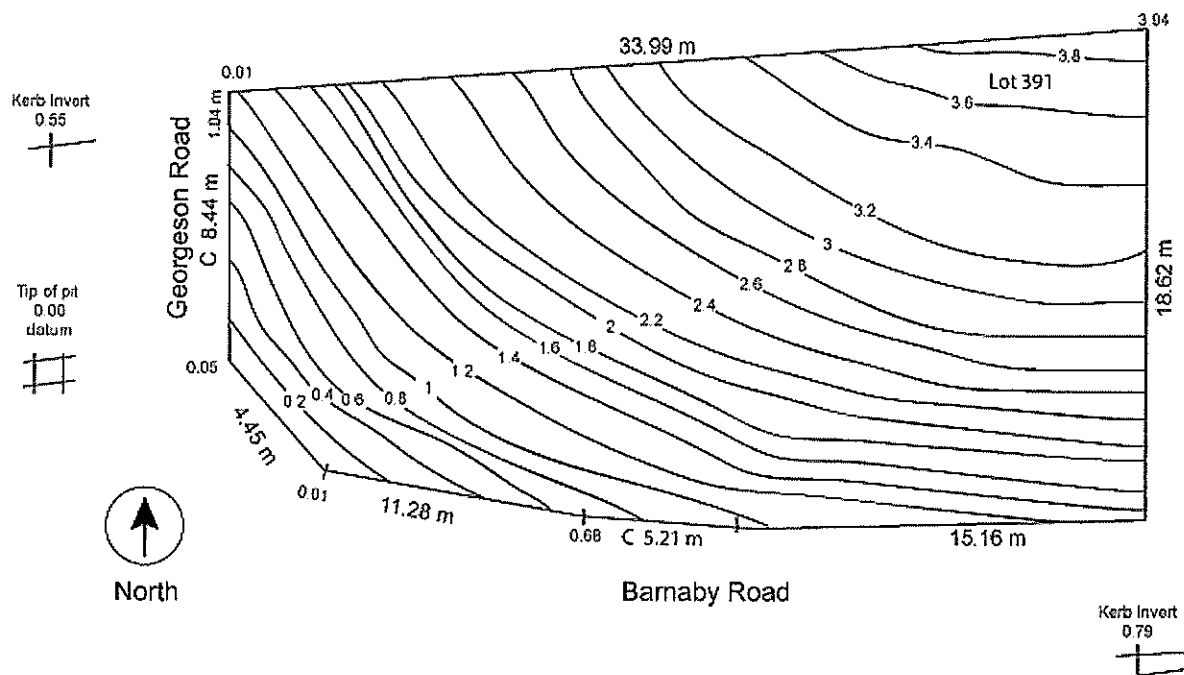
Q26. True or False (Tick your response): The stormwater drain is constructed from PVC pipe.

Answer

☒	True
☐	False

☐

Refer to the contour plan below to respond to Q27. to Q28.



Q27. What is the level at the northernmost point of the site?

