

CPCCBC4012B

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.

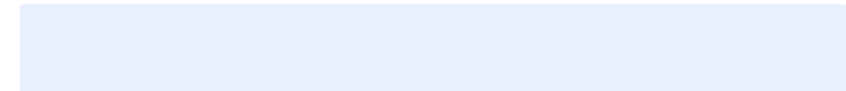
Participant name Barbra McCandlish

Participant signature



Assessor name _____

Assessor signature



Date 29/04/2019

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

ASSESSOR COMMENTS

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 ☐

Q3. What information is provided on a location plan?

Answer ☐

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

Answer ☐

Q5. What do floor plans identify?

Answer This shows from the 'top down' view. The detail/layout of the rooms and fixtures positioning. Floor coverings etc.



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

Answer The Landscape Plan shows details of all plants, paths, retaining walls, garden edging, showing their layout and positioning on the block.



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

Answer A view of the structure from the North, East, South, West. Each side is called an 'elevation'.



Q8. What is a section?

Answer It is a view of the structure if it was cut vertically. It shows the thickness of the layers (structural) and where everything fits in. Floor to Ceiling.



Q9. What are detailed drawings?

Answer Final detailed drawings would be a combination of all relevant plans including location plan, floor plan, sections, elevation views, landscape plans, all submitted and approved amendments must be given a revised drawing number and date.



Q10. What are specifications?

Answer Specifications show the brands (or equiv) model, type, size and finish of all components. It includes color and materials used in the fixtures, fittings, the structure, and the landscaping, standards can be applied.



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

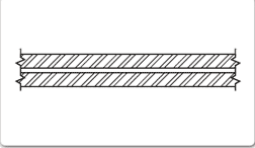
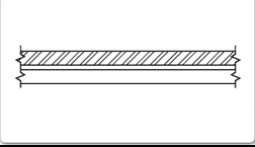
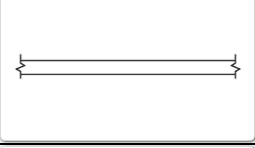
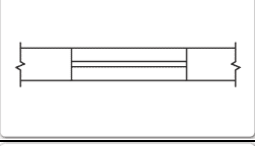
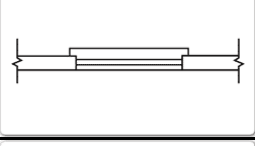
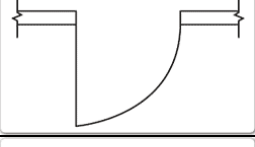
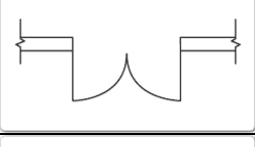
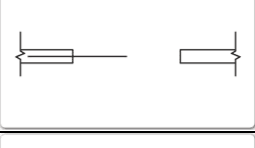
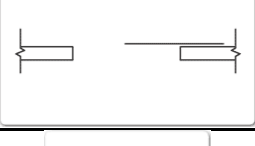
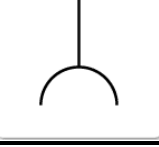
Answer

Abbreviation	Meaning
ACRYL	Acrylic
AS	Aust Standard
ASSD	Assumed Datum
B	Basin
BN	Bullnose
BTH	Bath
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 Levels
FHR	Fire Hose Reel
GPO	General Purpose Outlet
HBD	Hardboard
HTR	Heater
HWD	Hardwood



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

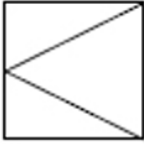
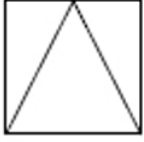
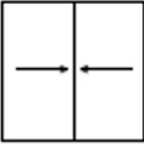
Answer

Name	Image
Wall Cavity Brick	
Wall Brick Veneer	
Wall Timber Stud	
Window In Cavity Wall	
Window in Single Wall	
Door Swing Single	
Door Swing Double	
Door Sliding into pocket	
Door Sliding exposed on wall	
Socket outlet Power (general)	



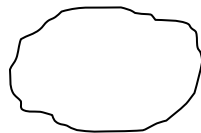
Q13. Identify what the following window symbols represent on elevations.

Answer

Item	Drawing
Hinged at the side	
Hinged at the top	
Slides horizontally	
Fixed	

☐

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



Answer Changes to a revision on an earlier plan (original), is highlighted by 'clouding'.

