

BILL OF QUANTITIES
FOR
PROPOSED UNITS 7&8
EAST HILLS
VOLUME 2

PREPARED BY J. LE MESURIER, QUANTITY SURVEYOR
CLIENT: TWILIGHT RETIREMENT VILLAGES PTY LTD

<u>WINDOWS</u>				
<u>GENERALLY</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM.	Note		
B	Refer to the relevant Specification sections containing particulars of windows.	Note		
C	Refer to Section 18 of the ASMM for details of Measurement and Prices.	Note		
<u>SHOP DRAWINGS</u>				
D	Allow for preparation and submission of shop drawings for windows as specified	Item		
<u>SAMPLES</u>				
E	Allow for providing samples of windows as specified	Item		
<u>ALUMINIMIUM FRAMED WINDOWS</u>				
F	Prices for all windows to include for matching insect screens as specified	Note		
G	Clear anodised aluminium framed sliding window units inclusive of factory clear glazing, flashings, fixings, furniture and trims; to suit opening 1210 wide x 1029 high and include for building into brick cavity wall.	no	2	
H	Ditto to suit opening 1210 wide, 1039 high.	no	2	
J	Ditto to suit opening 1810 wide x 1457 high	no	5	
K	Ditto to suit opening 1810 wide x 1467 high	no	4	
L	Ditto but with obscure glazing 1210 wide x 686 high.	no	1	
M	Ditto 1210 wide x 696 high.	no	1	

To Collection \$

<u>WINDOWS (Cont)</u>				
<u>(Cont) ALUMINIMIUM FRAMED WINDOWS</u>				
A	Clear anodised aluminium framed double hung sash window unit inclusive of clear glazing, flashings, fixings, furniture and trims; to suit opening 850 wide x 1467 high and include for building into brick cavity wall.	no	1	
B	Ditto 850 wide x 1982 high.	no	1	
<u>ALUMINIUM FRAMED SLIDING DOOR</u>				
C	Prices for sliding door units to include for matching insect screens as specified	Note		
D	Clear anodised aluminium framed sliding door unit inclusive of factory clear glazing, flashings, fixings, furniture and trims; to suit opening 1810 wide x 2067 high and include for building into brick cavity wall.	no	1	

To Collection \$

WINDOWS (Cont)

COLLECTION

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WINDOWS

Carried to Summary

<u>DOORS</u>				
<u>GENERALLY</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM.	Note		
B	Refer to the relevant Specification sections containing particulars of doors.	Note		
C	Refer to Section 19 of the ASMM for details of Measurement and Prices	Note		
<u>SAMPLES AND TESTS</u>				
D	Allow for supplying all samples and carrying out any tests required by the Specification	Item		
<u>SHOP DRAWINGS</u>				
E	Allow for providing shop drawings for the timber framed entry door assembly (Door D01)	Item		
<u>ALUMINIUM FRAMED DOORS</u>				
F	Aluminium framed doors have been measured in the Windows trade.	Note		
<u>METAL DOOR FRAMES</u>				
G	Single rebated prime coated steel door frames , to suit 2040 x 820 x 35 thick single leaf doors, complete with a pair of steel butt hinges, latch keep and striking plate; include for building into 110 thick brick partition walls.	no	6	
H	Ditto to suit 2040 x 720 x 35 thick single leaf door.	no	1	
J	Double rebated prime coated steel door frames, to suit 2040 x 820 x 35 thick sliding doors; include for building into 110 thick brick partition walls.	no	4	
<u>DOORS</u>				
K	Glazed doors to be factory glazed	Note		

To Collection \$

<u>DOORS (Cont)</u>					
<u>(Cont) DOORS</u>					
<u>External Timber Doors</u>					
A	Half glazed single door, 2040 x 820 x 40 (timber frame measured elsewhere)	no	1		
B	Glazed single entry door in door and sidelight assembly to suit overall opening size 1280 wide x 2067 high (door only: timber frame complete with sidelight measured elsewhere)	no	1		
<u>Internal Timber Doors</u>					
<u>Timber veneered hollow core flush doors, ready for paint finish</u>					
C	Single door, 2040 x 720 x 35 thick	no	1		
D	Single sliding door, 2040 x 820 x 35 thick	no	4		
E	Single door, 2040 x 820 x 35 thick	no	6		
<u>Fire Rated Doors</u>					
F	One hour fire rated 2040 x 820 x 40 thick entry fire door with and including single rebated primed steel door frame complete with hinges, latch keep and striker plate; include for building into brick wall and packing frame with cement mortar.	no	2		
<u>SECURITY VIEWERS</u>					
G	Security viewer as specified fixed in entry door to apartment	no	2		
<u>DOOR STOPS</u>					
H	Wall mounted door stop, approx. 75 long overall, comprising screw fixed nylon, cast brass or diecast base plate and a close wound spiral wire with plastic tip	no	6		

To Collection \$

DOORS (Cont)