Answer 3.94

☐

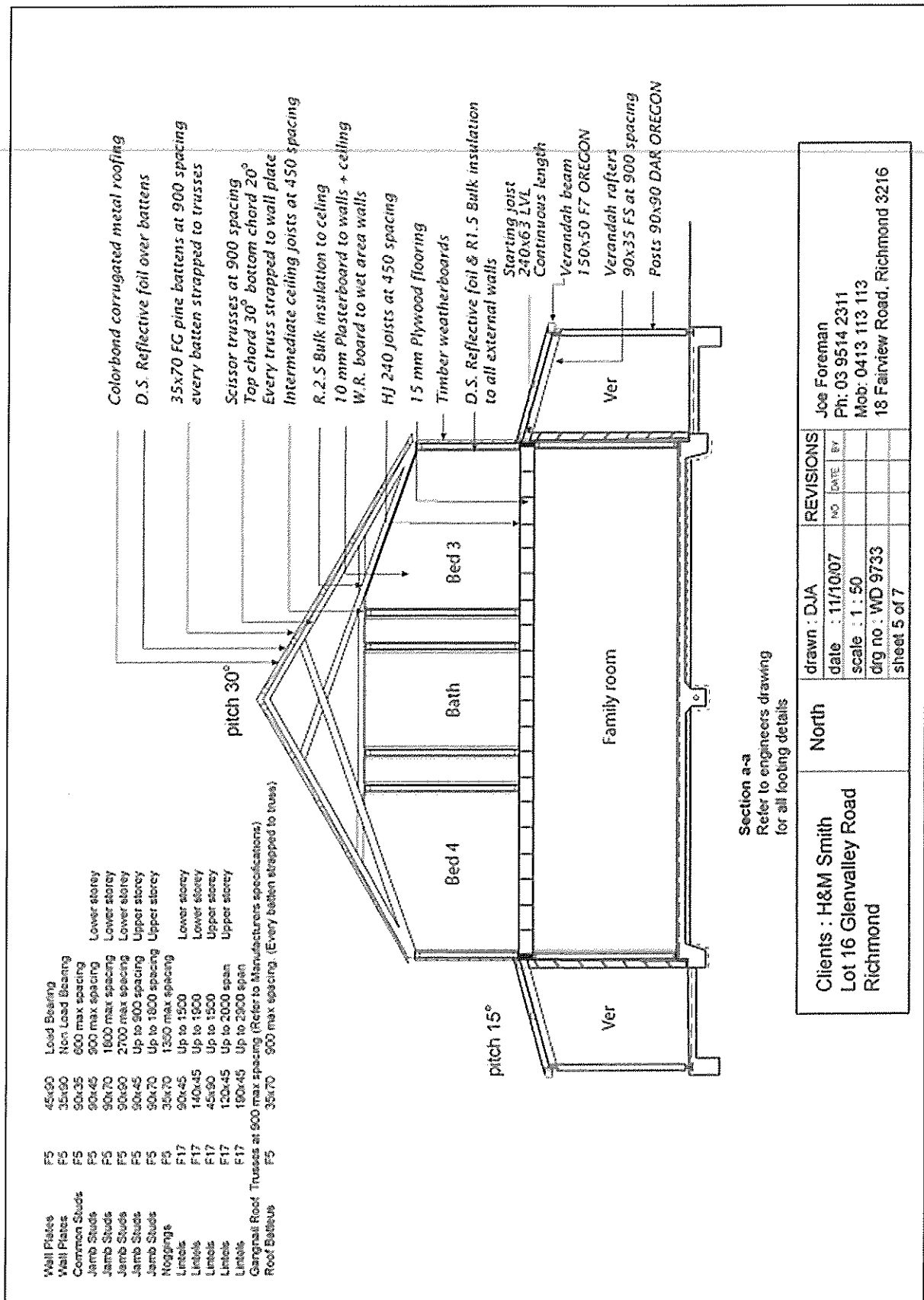
Q28. Which end of the site has the lowest level? Tick your response.

Answer

Choice	Possible Answers
☐	East
☒	West

☐

Refer to the sectional drawing below to respond to Q29. to Q49.



Q29. Give a brief description about the building from the detail available in the sectional drawing. Is it the same structure proposed in Q19. to Q26. ?

Answer Yes this is the same structure.

It is a 2-storey residential, stand alone building. This cross sectional drawing shows family room, bathroom and 2 bedrooms, pitch of roof.

☐

Q30. Who is the client?

Answer H&M Smith

☐

Q31. Where is this project to be built?

Answer Lot 16 Glenvalley Rd, Richmond

☐

Q32. What are the contact details for the draftsman?

Answer Draftsman is DJA

Contact details will have to be Joe Foreman, ph: 03 9514 2311

☐

Q33. What sheet number is this drawing?

Answer Lot 16

☐

Q34. What timber is required for loading and non-load bearing walls?

Answer Loading: Pine battens, LVL joists, Plywood flooring. Non-Loading: Weatherboard cladding

☐

Q35. What spacing is recommended for common studs?