☐

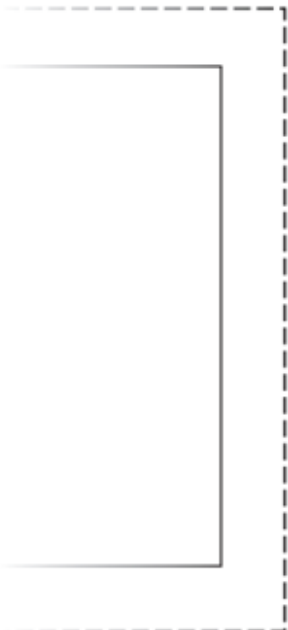
Q15. An amendment to specifications could relate to which of the following?
Tick all that apply.

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 5 October 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

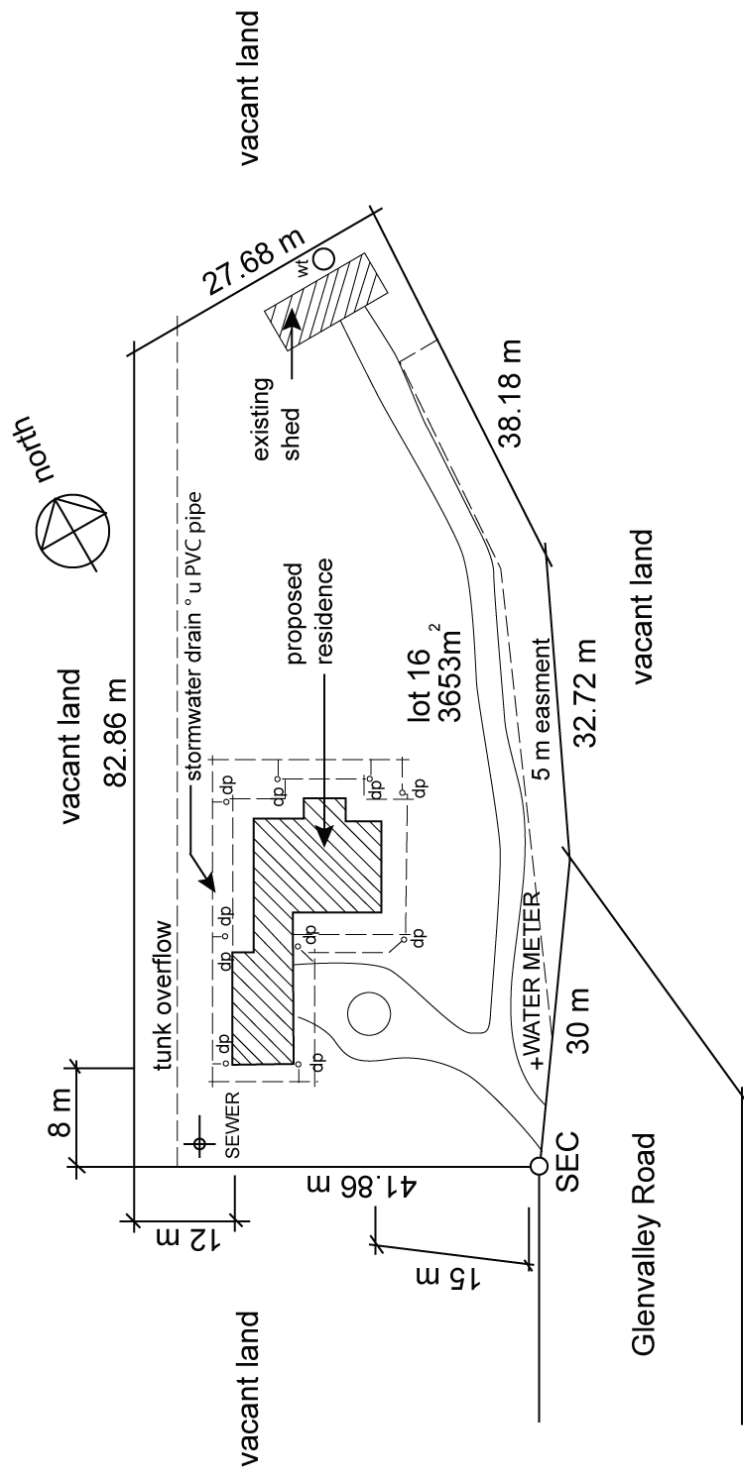
☐

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

Answer Bedroom 3 wardrobe was 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	3,653m2
--------	---------