COLLECTION

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DOORS

Carried to Summary

<u>FINISHES</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM.	Note		
B	Refer to the relevant Specification sections containing particulars of finishes.	Note		
C	Refer to Section 20 of the ASMM for details of Measurement and Prices.	Note		
D	All Finishes are internal except where noted as external work. Plastering - Cement Render - noted PCR	Note		
E	Preparation of concrete stair landing soffits to receive cement render by coating with an approved PVA bonding agent.	m2	4	
F	Ditto raking soffits of concrete stair flights.	m2	5	
G	Ditto concrete stair strings, varying in width from 130 to 280mm :[7 m]	m2	1	
H	Ditto rendered edges of concrete floor slabs in rendered wall areas, 0 - 250mm high :[5 m]	m2	1	
J	Cement render to brickwall surfaces, 13mm maximum thickness, in one coat, composed of 2 parts cement, 1 part hydrated lime and 10 parts sand finished off a wood float and finished with a plastic foam float to a fine sand texture finish.	m2	346	
K	Ditto 0 - 250mm wide :[110 m]	m2	11	
L	Ditto to prepared concrete stair soffits.	m2	4	
M	Ditto raking soffits of prepared concrete stair flights.	m2	5	
N	Ditto exposed face of prepared concrete stair strings cut to profile of treads and risers, varying in width from 130 to 280mm. :[7 m]	m2	1	
P	Ditto exposed edges of prepared concrete floor slabs in rendered wall areas, 0 - 250mm wide :[5 m]	m2	1	

To Collection \$

<u>FINISHES (Cont)</u>				
<p>(Cont) Plastering - Cement Render - noted PCR</p>				
A	<p>Cement render to wet area brickwall surfaces, 13mm maximum thickness, in one coat, composed of 2 parts cement, 1 part hydrated lime and 10 parts sand finished off a wood float and finished with a plastic foam float to a fine sand texture and after setting rubbed down with a carborundum stone and left ready to receive ceramic wall tiling measured separately hereinafter.</p>	m2	28	
<p>External Cement Render</p>				
B	<p>Cement render to external blockwork, 13 maximum thickness in one coat, composed of 3 parts sand, 1 part cement, smooth finish ready to receive paint</p>	m2	9	
<p>Wet Area Waterproofing</p>				
<p><u>Waterproofing to comply with AS 3740 to wet area floors and floors installed by an accredited applicator registered with the NSW Waterproofing Industry Association.</u></p>				
C	<p>To floors, comprising 10 thick minimum screed and membrane graded to fall to floor wastes</p>	m2	13	
D	<p>To walls comprising membrane fixed to rendered surface (render measured elsewhere)</p>	m2	19	
<p>Tiling - Generally</p>				
E	<p>Allow for submitting samples of tiles intended to be used for approval.</p>	Item		
F	<p>Allow for providing spare matching tiles of each type and store in works as directed.</p>	Item		
<p>Ceramic Wall Tiles - noted CWT</p>				
G	<p>150 x 150mm fully glazed white first quality ceramic wall tiles of Australian manufacture adhesive fixed to rendered brickwall surfaces and pointed up with white grouting compound.</p>	m2	28	

To Collection \$

<u>FINISHES (Cont)</u>				
(Cont) Ceramic Wall Tiles - noted CWT				
A	Round/cushioned edge tiles in foregoing ceramic wall tile areas - net length of edge measured	m	26	
B	150mm high ceramic tile skirting comprising one course of 150 x 150mm fully glazed white cushioned edge tiles adhesive fixed to rendered walls and pointed up all as before described..	m	6	
Ceramic Floor Tiles - noted CFT				
C	Allow the PC rate of \$60.00/m2 for the supply only of 100 x 100mm selected ceramic floor tiles obtained from a Nominated Supplier.	m2	13	
D	Take delivery and fix only 100 x 100mm selected ceramic floor tiles bedded in cement on a bed of cement mortar (1:3 to 1:4 mix), pointed up with grout coloured to match the tiles to concrete floor slabs and graded to fall to floor wastes.	m2	13	
Quarry Tiling - noted QT				
E	Allow the PC rate of \$40.00/m2 for the supply only of selected 200 x 200mm quarry floor tiles from a Nominated Supplier.	m2	19	
F	Allow the PC rate of \$10.00/m for the supply only of 200 x 100mm grooved nosing quarry tiles from a Nominated Supplier.	m	19	
G	Take delivery and fix only selected 200 x 200mm quarry floor tiles bedded in cement on a bed of cement mortar (1:3 to 1:4 mix) and pointed up with grout coloured to match the tiles to concrete floor slabs.	m2	9	
H	Ditto to concrete stair landings.	m2	4	
J	Ditto to undercut concrete stair risers, approx 167mm high; include for all necessary cutting.	m	18	
K	Take delivery and fix only one course of 200 x 100mm grooved nosing quarry tiles and a cut course of 200 x 200mm quarry tiles to approx 260mm wide concrete treads.	m	16	

To Collection \$

<u>FINISHES (Cont)</u>				
	(Cont) Quarry Tiling - noted QT			
A	Ditto 200 x 100mm grooved nosing quarry tiles at landings.	m	3	
	Quarry Tiling - External Work - noted QT			
B	Allow the PC rate of \$40.00/m ² for the supply only of selected 200 x 200mm quarry floor tiles from a Nominated Supplier.	m ²	10	
C	Allow the PC rate of \$10.00/m for the supply only of 200 x 100mm grooved nosing quarry tiles from a Nominated Supplier.	m	11	
D	Take delivery and fix only selected 200 x 200mm quarry floor tiles bedded in cement on a bed of cement mortar (1:3 to 1:4 mix) and pointed up with grout coloured to match the tiles to concrete floor slabs.	m ²	7	
E	Ditto to undercut concrete stair risers, approx 175mm high; include for all necessary cutting.	m	6	
F	Take delivery and fix only one course of 200 x 100mm grooved nosing quarry tiles and a cut course of 200 x 200mm quarry tiles to approx 275mm wide concrete treads.	m	6	
G	Ditto 200 x 100mm grooved nosing quarry tiles at landings and external door thresholds.	m	5	
	Vinyl Floor Sheeting - noted VFS			
H	Allow the PC rate of \$54.00/m ² for the supply and fixing complete of selected vinyl floor sheeting to concrete floor slabs by a Nominated Sub Contractor.	m ²	9	
J	Allow the PC rate of \$15.00/m for the supply and fixing complete of 100mm high vinyl skirting by a Nominated Sub Contractor.	m	7	