Answer ☐

Q36. What type of roof truss is to be installed?

Answer ☐

Q37. What centres are the trusses positioned at?

Answer ☐

Q38. What size are the veranda posts?

Answer ☐

Q39. What timber species are the veranda posts to come from?

Answer ☐

Q40. What pitch is the roof?

Answer ☐

Q41. What size are the noggings and at what spacing?

Answer ☐

Q42. What size are the ceiling joists?

Answer ☐

Q43. What timber is used for roof battens and what spacing?

Answer Pine battens at 900mm spacing

☐

Q44. What thickness is the plasterboard sheeting?

Answer 10mm

☐

Q45. What type of flooring is to be installed?

Answer Not specified

☐

Q46. What is the roof cladding material?

Answer Colorbond corrugated metal roofing

☐

Q47. Where will you find information about the footings?

Answer Foundation / Excavation Drawings

☐

Q48. What do the letters 'DAR' refer when timber ordering?

Answer Dressed all round.

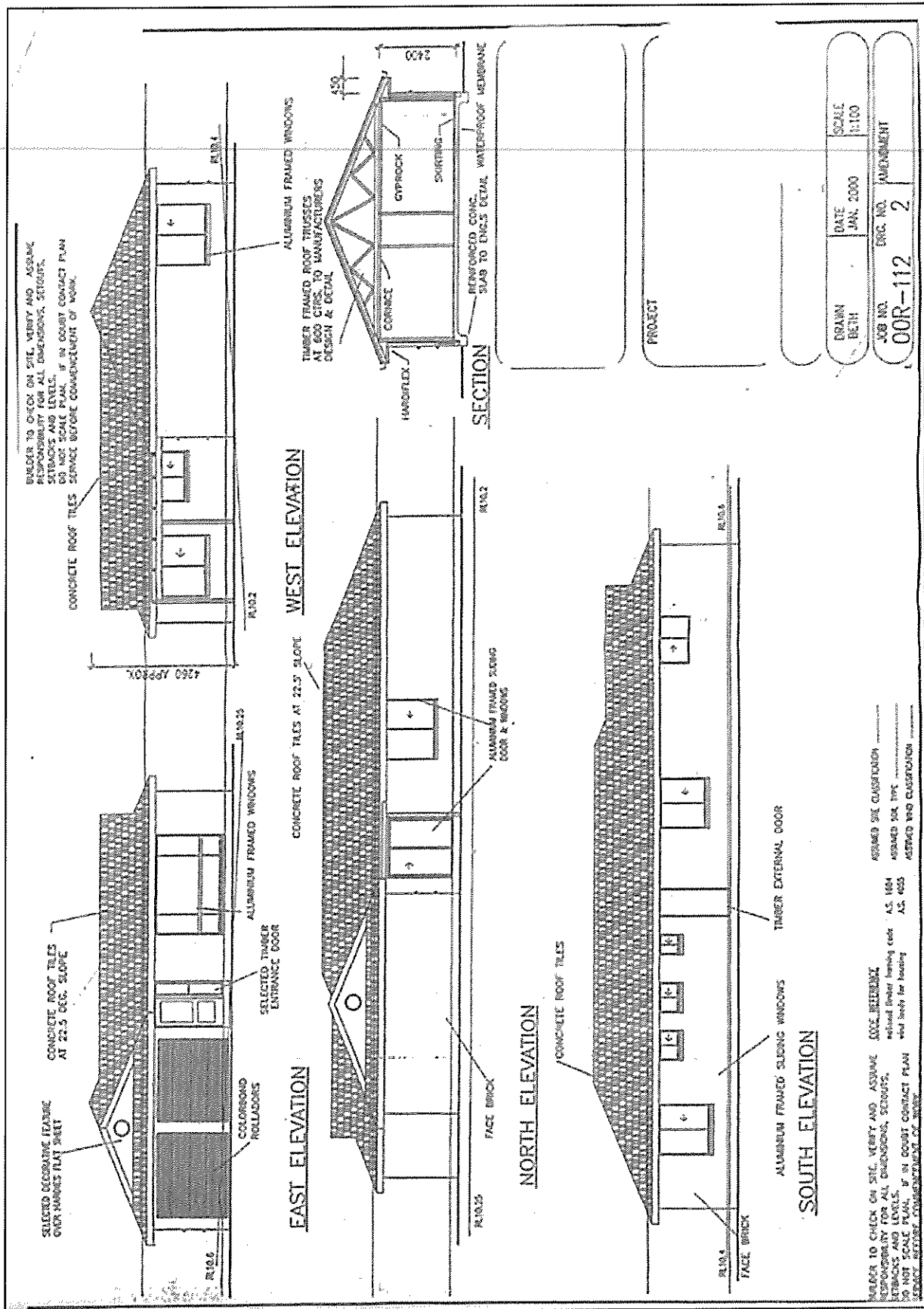
☐

Q49. Explain what '240 x 63 LVL' refers to on the sectional drawing. What do the letters 'LVL' refer to?

Answer 240mm depth by 63 mm thick, laminated veneer lumber.

☐

Refer to the drawing below to respond to Q50. to Q65.



Q50. What is the number of the drawing?

Answer ☐

Q51. What is the Job Number?

Answer ☐

Q52. What is the scale of the drawing?

Answer ☐

Q53. What does the drawing show?

Answer ☐

Q54. Which view shows the front of the house?

Answer ☐

Q55. How many motor vehicles can be parked in the garage?

Answer ☐

Q56. What are the window and doors made from?

Answer ☐

Q57. What is the size of the eaves?

Answer ☐

Q58. What are the eaves lined with?

Answer Gutters

☐

Q59. What type of roof structure is the roof built from?

Answer Timber framed roof trusses. Concrete tile cladding.

☐