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

☐

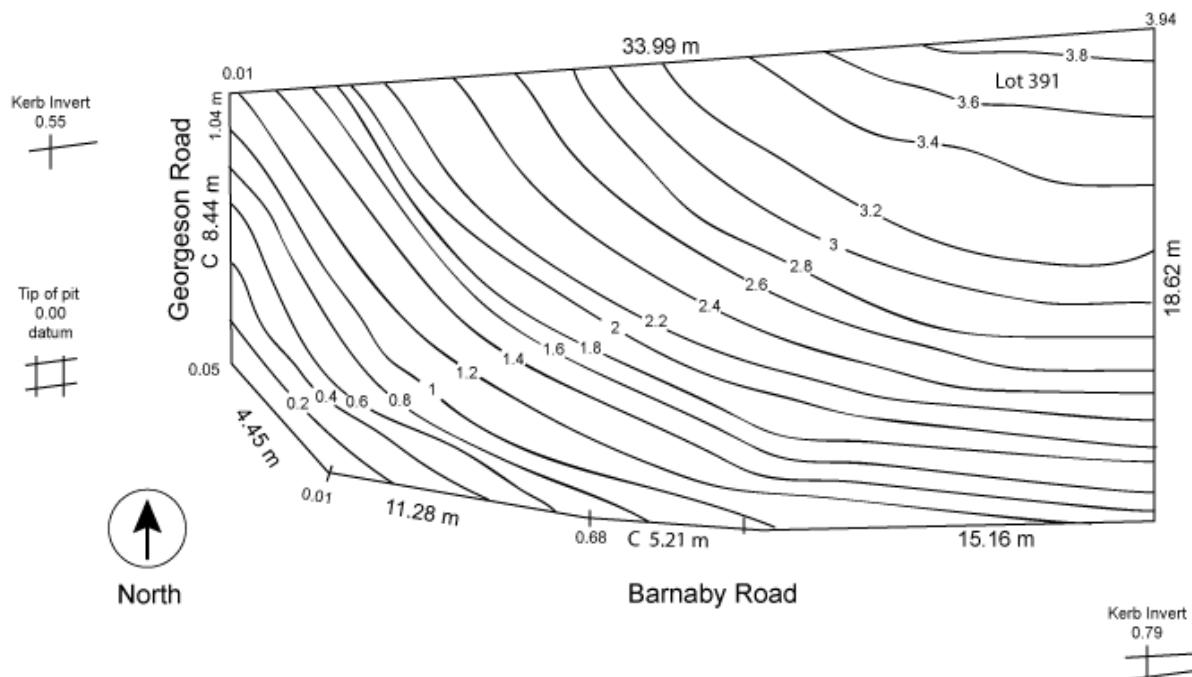
Q26. True or False (Tick your response): The stormwater drain is constructed from PVC pipe.