To Collection \$

<u>FINISHES (Cont)</u>				
	Carpet - noted C			
A	Allow the PC rate of \$80.00/m2 for the supply and fixing complete of selected carpet complete with rubber underlay by a Nominated Sub Contractor.	m2	89	
	Floor Finish Dividers			
B	Extruded aluminium division strip at junction of carpet and sheet vinyl flooring at door openings.	m	2	
C	4mm thick aluminium strip at junction of carpet with ceramic floor tiles and quarry floor tiles set into tiling bed at door openings.	m	4	
	Plasterboard Ceiling Lining and Cornice - noted PPB.			
D	13mm thick recessed edge gypsum plasterboard ceiling lining finished with flush joints and fixed direct to underside of timber roof trusses spaced at 600mm centres.	m2	66	
E	Ditto fixed to and including 50 x 50 softwood battens fixed to soffit of concrete slab spaced at 400 centres.	m2	57	
F	90mm coved plasterboard cornice fixed at junction of plasterboard ceiling lining and render walls.	m	173	

To Collection \$

FINISHES (Cont)

COLLECTION

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FINISHES

Carried to Summary

<u>PAINTING</u>				
<u>GENERALLY</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM Edition 5	Note		
B	Refer to the relevant Specification sections containing particulars of painting	Note		
C	Refer to Section 21 of the ASMM for details of Measurement and Prices.	Note		
<u>WORK IN OTHER TRADES</u>				
D	Priming of timber before installation included in WOODWORK.	Note		
<u>SAMPLES</u>				
E	Allow for providing all samples required by the Specification.	Item		
<u>WARRANTIES</u>				
F	Allow for providing all warranties as required by the Specification	Item		
<u>PREPARATION</u>				
G	Unit rates for painting should include for all surface preparation as specified	Note		
<u>EXTERIOR WORK</u>				
One coat oil based undercoat and two solvent-borne semi-gloss finishing coats to:				
H	Pre-primed Weathertex boarding to gable ends	m2	8	
J	Ends of awnings	m2	1	
One undercoat and one two part epoxy finishing coat to pre-primed steelwork				
K	Pre-primed steelwork	m	1	
L	Exposed galvanised steel lintels not exceeding 250 girth	m	57	

To Collection \$

<u>PAINTING (Cont)</u>				
<u>(Cont) EXTERIOR WORK</u>				
Three coats low gloss exterior latex (first coat 20% thinned) to the following:				
A	Fibre cement eaves lining	m2	18	
B	Fibre cement ceiling lining to balcony roof	m2	7	
C	Fibre cement lining to soffit of awnings	m2	7	
D	Rendered blockwork walls	m2	9	
One coat oil-based primer, one oil-based undercoat and one solvent-borne full gloss finishing coat to the following:				
E	Glazed timber door and sidelight, measured flat both sides	m2	6	
F	Half glazed timber door, measured flat both sides	m2	4	
G	Timber fascias not exceeding 250 girth	m	42	
H	Timber barges not exceeding 250 girth	m	18	
<u>INTERIOR WORK</u>				
One coat sealer and two finishing coats of flat acrylic to				
J	Plasterboard ceilings	m2	123	
K	Coved plaster cornices not exceeding 250 girth	m	173	
One undercoat and two low sheen acrylic finishing coats to:				
L	Rendered walls including areas not exceeding 250 wide	m2	358	
M	Rendered stair soffits and strings	m2	10	
One oil-based undercoat and two solvent-borne full gloss finishing coats to:				
N	Pre-primed flush timber doors	m2	47	
P	Timber pelmets (all faces measured)	m2	4	

To Collection \$

<u>PAINTING (Cont)</u>				
<u>(Cont) INTERIOR WORK</u>				
(Cont) One oil-based undercoat and two solvent-borne full gloss finishing coats to:				
A	Timber sill boards, girth not exceeding 250	m	27	
B	Timber skirtings, ditto	m	107	
C	Stair handrail, ditto	m	5	
One coat metal primer and two full gloss finishing coats to:				
D	Galvanised steel door frames	m2	18	
E	1000 high galvanised stair balustrade, comprising 50 x 10 balusters and rails, balusters spaced at 125 max. centres, measured flat both sides, including fixing plates.	m2	8	

To Collection \$

PAINING (Cont)