Q60. Which Clause of the NCC should be read for more detail about roof structure in Q59. ?

Answer NCC Volume 2: Clause 3.11.6

☐

Q61. Which Australian Standard should be read for more detail about the roof structure in Q59. ?

Answer AS 1720

☐

Q62. What is the roof cladding materials made from?

Answer Concrete Tile

☐

Q63. Which Clause of the NCC should be read for more detail about the roof cladding materials in Q62. ?

Answer NCC Volume 2: Clause 3.5.1.0 and 3.5.1.2.

☐

Q64. Which Australian Standard should be read for more detail about the roof cladding materials in Q62. ?

Answer AS 2049

☐

Q65. What is the roof pitch?

Answer 22.5 degrees

☐

Q66. Identify one (1) regulatory body you may need to submit plans to for approval?

Answer City Council



Q67. Briefly describe the approval process and timeframes for an approval through the regulatory body in Q66.

Answer



Q68. What is a prime cost (PC) item? Give an example.

Answer Prime cost – amount of money included in contract sum to purchase specific materials. The cost is estimated at contract signing, but the specific item is not selected until a later stage.

EG: Client selects a more expensive door (\$500) than the PC (\$400). The total contract amount is now increased to \$100

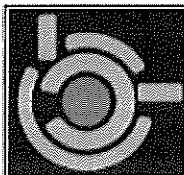


Q69. What is a provisional sum (PS) item? Give an example.

Answer An amount of money included in contract sum to cover work and/or materials not detailed when entering the contract.

EG: Underground items not known before excavation works begin. Therefore Provisional Sum made for unknown costs.



**Organized Builders Estimating Solutions****Bill Summary**

7 October 2011

Web2Stem Website Template 2 storey
Organized Builders
P.O. Box 5280 Frankston South 3199
0413 770 956