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 3.94m

☐

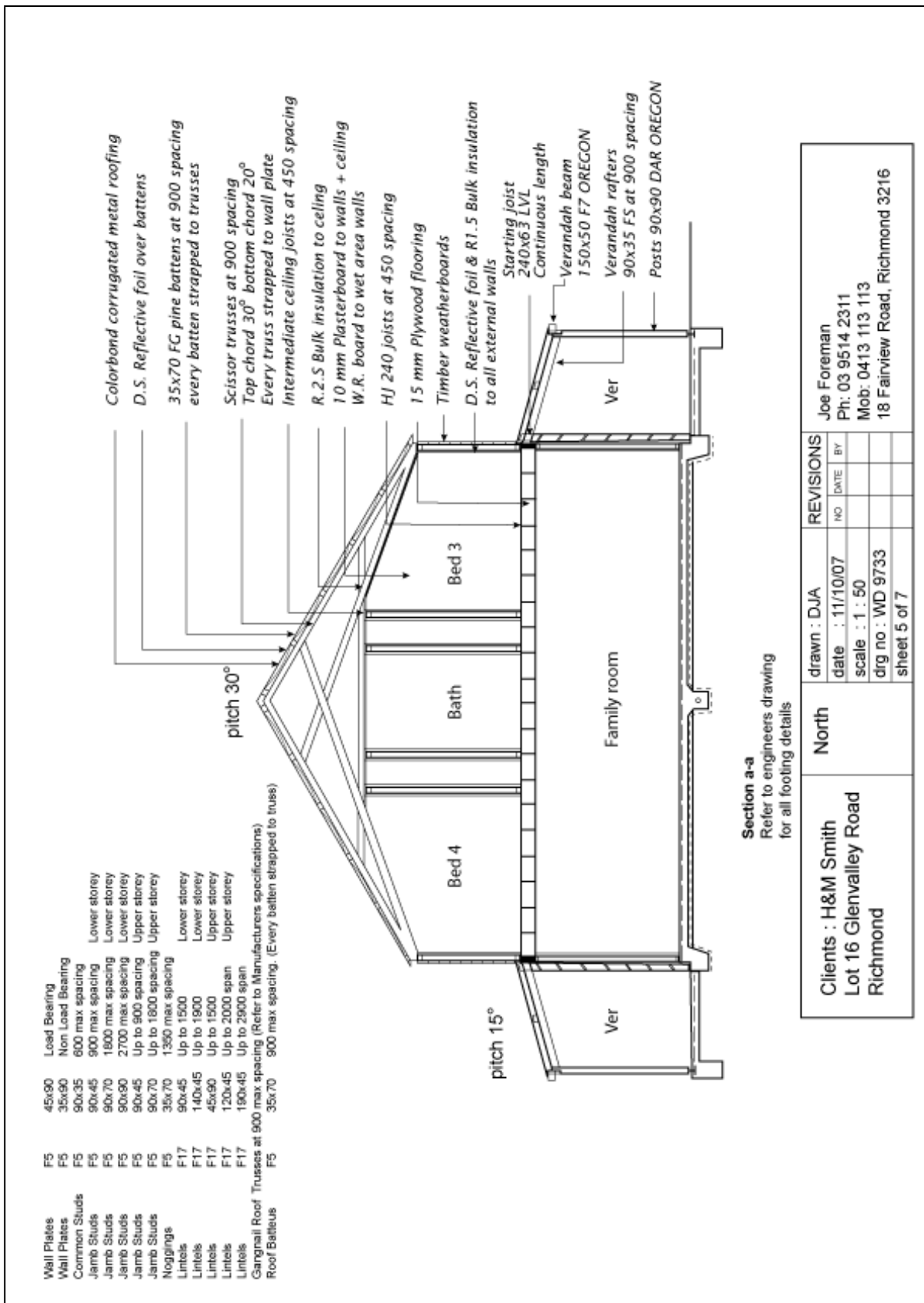
Q28. Which end of the site has the lowest level? Tick your response.

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 Proposed high set residential structure for the same client.

☐

Q30. Who is the client?

Answer H&M Smith

☐

Q31. Where is this project to be built?

Answer Lot 16 Glen Valley Road, Richmond

☐

Q32. What are the contact details for the draftsman?

Answer Joe Foreman
(03) 9514 2311
0413 113 113
16 Fairview Road, Richmond Vic 3216

☐

Q33. What sheet number is this drawing?

Answer Sheet 5 of 7

☐

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

Answer F7

☐

Q35. What spacing is recommended for common studs?

Answer 600mm max spacing

☐

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

Answer Scissor trusses

☐

Q37. What centres are the trusses positioned at?

Answer 900mm spacing, ceiling joists @450mm

☐

Q38. What size are the veranda posts?

Answer 90mmx90mm

☐

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

Answer F7 Oregon

☐

Q40. What pitch is the roof?

Answer 30degree

☐

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

Answer 35mmx70mm and 1350mm max spacings

☐

Q42. What size are the ceiling joists?

Answer 240mmx63mm

☐

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

Answer 35mmx70mm Pine battens @900mm spacings

☐

Q44. What thickness is the plasterboard sheeting?

Answer 10mm plasterboard

☐

Q45. What type of flooring is to be installed?

Answer 15mm Plywood floor

☐

Q46. What is the roof cladding material?

Answer Colorbond Corrugated metal sheeting

☐

Q47. Where will you find information about the footings?