COLLECTION

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PAINING

Carried to Summary

<u>HYDRAULICS AND DRAINAGE</u>				
<u>GENERALLY</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM Edition 5	Note		
B	Refer to the relevant Specification sections containing particulars of Hydraulics and Drainage	Note		
C	Refer to Sections 23 and 24 of the ASMM for details of Measurement and Prices.	Note		
<u>WORK IN OTHER TRADES</u>				
The following items have been measured in other trade sections:				
D	Downpipes and gutters: ROOFING AND ROOF PLUMBING	Note		
<u>METHOD OF MEASUREMENT</u>				
E	Hydraulics and Drainage have been measured together as a combined Bill of Quantities trade rather than as separate trades as detailed in the ASMM.	Note		
F	Notwithstanding 'Information to be Included' Clause 4(d) of Section 23 of the ASMM, the quantity and scope of the identification work has not been given.	Note		
G	Notwithstanding Measurement Rule M5 of Section 23 of the ASMM, fixing to metal or steel surfaces has not been described and measured separately. Pipework has only been described as "fixed to walls, framing etc. " or suspended from soffits, etc.". Background surfaces have not been given for fixtures, equipment and similar items. Prices will be deemed to include for fixing to any background.	Note		
H	Pipework described as "suspended from soffits, etc." will be deemed to include pipework fixed within or below roof framing and similar.	Note		
J	All excavation for pipework laid in ground will be deemed to be in 'material as found'.	Note		

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>(Cont) METHOD OF MEASUREMENT</u>				
A	Thrust blocks and concrete encasement to fittings, valves etc. have not been measured. Prices will be deemed to include for all such items.	Note		
B	The contract documents do not give the invert levels of drains or such other information as is necessary for the calculation of depths of excavations	Note		
C	Notwithstanding Measurement Rule M4 of Section 24 of the ASMM, commencing level for excavation has not been given. Unless otherwise stated excavation has been measured from existing ground level, reduced level or excavated level as appropriate	Note		
<u>TRADE NAMES</u>				
D	All trade names included in this Bill of Quantities will be deemed to have the words 'or equal approved' inserted after them.	Note		
<u>NOTICES AND PERMITS</u>				
E	Allow for giving notices, obtaining permits, paying fees, obtaining certificates of satisfactory completion issued by a local authority where required and similar, in connection with the installations	Item		
<u>TESTING</u>				
F	Allow for testing installations	Item		
<u>STERILIZING</u>				
G	Allow for the sterilizing of installations	Item		
<u>IDENTIFICATION</u>				
H	Allow for marking pipes with colour bands, tags, plates, badges or lettering for identification purposes, or with arrows for indicating directions of flow for each type of installation	Item		

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>WORK AS EXECUTED DRAWINGS</u>				
A	Allow for providing work as executed drawings as specified	Item		
<u>INSPECTIONS</u>				
B	Allow for inspections by regulatory authorities as specified	Item		
<u>DEWATERING</u>				
C	Allow for keeping excavations free from rain and percolating water by pumping or otherwise	Item		
<u>COLD WATER SERVICE</u>				
Copper pipes to AS1432 Type B and fittings with silver brazed capillary joints				
D	15 dia. pipework in chases in brickwork	m	16	
E	15 dia. pipework suspended from soffits or run in ceiling void	m	8	
F	20 dia. pipework, ditto	m	37	
G	20 dia. pipework, embedded in concrete	m	1	
H	20 dia. pipework in vertical duct or cavity	m	16	
J	20 dia. pipework; laid in ground not exceeding 1000 deep; including all necessary excavation and backfilling	m	31	
K	25 dia. pipework, ditto	m	12	
L	Special connection between 20 dia copper pipe and solar hot water unit	no	2	
Pipe Sleeves				
M	Encase 20mm dia. copper pipework under slabs in UPVC sleeve or PVC coated tube to prevent ingress of moisture	m	1	

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>(Cont) COLD WATER SERVICE</u>				
Medium density polyethylene (MDPE) or equivalent pipes to rainwater service as specified				
A	15 dia. pipework in chases in brickwork	m	10	
B	20 dia. pipework; suspended from soffits, or run in ceiling void	m	42	
C	20 dia. pipework, embedded in concrete	m	1	
D	20 dia. pipework in cavity	m	9	
E	20 dia. pipework; laid in ground not exceeding 1000 deep; including all necessary excavation and backfilling	m	3	
F	25 dia. pipework, ditto	m	12	
G	20 dia. pipework fixed to brickwork	m	2	
H	25 dia. pipework, ditto	m	2	
J	Special connection between 25 dia MDPE pipe and rainwater tank	no	1	
Connection to Mains				
K	Connection between 25 dia copper pipework and existing 25 dia underground main; including locating and cutting into existing pipework, all necessary excavation, backfilling, fittings, any additional pipework etc.; including reinstating on completion	no	1	
Supply and Installation of Meters				
L	20 dia water meter assembly including two no. isolation valves (IV), double check valve (DCV), fittings and unions, any connections or jointing to piping etc.; all in accordance with the Supply Authority's requirements	no	2	
M	Approved path box to suit water meter assembly including all necessary excavation and backfilling	no	2	

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>HOT WATER SERVICE</u>				
Copper pipes to AS1432 Type B and fittings with silver brazed capillary joints				
A	15 dia. pipework; suspended from soffits, etc	m	56	
Pre lagged copper pipes to AS1432 Type B and fittings with silver brazed capillary joints				
B	15 dia. pipework; fixed to walls, framing, etc	m	25	
C	Special connection between 15 dia copper pipe and solar hot water unit	no	2	
25 thick thermotec 4-zero insulation over-wrapped with sisalation; fixed to copper pipework				
D	Lagging to 15 dia. pipe	m	56	
<u>SOIL WASTE AND VENT INSTALLATION</u>				
Rigid uPVC pipes and fittings class DWV to AS/NZS 1260 with solvent welded joints				
E	40 dia. pipework; suspended from soffits, etc	m	1	
F	50 dia. pipework; ditto	m	3	
G	100 dia. pipework; ditto	m	4	
H	40 dia. pipework; fixed to walls, framing etc	m	2	
J	50 dia. pipework; ditto	m	11	
K	100 dia. pipework; ditto	m	6	
L	40 dia. bend	no	2	
M	50 dia. bend	no	4	
N	100 dia. bend	no	4	
P	100 x 100 x 50 dia. Y junction	no	3	
Q	100 x 100 x 100 dia. Y junction	no	2	