<u>Cost Centre</u>	<u>Amount</u>	
50 PLASTERER	\$12,900.00	3.6%
51 STAIRCASE & BALUSTRADE	\$7,000.00	1.9%
52 CABINET MAKER	\$22,000.00	6.1%
53 SINKS & BASINS	\$2,086.03	.6%
54 FIX MATERIALS	\$2,010.69	.6%
55 FIX CARPENTER	\$3,631.60	1.0%
56 INTERNAL TILE SUPPLY	\$6,100.00	1.7%
57 INTERNAL TILER	\$7,396.80	2.1%
58 PAINTER	\$16,075.90	4.5%
59 SHOWER SCREENS & MIRRORS	\$1,448.00	.4%
61 TOILET SUITES	\$1,500.00	.4%
05 - Fixing	\$82,151.02	23%
61A Completion Stage	\$0.00	.0%
62 KITCHEN APPLIANCES	\$2,700.00	.8%
63 HOT WATER SUPPLY	\$2,408.80	.7%
64 TAPWARE SUPPLY	\$2,745.00	.8%
67 GARAGE DOOR SUPPLY	\$1,437.84	.4%
68 HOUSE CLEANER	\$1,088.00	.3%
71 CARPET, VYNIL & FLOATING FLOORS	\$3,350.00	.9%
72 CLOTHES LINE & MAILBOX	\$700.00	.2%
73 WINDOW FURNISHINGS	\$5,000.00	1.4%
74 FENCING	\$4,665.50	1.3%
76 LANDSCAPING	\$12,000.00	3.3%
78 OFFICE FEES & COSTS	\$26,000.00	7.2%
06 - Completion	\$62,095.14	17%
Total	\$358,980.10	
Contingency Sum 1.0%	\$3,589.80	
Profit & Overheads 18.0%	\$65,262.58	
GST 10.0%	\$42,783.25	
Total	\$470,615.73	
Prices do NOT include GST		

Q70. True or False (Tick your response): This Bill of Quantities represents a job for a two-storey house.

Answer

☐	True
☒	False

☐

Q71. Identify two (2) materials being used for the floors?

Answer Carpet and Vinyl

☐

Q72. True or False (Tick your response): A landscaper has been contracted for this job.

Answer

☒	True
☐	False

☐

Q73. How much does the contracted plasterer cost?

Answer \$12,900

☐

Q74. How much do the kitchen appliances cost?

Answer \$2,700

☐

Q75. What percentage of the total cost does the fixing stage represent of the building contract?

Answer 23%

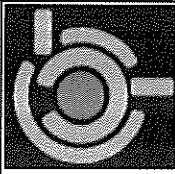
☐

Q76. What percentage of the total cost does the completion stage represent of the building contract?

Answer 17%

☐

Refer to the Purchase Order below to respond to Q77. to Q82.

	Organized Builders Estimating Solutions A.B.N. 30089592003 info@organizedbuilders.com.au P.O. Box 5280 Frankston South 3199 0413 770 956	Page 1 of 2 7 October 2011
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Purchase Order No Web2Stem/20

Delivery Date

Order Date 7/10/2011:

TO TO BE ALLOCATED TO	JOB Organized Builders P.O. Box 5280 Frankston South 3199 0413 770 956 Supervisor Builder Job Type Two Storey
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Please Supply: FRAME TIMBER

Reference	Description	Quantity	Units	@	Amount
	Frame timber	1		\$0.00*	\$0.00
	Ground floor walls and beams to ceiling / floor				
	Pine 90 x 35 mgp10 (long lengths)	130	m	\$1.00*	\$130.00
	Pine 90 x 45 mgp10 (Long Lengths)	120	m	\$1.00*	\$120.00
	Pine F5 90 x 45 studs 2.4 m long	100	each	\$1.00*	\$100.00
	Studs Cut to mm				
	Pine F5 90 x 45 studs 2.7 m long	45	each	\$1.00*	\$45.00
	Studs Cut to mm				
	Pine 90 x 45 mgp10 (Long Lengths)	322.5	m	\$1.00*	\$322.50
	studs over 2.7				
	60/3.0 25/3.3				
	90 x 45 KDHW F17	189.3	m	\$1.00*	\$189.30
	15/5.4 1/2.7 2/1.9 9/3.0 22/2.4 8/3.0				
	140 X 45 KDHW F17	70.8	m	\$1.00*	\$70.80
	13/3.6 7/2.4 4/1.8				
	240 X 45 KDHW F17	40.5	m	\$1.00*	\$40.50
	alternate option / better to use E14 beams in lieu of F17				
	7/3.6 2/3.3 1/2.1 1/1.5 1/1.2 1/3.9				
	240 X 45 KDHW F17	22.8	m	\$1.00*	\$22.80
	Must be H2 treated				
	2/3.6 4/3.9				
	290 x 45 F17 KDHW	71.4	m	\$1.00*	\$71.40
	6/3.9 2/3.3 4/4.2 6/3.6 1/1.2 1/1.8				
	Sheet brace 2400 x 1200 4mm Ply	3	sheet	\$1.00*	\$3.00
	Sheet brace 2700 x 1200 4mm Ply	6	sheet	\$1.00*	\$6.00
	Sheet brace 3000 x 1200 4mm Ply	4	sheet	\$1.00*	\$4.00