Answer Engineers structural drawings

☐

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

Answer The 'type' or 'quality' of the timber

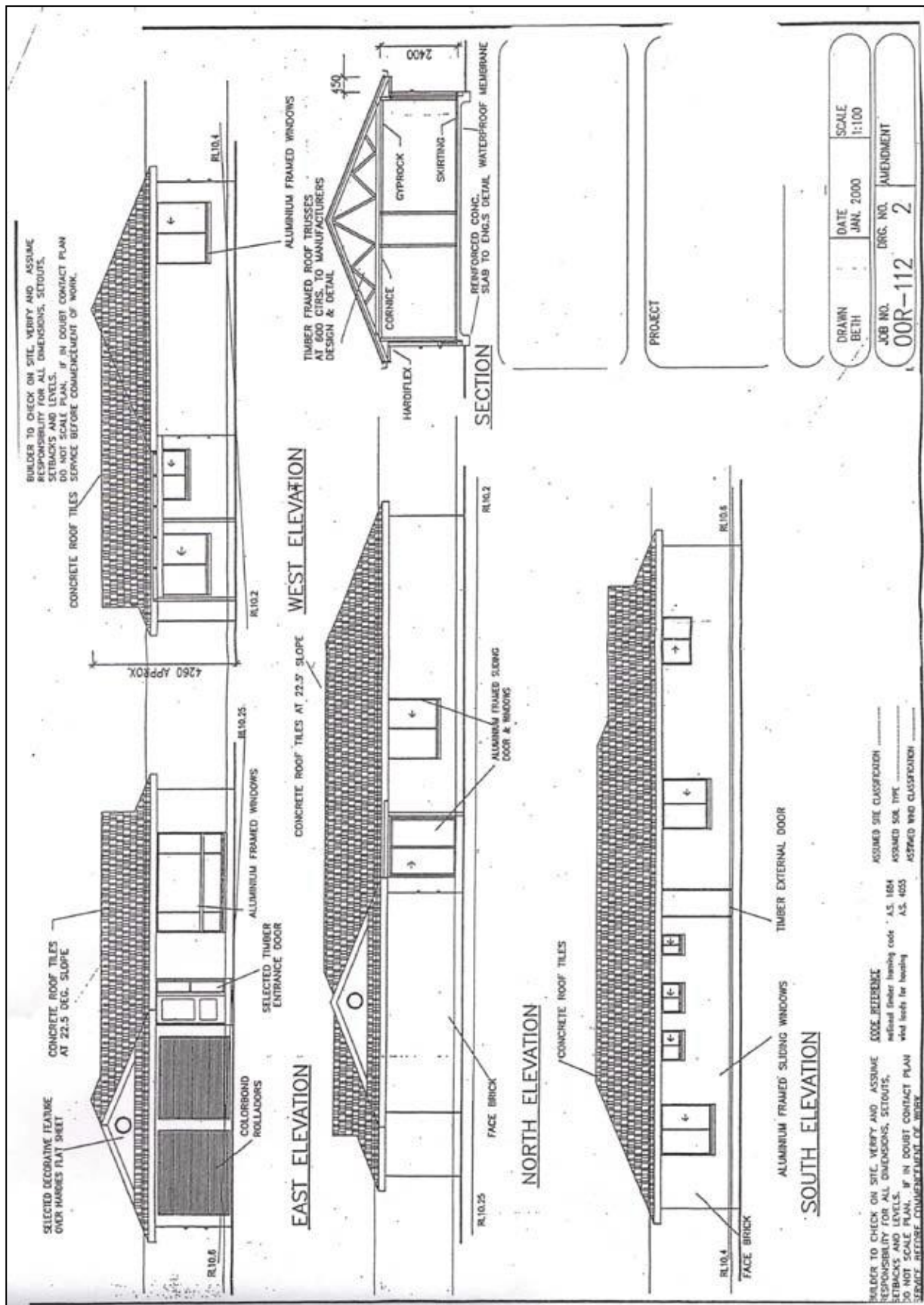
☐

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

Answer 240mmx63mm timber and must be level/true horizontal to avoid defects elsewhere in the build

☐

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 Hardiflex

☐

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

Answer Timber framed roof trusses

☐

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

Answer Part 3.11.6 (Vol 2 2016)

☐

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

Answer Timber structures AS1684 and AS1720 timber structure, and AS4440-2004 installation of timber trusses

☐

Q62. What is the roof cladding materials made from?

Answer Concrete

☐

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

Answer Part 3.5.1 (Vol 2 2016

☐

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

Answer AS2049-2002 roof tiles, AS4046 testing roof tiles. AS2050-2002 for installation

☐

Q65. What is the roof pitch?

Answer 22.5degrees

☐

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

Answer Brisbane City Council (Local Council)



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

Answer Go to PD online and apply online (or in person at a Council Office). Refer to the online portal to track the process of the application/submission. After the standard assessment #1 to #5 has been completed, you will be notified within 5 business days of #5. Then there is a possible appeals stage #6 if necessary.



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

Answer An amount of money included in a contract sum to purchase a specified item such as a tap or a bath. It is an estimated cost that is reasonable (& agreed at contract).



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

Answer An amount which has been allocated to cover works which are not detailed. This is usually for things like site works unknown, such as making an assumption that the site is a class 'S' site, or if there are rocks or boulders found underground that need to be removed with machinery which costs extra time and money.