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>(Cont) SOIL WASTE AND VENT INSTALLATION</u>				
uPVC traps and similar items; including pipework in connections not exceeding 1000 long; including any connections or joints to piping and fixtures, appliances or equipment				
A	40 dia. 'P' or 'S' trap	no	2	
B	50 dia. 'P' or 'S' trap	no	6	
uPVC gullies and similar; including any connections or joints to piping and fixtures, appliances or equipment				
C	100 dia floor waste gully inlet riser junction including screwed removable grate	no	2	
D	Clear out	no	1	
Cowls, gratings, stays as specified; including any connections or joints to piping etc				
E	Vent cowl to suit 50 dia. vent pipe	no	2	
F	Collar flashing ditto	no	2	
<u>TAPS, COCKS, VALVES AND SIMILAR</u>				
G	Combined outlet sets will be deemed to include all cocks, breeching pieces, concealed pipes, risers between breeching pieces or cocks and shower arms, fixed or swivel outlets, shower hoses, laundry arms and similar items	Note		
Copper alloy taps, cocks and similar; including pipework in connections not exceeding 1000 long; including any connections or joints to piping and fixtures, appliances or equipment; polished chrome finish				
H	WC stop cock	no	2	

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>(Cont) TAPS, COCKS, VALVES AND SIMILAR</u>				
	Galvanised steel taps, cocks and similar; including pipework in connections not exceeding 1000 long; including any connections or joints to piping and fixtures, appliances or equipment			
A	15mm hose cock	no	1	
B	Rainwater switch including isolation valves; to rainwater supply pipework as detailed on drawing H-501/B	no	2	
	Caroma Liano range combined outlet sets; including pipework in connections not exceeding 1000 long; including any connections or joints to piping and fixtures, appliances or equipment; polished chrome finish			
C	Tap mixer set (Cat No 96135C4A)	no	4	
D	Basin set (Cat No 96147C5A)	no	2	
E	Bath set (Cat No 96148C)	no	2	
F	Shower tap set (Cat No 96149C3A) plus rail shower (Cat No 91014C3A)	no	2	
G	Washing machine cock set (Cat No 96172C)	no	2	
	<u>Thermostatic Mixing Valves</u>			
H	Thermostatic mixing valve as specified installed in hot water system including all necessary fittings	no	2	
	<u>TANKS</u>			
	Rainwater tank; including any connections or joints to piping etc			
J	Supply and install Sydney Water Tank ref C6100L steel fibre reinforced concrete in-groundwater tank complete with 600 dia. watertight access lid, stormwater discharge and backflow prevention device and submersible pump; including excavation and backfilling	no	1	

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>FIXTURES, APPLIANCES AND EQUIPMENT</u>				
Sanitary fixtures; including brackets, flush pipes, overflows, plugs and washers and similar items; including any connections or joints to piping etc				
A	Argent BetteForm Code B3600AD white bath	no	2	
B	Fowler Compact Ultra Low white WC suite	no	2	
C	Fowler Hamilton A55 white wall basin complete with chrome plated waste	no	2	
D	Clarke Utility 421 stainless steel laundry tub and white cabinet with single bypasss, assembled, code F6001	no	2	
E	Clarke Monaco Single end stainless steel kitchen bowl, single tap hole, code 5113.1R	no	2	
Solar hot water system; Edwards L350 electric boosted roof mounted; including all necessary short lengths of pipes, fittings, valves, by-passes, control panels, alarms, equipment etc.; fixed strictly in accordance with the manufacturer's instructions				
F	Hot water unit fixed to roof	no	2	
<u>STORMWATER DRAINAGE</u>				
uPVC pipes and fittings to AS/NZS 1254, with solvent cement joints; laying on a 75 thick bed of bedding material; filling with bedding material to a min. depth of 150 over the barrel of the pipe and backfilling remainder of trench as required				
G	100 dia. pipework class SN4 in trench; including excavation not exceeding 1000 total depth	m	39	
H	Ditto set vertically	m	2	
J	100 dia. bend	no	7	
K	Ditto set on back	no	4	
L	100 x 100 x 100 dia. Y junction	no	3	

To Collection \$

<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>(Cont) STORMWATER DRAINAGE</u>				
uPVC gullies, traps and accessories; including jointing to pipes, setting or surrounding with concrete, formwork and additional excavation				
A	First flush trap in ground including excavation, backfilling, connections	no	1	
Drain Connections				
B	Connection between 100 uPVC pipework and existing stormwater main; including locating and cutting into existing drain, all necessary excavation, backfilling, fittings, any additional pipework etc. and all necessary making good	no	1	
C	Connect 100 dia uPVC pipe to precast pit	no	3	
D	Ditto to first flush unit	no	2	
Pits; precast concrete including excavation, backfilling and consolidating and all components				
E	450 x 450 pit 500 - 1000 deep to invert; including grating and frame and first flush bleedpoint	no	1	
<u>SEWER DRAINAGE</u>				
Rigid uPVC pipes and fittings class DWV to AS/NZS 1260 with solvent welded joints; laid on a 75 thick bed of compacted bedding material; filling with pipe bedding material to a min. depth of 150mm over the barrel of the pipe and backfilling remainder of trench with selected excavated material as required				
F	100 dia. pipework in trench; including excavation not exceeding 1000 total depth	m	39	
G	100 dia. pipework in trench; vertical; including any additional excavation	m	7	
H	100 dia. bend	no	7	
J	100 dia. bend set on back	no	7	
K	100 x 100 x 100 dia. Y junction	no	7	