This Order is subject to our Standard Notes and Conditions. Authorised by:

Organized Builders

c2011 Databuild www.databuild.com.au 2 - 35 C:\Program Files (x86)\Databuild\reports\C10ord44.rpt Sheet May 10 13

Source: <http://organizedbuilders.com.au/sites/default/files/Databuild-Bill-of-Quantities.pdf>

Q77. How many Pine F5 90 x 45 studs (2.4m long) are required?

Answer 100

☐

Q78. If the material in Q77. increased in cost to \$2.75 each, what would be the total cost for this material?

Answer \$275

☐

Q79. How many sheet of ply are required in total (i.e. all sizes)?

Answer 13 sheets

☐

Q80. What material has the highest total cost?

Answer Pine 90 x 45 long lengths

☐

Q81. How many metres are required of the material in Q80. ?

Answer 322.5m

☐

Q82. What beam is identified as being a better option than F17?

Answer E14

☐

Refer to the labour chart below to respond to Q83. to Q86.

LABOUR		Registered (for des tra
BUILDING WORKS		Skilled Worker
Per hour		A S
17001	Asphalter (Road Construction).....	107.40
17002	Bamboo Scaffolder.....	187.20
17003	Bar Bender and Fixer.....	214.30
17004	Bricklayer.....	136.70
17005	Builder's Lift Operator.....	-
17006	Carpenter (Formwork - Building Construction).....	201.10
17007	Concrete Repairer (Spalling Concrete).....	185.60
17008	Concretor.....	194.50
17009	Construction Plant Mechanic.....	150.60
17010	Demolition Worker.....	165.60
17011	Drainlayer.....	166.00
17012	Floor Layer.....	139.20
17013	General Welder.....	152.00
17014	Glazier.....	154.80
17015	Joiner.....	139.20
17016	Leveller.....	150.20
17017	Marble Worker.....	179.80
17018	Mason.....	146.10
17019	Metal Scaffolder.....	131.00
17020	Metal Worker.....	154.70
17021	Painter and Decorator.....	127.40
17022	Painter (Texture-Spray).....	-
17023	Pipelayer.....	166.00
17024	Plant and Equipment Operator (other than cranes).....	129.60
17025	Plant and Equipment Operator (cranes generally).....	168.50
17026	Plasterer.....	154.70
17027	Plumber.....	140.20

Source: https://www.archsd.gov.hk/media/89170/sor2013_vol1_builders_works_2013_11_04.pdf

Q83. Based on the hourly rates given, which is the least expensive trade to contract?

Answer Asphalters

☐

Q84. If the trade in Q83. were to be contracted for two (2) hours' work, how much would this cost?

Answer \$214.80

☐

Q85. Based on the hourly rates given, which is the most expensive trade to contract?

Answer Bar bender and fixer

☐

Q86. If the trade in Q85. were to be contracted for six (6) hours' work, how much would this cost?

Answer \$1,285.80

☐

Q87. Name the building legislation (Act and Regulations) that apply within your jurisdiction and should be referenced when reading plans and building contracts.

Answer In Queensland: Building Act 1975 and Building Regulation 2006

☐