Refer to the Bill of Quantities below to respond to Q70. to Q76.

	Organized Builders Estimating Solutions <u>Bill Summary</u>	Page 1 of 2 7 October 2011
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Web2Stem Website Template 2 storey
 Organized Builders
 P.O. Box 5280 Frankston South 3199
 0413 770 956

<u>Cost Centre</u>		<u>Amount</u>	
01	PRELIMINARIES	\$21,239.00	5.9%
01A	Preliminary Stage	\$0.00	.0%
02	SITE PREP & DEMOLITION	\$6,010.00	1.7%
03	HIRE ITEMS	\$8,909.70	2.5%
04	SET OUT	\$1,350.00	.4%
05	POWER PROVISION	\$2,670.00	.7%
06	WATER CONNECTION	\$1,550.00	.4%
07	SEWERAGE & STORMWATER	\$9,400.00	2.6%
01 - Prelims		\$51,128.70	14%
08A	Base Stage	\$0.00	.0%
08	PUMP & CRANE HIRE	\$2,070.00	.6%
09	TERMITE CONTROL	\$700.00	.2%
13	FOUNDATION PACKAGE	\$19,079.00	5.3%
17	STRUCTURAL STEEL	\$12,000.00	3.3%
02 - Base		\$33,849.00	9%
20A	Frame Stage	\$0.00	.0%
20	FRAME TIMBER	\$5,127.16	1.4%
22	FLOOR TRUSSES	\$2,249.60	.6%
23	ROOF TRUSSES	\$3,360.00	.9%
24	WINDOWS ALUMINIUM	\$25,541.00	7.1%
29	FRAME CARPENTER	\$7,336.00	2.0%
03 - Frame		\$43,613.76	12%
30A	Lockup Stage	\$0.00	.0%
31	METAL ROOF	\$16,538.90	4.6%
32	RENDERING	\$9,096.00	2.5%
34	BRICK SUPPLY	\$3,276.00	.9%
35	BRICK SAND	\$600.00	.2%
36	STEEL LINTELS	\$828.52	.2%
38	BRICKLAYER	\$8,460.00	2.4%
39	ELECTRICIAN	\$152.01	.0%
40	INTERCOM & SECURITY	\$1,200.00	.3%
41	PLUMBER	\$6,775.00	1.9%
42	DUCTED HEATING & COOLING	\$18,900.00	5.3%
43	INTERNAL LOCKUP MATERIALS	\$921.85	.3%
45	INTERNAL LOCKUP CARPENTER	\$2,400.00	.7%
46	WALL INSUALTION	\$3,285.50	.9%
47	EXTERNAL LOCKUP MATERIALS	\$1,938.70	.5%
48	EXTERNAL LOCKUP CARPENTER	\$11,770.00	3.3%
04 - Lockup		\$86,142.48	24%
50A	Fixing Stage	\$0.00	.0%

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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	\$7,398.80	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 Floating Floors

☐

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+gst

☐

Q74. How much do the kitchen appliances cost?

Answer \$2,700+gst

☐

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	Page 1 of 2
	A.B.N. 36089592003	
	info@organizedbuilders.com.au	
	P.O. Box 5280 Frankston South 3199 0413 770 956	7 October 2011

Purchase Order No Web2Stem/20

Delivery Date

Order Date 7/10/2011:

TO	JOB Organized Builders P.O. Box 5280 Frankston South 3199 0413 770 956 Supervisor Builder Job Type Two Storey
---	--

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				
	80/3.0 25/3.3				
	90 x 45 KDHW F17	189.3	m	\$1.00 *	\$189.30
	15/5.4 1/2.7 2/9 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

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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 No.

☐

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

Answer \$275.00+gst

☐

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

Answer 13 No.

☐

Q80. What material has the highest total cost?

Answer Pine 90mmx45mm mgp10 (long lengths)

☐

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

Answer 42.48m2

☐

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

Answer 35.4Lm

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

LABOUR		Registered (for des trac
BUILDING WORKS		Skilled Worker
<i>Per hour</i>		A \$
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 Painter and Decorator \$127.40/hr+gst

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

Answer \$254.80/hr+gst

☐

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

Answer Bar Bender and Fixer \$214.30/hr+gst

☐

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

Answer \$1,285.80+gst

☐

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

Answer Building Act 1975 (Qld)
Building Regulation Act 2006 (Qld)
Observe Local Council Requirements

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