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<u>HYDRAULICS AND DRAINAGE (Cont)</u>				
<u>(Cont) SEWER DRAINAGE</u>				
	uPVC gullies, traps and accessories; including jointing to pipes, setting or surrounding with concrete, formwork and additional excavation			
A	100 dia floor waste gully inlet riser junction including screwed removable grate	no	2	
B	100 dia. clear out to surface; set in end of pipe, including vertical pipe not exceeding 1000 long, bend set on back	no	2	
C	100 dia. clear out	no	3	
D	100 dia. overflow relief gully as drawing H-501/B	no	2	
	<u>Drain Connections</u>			
E	Connection between 100 uPVC pipework and existing 150 VCP sewer; including locating and cutting into existing drain, all necessary excavation, backfilling, fittings, any additional pipework etc. and all necessary making good	no	1	

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HYDRAULICS AND DRAINAGE (Cont)

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HYDRAULICS AND DRAINAGE

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<u>ELECTRICAL INSTALLATION</u>				
<u>GENERALLY</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM Edition 5	Note		
B	Refer to the Specification for particulars of electrical services.	Note		
C	Refer to Clause P1 to P13 inclusive in section 25 of the ASMM for details of Measurement and Prices	Note		
D	Allow for complying with all relevant Acts, By-laws and regulations.	Item		
E	Allow for giving all notices, obtaining permits and completion certificates, paying fees and charges in connection with the installations.	Item		
F	Allow for testing and commissioning installations and balancing of load as evenly as possible at Practical Completion.	Item		
G	Allow for providing samples.	Item		
H	At Practical Completion allow for providing work-as-executed drawings as specified.	Item		
<u>MAINS CONNECTION</u>				
J	Contact the Supply Authority, locate existing termination pillar adjacent to Units 5 and 6 and make underground mains connection to suit new 4 x 25mm ² copper cable service.	Item		
<u>CONSUMER MAINS BETWEEN POINT OF ATTACHMENT AND MAIN SWITCHBOARD</u>				
K	50mm HDUPVC conduits including fittings laid in trenches.	m	33	
L	50mm ditto fixed to building faces; including chasing brickwalls as necessary.	m	2	
			<i>To Collection \$</i>	

<u>ELECTRICAL INSTALLATION (Cont)</u>				
<u>(Cont) CONSUMER MAINS BETWEEN POINT OF ATTACHMENT AND MAIN SWITCHBOARD</u>				
A	4 x 25mm ² (Cu) PVC / PVC cables laid in trenches (minimum 600m cover) and drawn into conduits (measured separately); include for excavation, maintaining faces of excavation, backfilling, compaction, warning tape and disposal of surplus spoil.	m	34	
B	4 x 25mm ² ditto in conduits fixed to surfaces.	m	2	
<u>MAIN SWITCHBOARD</u>				
C	Main switchboard all as detailed comprising recessed, weatherproof, galvanised painted steel meter cabinet with authority broached lock (lock and key obtained from the Supply Authority) located in cavity brick wall and having the following components installed inside: No 1 x 100 amp main switch, 415V AC 50Hz 80A bus bar, three 80A combination fuse switches, three Supply Authority Direct Connect kWh meters, two 63A circuit breakers, one 50A circuit breaker, one 20A circuit breaker with residual current device, two 10A circuit breakers with residual current device, one selector switch, one photo electric daylight switch, and all necessary auxiliary equipment required by the supply authority.	no	1	
D	Allow for arranging with the Supply Authority to install the meters.	Item		
<u>MAIN SWITCHBOARD SUB-CIRCUITS</u>				
Sub-circuits including brick chasing, conduits, cables, cable terminators, wall boxes, junction boxes, connections and earthing:				
E	Sub-circuit from main switchboard to GPO inside main switchboard cupboard.	no	1	
F	Ditto to internal light fitting inside switchboard cupboard with single switch.	no	1	

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<u>ELECTRICAL INSTALLATION (Cont)</u>				
<u>(Cont) MAIN SWITCHBOARD SUB-CIRCUITS</u>				
(Cont) Sub-circuits including brick chasing, conduits, cables, cable terminators, wall boxes, junction boxes, connections and earthing:				
A	Ditto to one internal light to Stairs and two two-way time delay switches.	no	1	
B	Area lighting underground sub-circuit from main switchboard to no. 2 external bollard light fittings and one external wall mounted light fitting comprising cabling sized to retain voltage drop within permissible limits; include for 50mm HDUPVC conduit in trenches, excavation, maintaining faces of excavation, backfilling, compaction, warning tape and disposal of surplus spoil.	no	1	
<u>SUB-MAINS BETWEEN MAIN SWITCHBOARD AND UNITS</u>				
C	2 x 10mm ² (Cu) TPI cables drawn into conduits (measured separately).	m	13	
D	30mm HDUPVC conduits including fittings chased into brickwalls.	m	11	
E	Terminate sub-mains and connect to Main Switchboard.	no	2	
F	Ditto at unit distribution boards located inside each unit.	no	2	
<u>UNIT DISTRIBUTION BOARDS</u>				
G	Unit distribution boards with recessed moulded PVC type enclosures with see-through hinged cover or door, flush wall mounted, complying with AS3190, AS/NZS 60898.1 and AS/NZS 60898.2; chased into brick wall inside each unit and having one 80A main switch, one 20A circuit breaker for stove circuit, one 20A circuit breaker for hot water unit circuit, two 16A circuit breakers with residual current device for power circuits, two 10A circuit breakers with residual current device for lighting circuits and six spare poles.	no	2	

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<u>ELECTRICAL INSTALLATION (Cont)</u>			
<u>UNIT SUB-CIRCUITS</u>			
Sub-circuits including brick chasing, conduits, cables, cable terminators, wall boxes, junction boxes, connections and earthing:			
A	Power sub-circuits from unit distribution boards with 2 x 2.5mm ² cable to six double power points and one door chime.	no	2
B	Ditto to five double power points and one single power point.	no	2
C	Lighting sub-circuits from Ground Floor unit distribution board with 2 x 1.5mm ² cable, collectively to eight internal light fittings, seven single switches, two two way switches, and two linked smoke detectors; include for balancing load over the two circuits.	no	2
D	Lighting sub-circuits from First Floor unit distribution board, collectively to eight internal light fittings, seven single switches, two two way switches, and two linked smoke alarms; include for balancing load over the two circuits.	no	2
E	Power sub circuit with 2 x 4mm ² cable to hot water heater.	no	2
F	Ditto to stove.	no	2
<u>SWITCHES</u>			
G	Clipsal 2000 Series single gang light switches with one-way switch built into brickwork in locations as shown on the drawings.	no	17
H	Ditto double gang light switches with one one-way and one two-way switch.	no	2
J	Clipsal Prestige two-way time delay push button switch.	no	2
<u>GENERAL PURPOSE OUTLETS</u>			
K	Clipsal Series C2000 double outlet GPO built into brick walls in positions directed.	no	22

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<u>ELECTRICAL INSTALLATION (Cont)</u>				
<u>(Cont) GENERAL PURPOSE OUTLETS</u>				
A	Single ditto.	no	3	
<u>INTERNAL LIGHT FITTINGS</u>				
B	1 x 32W 3000degreesK circular fluorescent surface mounted oyster light fitting complete with acrylic diffuser and lamp, Crompton Cat No. EX116M, fixed to soffit of reinforced concrete floor slab.	no	6	
C	Ditto fixed to timber framed plasterboard ceilings.	no	7	
D	1 x 22W 3000degreesK circular fluorescent surface mounted oyster light fitting complete with acrylic diffuser and lamp, Crompton Cat No. EX116S, fixed to soffit of reinforced concrete floor slab.	no	2	
E	Ditto fixed to timber framed plasterboard ceilings.	no	2	
<u>EXTERNAL LIGHT FITTINGS</u>				
F	2 x 9W 3000degreesK compact fluorescent surface mounted bunker light fitting complete with silver eyelid diffuser and lamp, Crompton Cat No. EX3263, fixed to brickwalls in position directed.	no	3	
G	1 x 22W 3000degreesK circular fluorescent surface mounted oyster light fitting complete with acrylic diffuser and lamp, Crompton Cat No. EX116S, fixed inside Main Switchboard cabinet.	no	1	
H	Bollard light with concrete base, Inlite Martini Totem Cat No 7368.68/76375.68, 775mm high, 35W M.H. bollard, IP65, black finish complete with integral conventional gear and NDL G12 lamp mounted on an approved concrete pad.	no	2	
<u>TELEPHONE CABLING AND CIRCUITS</u>				
J	Allow for submitting application to Telstra for reticulation of new telephone service.	Item		

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<u>ELECTRICAL INSTALLATION (Cont)</u>				
<u>(Cont) TELEPHONE CABLING AND CIRCUITS</u>				
A	For tendering purposes, assume Telstra shall "excavate, pit and pipe" and provide lead-in cable to building distributor.	Note		
B	Telephone sub circuits from building distributor point to telephone outlets in positions directed inside the units, comprising 1 x 2P telephone cable in conduit; include for chasing brickwalls as necessary.	no	4	
C	Flush mounted telephone outlets fitted with RJ45 socket and built into brick walls in position directed.	no	4	
D	Allow for providing the Superintendent with a Telstra "Notification of Completion Certificate" for each telephone serviced dwelling unit.	Item		
E	Allow for testing the telephone cabling and service as specified.	Item		
<u>APPLIANCES</u>				
F	Chef EBC5231W upright oven/cooktop kitchen stove unit or approved equivalent, complying with AS 3786, connected to power supply and installed in accordance with the manufacturer's and local authority's requirements.	no	2	
G	Edwards L350 electric boosted roof mounted solar hot water system, ditto	no	2	
H	Refer to Hydraulics for connection of plumbing services to hot water heaters.	Note		
<u>SMOKE ALARMS</u>				
J	Surface mounted smoke alarms complying with CAS 378-1993 / AS1670.6 fixed to ceiling lining in positions directed and interconnected. Smoke alarms to be fitted with rechargeable battery, installed in accordance with the manufacturer's instructions and branded with manufacturer's trademark to AS 3786.	no	4	

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<u>ELECTRICAL INSTALLATION (Cont)</u>				
<u>DOOR CHIMES</u>				
A	Door chimes, complying with AS/NZS 1367 and AS 1417.1, "two note" type, connected to the Living Room 240V power circuit complete with 240/8V transformer and batteries, chime activated by a lighted push button located on brick wall in position directed with chime and transformer mounted above main entrance door inside unit; all chimes and push buttons must be white.	no	2	
<u>TELEVISION SYSTEM (MATV)</u>				
B	The Master Antenna Television System (MATV) is to be in accordance with IEC 60096-3 and AS 1417.1. Refer to the Specification for details of system performance, picture quality and rectification.	Note		
C	UHF/Digital free-to-air antenna installed on tile roof ridge capping in position directed complete with galvd. wire stays, turnbuckles and anchors.	no	1	
D	Circuit from antenna to headend box comprising minimum RG6 coaxial cable having single core with a nom impedance of 75ohms complying with AS/NZS 1367; include for connecting to antenna and headend.	no	1	
E	Headend fitting to suit the MATV system located in position directed.	no	1	
F	Sub circuit from headend to unit outlets comprising RG6 coaxial cable as before described; include for connecting to headend and wall plates.	no	4	
G	Flush mounted high impact plastic wall plates with coaxial cable socket; include for fixing to rendered brickwall in position directed.	no	4	

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ELECTRICAL INSTALLATION
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<u>EXTERIOR ELEMENTS</u>				
<u>GENERALLY</u>				
A	Refer to the Introduction, General Rules and Recommendations of the ASMM Edition 5	Note		
B	Refer to the relevant Specification sections containing particulars of exterior elements including landscaping.	Note		
C	Refer to Clause P1 in section 27 of the ASMM for details of Measurement and Prices..	Note		
<u>SAMPLES</u>				
D	Allow for providing samples of topsoil, mulch and compost as specified	Item		
<u>ITEMS MEASURED IN OTHER TRADE SECTIONS</u>				
E	Stripping of topsoil and excavation of garden beds measured in Groundworks.	Note		
F	Steps and slab outside main entry door measured in Concrete	Note		
<u>FILLING TO GARDEN BEDS</u>				
G	Cultivate sub-grade to garden beds 100 deep.	m2	37	
H	225 thick topsoil mixture to garden beds comprising three parts imported topsoil and one part compost, all as specified .	m2	37	
J	Organic fertiliser as specified applied at rate of 3kg per 10m2 including cultivation to a depth of 200 and raking to an even surface level with adjacent surfaces	m2	37	
K	75 thick shredded pine flake mulch	m2	37	
<u>PLANTING</u>				
Supply in 140 dia pots and plant in beds all as specified:				
L	Ceria turbinata	no	10	
M	Cotula turbinata	no	10	
N	Creeping Boobialla (Prostrate Myoporium)	no	10	

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<u>EXTERIOR ELEMENTS (Cont)</u>				
<u>(Cont) PLANTING</u>				
: Supply in 250 dia pots and plant in beds all as specified:				
A	Grevillea acanthifolia	no	8	
B	Callistemon "Captain Cook"	no	8	
C	Boronia deanei	no	8	
<u>TURFED AREAS</u>				
D	150 thick topsoil mixture to turfed areas comprising five parts imported topsoil and one part compost, all as specified	m2	166	
E	"Sir Walter" buffalo turf including fertilising, topdressing and rolling all as specified	m2	166	
F	Allow for protection of new turf	Item		
<u>MAINTENANCE</u>				
G	Allow for maintaining all landscaping as specified until thirteen (13) weeks after Practical Completion	Item		
<u>MOWING STRIPS</u>				
H	250 x 75 concrete mowing strip comprising 20MPa concrete reinforced with one layer of L8TM3 trench mesh, poured on ground between edge boards, including 50 thick pea gravel and 25 sand blinding, trowel finish to exposed surfaces, tooled edges and 10 thick preformed, bituminous felt expansion joints spaced evenly at maximum 1500mm centres and at junctions	m	35	
<u>PATHS</u>				
Reinforced concrete paths comprising the following:				
J	50 sand bed	m2	27	
K	20 MPa concrete in paths not exceeding 100 thick poured on ground :[27 m2]	m3	3	
L	Edge board not exceeding 250 high	m	46	

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<u>EXTERIOR ELEMENTS (Cont)</u>			
<u>(Cont) PATHS</u>			
(Cont) Reinforced concrete paths comprising the following:			
A	SL82 fabric reinforcement	m2	25
B	Broom finish	m2	27
C	100 high x 10 thick, preformed, bituminous felt expansion joints	m	21
D	Allow for tooling edges as specified	Item	
<u>DRIVEWAY</u>			
Reinforced concrete driveway comprising the following:			
E	Excavate from stripped level not exceeding 1m deep :[80 m2]	m3	15
F	Proof roll subgrade and fill soft spots as specified	m2	80
G	100 thick basecourse	m2	80
H	75 sand blinding	m2	80
J	32 MPa concrete to driveway, exceeding 100 not exceeding 200 thick :[80 m2]	m3	12
K	Edge board not exceeding 250 high	m	57
L	SL82 fabric reinforcement	m2	154
M	Surface finish to match finish to existing driveway	m2	80
N	150 high x 10 thick, preformed, bituminous felt expansion joints	m	29
P	Allow for tooling edges as specified	Item	
<u>CURING CONCRETE</u>			
Q	Allow for protecting and curing concrete as specified [35m of mowing strips, 25m2 of paths, 80m2 of driveway]	Item	

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